



European Union Aviation Safety Agency
Comment-Response Document 2018-14

Appendix
to Opinion No 03/2019

RELATED NPA 2018-14 — RMT.0703 (INCLUDING ALSO RMT.0704) — 24.6.2019

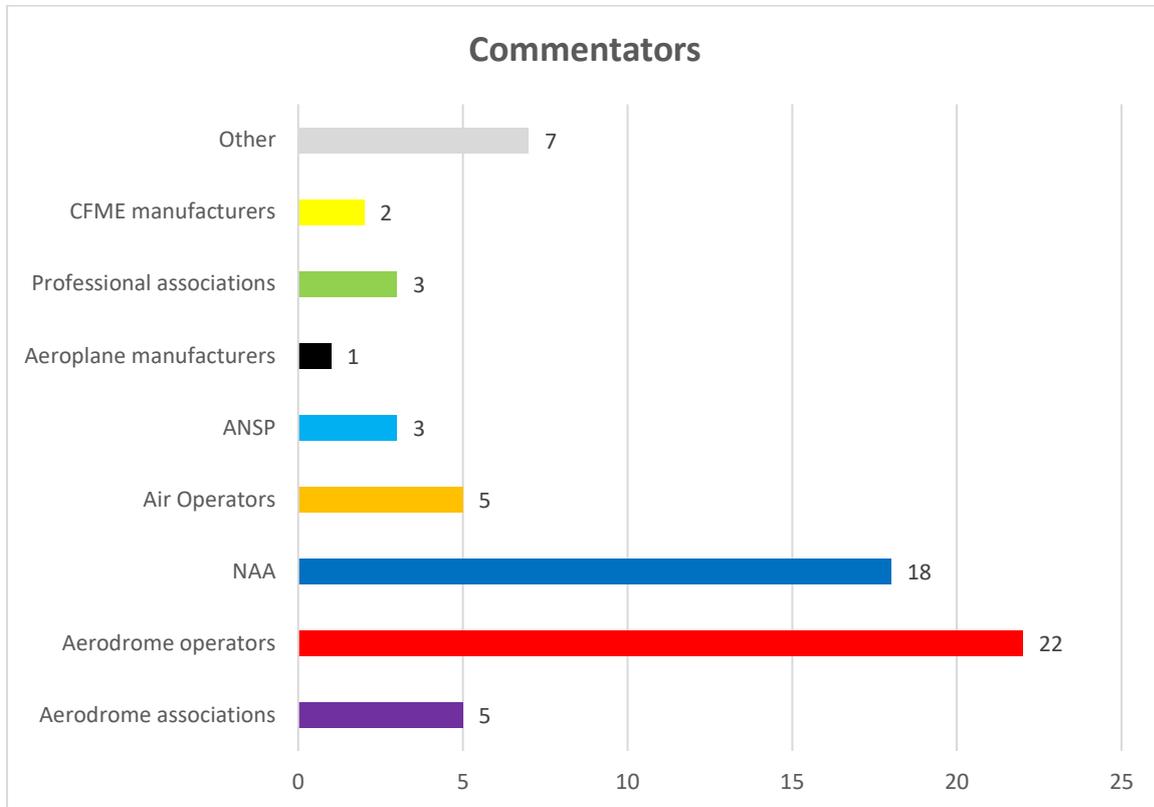
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1. Summary of the outcome of the consultation

1 785 comments were received on NPA 2018-14 from 66 commentators from the following categories of stakeholders:

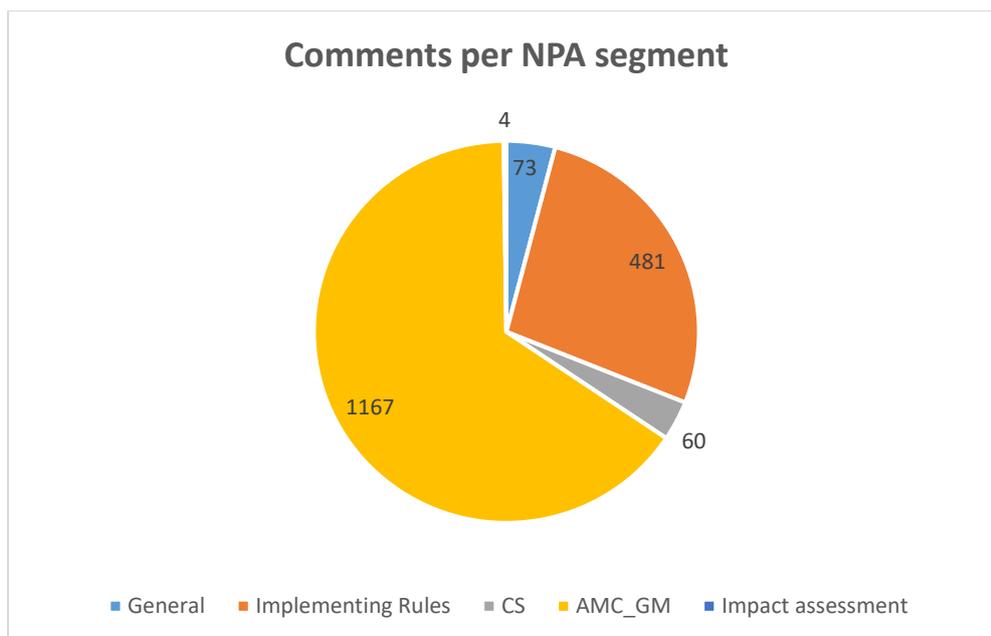


Comments were submitted to all parts of the NPA and they were of a mixed nature, ranging from support to the proposals, to proposals for changes or improvements and, in some cases, expressing disagreement.

Several comments were repetitive and in those cases, the response is either duplicated or referring to the original comment.

The comments per NPA segment were distributed as follows:





The majority of commentators focused on the following topics:

Comments on the authorisation of vehicle drivers

It was noticed that there was a variety of comments with regard to the proposed provisions. Some of the comments asked for the clarification of a term that was used in the proposed text, an issue that was resolved through the provision of additional material.

Moreover, some comments focused on the use of the instructors and assessors and the use of technology in the context of training, which has led to the amendment of the proposed material, in order to clarify the intent of the provisions, but also to unify proposed provisions with other existing material, in order to avoid repetitions and overlaps.

In addition, other comments focused on the proposed prior approval by the competent authority with regard to the provision of the foreseen training by organisations other than the aerodrome operator, which has led to the amendment of the text. Some comments focused on the use of the term 'on-the-job-training' which was eventually replaced, in order to avoid potential misunderstandings about the intent of the proposed material. Furthermore, there were comments in regard to the use of a common radio frequency as well as the language for communication purposes, which led to the amendment of the proposed text.

It was also noticed that some of the comments were focusing on the proposed frequency of recurrent training and proficiency checks, which however were not accepted mainly for reasons related to legal certainty, the provision of a level playing field, and the need to maintain an acceptable level of safety.

Comments on the origination of NOTAM

There was a diversity of the comments received with regard to the proposed provision regarding NOTAM origination, which is in accordance with the provisions of Annex 15 and complements the relevant EASA Opinion No 02/2018, which addresses the issuance of NOTAM. Apart from the comments which focused on specific issues, such as answering a question that had been posed to the stakeholders by EASA, or posing specific questions, or expressing support, or making suggestions to improve the text and the two formats that had been provided, it was noticed that there was a certain

focus on the proposed rule structure, and the uncertainty about the responsibility for NOTAM origination, which seems to be related to the general issue of data origination, which has not been addressed yet.

Based on the comments received, certain parts of the text were incorporated in a different provision, in order to avoid repetitions, while other proposed provisions were amended. However, a certain number of comments have not been accepted because NOTAM origination requires clarity in terms of responsibilities and the actions to be accomplished by the originator, in order to prevent impact on the air navigation system.

Comments on the reporting of runway surface condition

There was a general support to the proposed rule, which is in line with ICAO Annex 14 provisions. Comments received in regard to the improvement of the text, as well as proposals to ensure consistency between the terms used in the SNOWTAM Form and the terms used to describe the runway surface conditions, have been generally accepted.

The main controversial issue was the reporting of runway surface conditions. The EASA proposal does not allow the reporting of friction measurement values. Some commentators expressed the view that this practice should be allowed. EASA does not share this view because friction measurement values are not correlated with aeroplane performance data; therefore, they cannot be used by the flight crews. Furthermore, currently there are no performance standards for friction measuring devices to ensure accuracy and reliability of friction measurements on contaminated surfaces.



2. Individual comments and responses

In responding to comments, a standard terminology has been applied to attest EASA's position. This terminology is as follows:

- (a) **Accepted** — EASA agrees with the comment and any proposed amendment is wholly transferred to the revised text.
- (b) **Partially accepted** — EASA either partially agrees with the comment, or agrees with it but the proposed amendment is only partially transferred to the revised text.
- (c) **Noted** — EASA acknowledges the comment but no change to the existing text is considered to be necessary.
- (d) **Not accepted** — The comment or proposed amendment is not agreed by EASA.

(General Comments)	-
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comment

1

comment by: *Aerodrome safety regulation departement*

Gathering in a common NPA two different subjects (RMT 703 and 704) was not a good idea since RMT 704 is attached to a fixed deadline and thus shall not suffer any delay due to issues raised by 703.

The content of RMT 703 is totally new for member states since the RMT wasn't opened to member states participation of experts. However the consultation time has been very short and the new proposed amendments very detailed. The new requirements are very demanding for aerodrome operators in terms of responsibilities of third parties regarding training, vehicle maintenance, driving authorisation... especially on big structures.

Moreover RMT 703 objectives interfere with the new basic regulation requirements regarding groundhandling, however we see no element of coordination between 703 requirements and the current work on the groundhandling roadmap. The new provisions brought by RMT 703 give the aerodrome operator new responsibilities, in particular regarding the supervision of personnel training and vehicle maintenance of other organisations operating at the aerodrome. Regarding groundhandling, these responsibilities raise the question of their compatibility with those conferred on the State, which is designated as the competent authority for these service providers in Article 62 of the new BR. This competence of the State addresses in particular the compliance to the essential requirements, applicable to the training of staff and the maintenance of groundhandling equipment. Did the work of the RMT 703 properly integrate the current and future orientations concerning the supervision of ground handling assistants?

Regarding 704, NPA 2018-14 transpose the last amendment of annex 14 in IR ADR. It aims at implementing GRF and is applicable on 5 November 2020. ATS services provisions regarding GRF are stated in amendment 7-B of doc 4444 (PANS-ATM). Thus, neither this NPA neither Opinion 03/2018 (technical requirements of IR ATM-ANS part ATS - regulation (EU) n° 2017/373) transposes the complete package of ICAO provisions. ATS provisions supporting GRF implementation should be fully



	stated in European regulation and applicable from 5 November 2020 in SERA and ATM/ANS.
response	<p>Noted</p> <p>As both tasks relate to runway safety, the intent is to provide a single EASA Opinion, following a single timeline, and a single text for easier review. The time provided for consultation is in accordance with the EASA rulemaking procedure.</p> <p>Moreover, with regard to RMT.0703 it has been an Agency task, as described in the ToR, which EASA consulted with its stakeholders in 2017. Moreover, the areas that are covered are not entirely new, as they build upon existing provisions, reflect long-standing operating practices, stemming from ICAO material and the EAPPRI/EAPPRE. No new responsibilities for aerodrome operators are introduced, as the proposed rules are addressing the issues in a more consistent manner, taking into account the need to ensure the necessary clarity, the required legal certainty and enforceability, in line with all other aviation domains and the Chicago Convention.</p> <p>The issue of groundhandling is not found to be relevant to this task, as the proposals address the general responsibilities of the aerodrome operator in the context of runway safety, without addressing groundhandling services providers. The responsibilities of the groundhandling organisations are to be dealt with in the future. The overall structure and proposed text have been reviewed, and where necessary amended, to ensure the above principles are met.</p> <p>Concerning RMT.0704, all the necessary changes to the ATM/ANS and SERA Regulations will be included in the Opinion that EASA will publish.</p>

comment	<p>214 comment by: <i>GdF</i></p> <p>The NPA seems to be well structured and we would like to express our gratitude for a job well done.</p> <p>On a side note: The fact, that the CRT still requires Adobe Flash is unacceptable. Please do not forget, that Adobe Flash is nearing the end of its life cycle (2020).</p>
response	<p>Noted</p> <p>EASA would like to thank you for your support regarding the proposed changes.</p>

comment	<p>230 comment by: <i>EUROCONTROL</i></p> <p>EUROCONTROL supports the proposed changes to Regulation 139/2014 and its annexes. All those proposed changes are aimed to improve safety of aerodrome operations by implementing provisions of ICAO SARPS and Docs, and/or recommendations of the action plans developed by us (EUROCONTROL) with the support of our stakeholders. Having said that, we are aware that the new requirements will have a major impact on aerodrome operators and will significantly affect the aerodrome ATS provided by ANSP. Just one requirement to mention here</p>
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response	<p>- ADR.OPS.B.030 Surface movement guidance and control system – that mandates the implementation of SMGCS at all airports! The above requirement will indeed have impact on all elements of the service providers’ functional systems and on the managerial systems (including financial aspects), however, should contribute to improved safety.</p> <p>Noted</p> <p>EASA takes note of the support regarding the proposed changes to Regulation (EU) No 139/2014 and the associated material. An assessment of possible impact of the proposed changes is already conducted in this respect.</p> <p>With regard to the particular comment about the impact of ADR.OPS.B.030, which mandates the implementation of the SMGCS at all aerodromes, please note that, according to Annex 14, indeed all aerodromes, irrespective of size and types of operations, are expected to have in place an SMGCS. Moreover, from this point of view, there is no impact, as the relevant SMGCS requirement is already transposed in Regulation (EU) No 139/2014 since 2014. The new, proposed, provisions, aim simply at facilitating the implementation of the SMGCS, while they are conditional in terms of applicability.</p>
comment	<p>300 comment by: <i>European Powered Flying Union</i></p> <p>A general remark from the European Powered Flying Union (EPFU)</p> <p>We thank the Agency for preparing this NPA as there is nothing to say and write against provisions reducing all sorts of ground-operations related incidents to a figure as near to “zero” as possible, but to achieve this, among other means, by requiring a language proficiency near to “level 4” (it is mentioned nowhere in the text, but I think, reading between the lines, this is the idea behind) is in our eyes “mission impossible”, unless one invests a lot of time and money to educate drivers which never have been chosen based on language skills. As ICAO states, there are no shortcuts to obtain the skills required, simple phraseology will not cover the requirements, particularly not in case of incidents and accidents at aerodromes of all sizes.</p> <p>NPA 2018-14 is not an ideal platform to prepare regulations for winter operations, e.g. in Norway (Alta, Båtsfjord, Honningsvåg, Kirkenes, Mosjøen, and Vadsø are mentioned). What about national solutions for these very special sort of operations?</p> <p>Mixing operations-related, training-related, and design related aspects is not a good idea. Including in an NPA requirements applicable to the largest European airports and at same time such applicable to small one’s like Båtsfjord (RWY 800 m), Førde (RWY 800 m), Hammerfest (RWY 882 m), and Honningsvåg (RWY 882 m) is not appropriate, we think.</p> <p>European Action Plans for the Prevention of Runway Incursions and Excursions (EAPPRI, EAPPRE) themes, control of pedestrians at the aerodromes (at night?), the introduction of new requirements for runway surface condition assessment and</p>



	reporting, aerodrome snow plan, aerodrome maintenance, aircraft towing and Foreign Object Debris (FOD) control programme, performance standards for runway surface friction measurement devices as well as certain changes to existing requirements related to surface movement guidance and control systems (SMGCS) and other operational activities are also proposed. Finally, the new requirements for runway surface condition assessment and reporting are aligned with the outcome of RMT.0296 'Review of aeroplane performance requirements for commercial air transport operations'. That is too much for one NPA alone, covering RMT.0296, 0703. 0704
response	Noted

comment	<p>307 comment by: <i>Finnair</i></p> <p>FINNAIR COMMENTS SUM-UP:</p> <p>As described in the individual comments per section, Finnair as a northern operator has a few main issues with NPA 2018-14. As the NPA is presented now, it is conflicting itself in many parts with regards to upgrading and downgrading the RWYCC based on friction measurements or other clues. Upgrading and Downgrading the RWYCC by competent trained personnel using a well maintained and calibrated friction measuring carts must be clearly and consistently allowed by the ruling. A downgrade based on friction measurements must always be possible, because reporting the RWYCC only based on the contaminant type and depth can be very misleading and dangerous in certain conditions. In some parts of the NPA this is not allowed, as seen in the detailed comments. An upgrade must be allowed from RWYCCs 0 and 1 to max RWYCC 3, and it must <u>not</u> be required that the measured friction would be equivalent to a wet runway in order to upgrade from 0 or 1 to max 3, as currently stated in "GM2 ADR.OPS.B.037(b) Assessment of runway surface condition and assignment of runway condition code (RMT.0704) DOWNGRADING AND UPGRADING, point f)" page 156.</p> <p>Our airport authority Finavia has estimated based on 5 years of analyzed runway data during winter period, that if an upgrade based on friction measurements from RWYCC 0 and 1 to max RWYCC 3 <u>would not be allowed or would require a friction equal to RWYCC 5 to be shown</u>, that would result to <u>runway closure</u> in the order of over 10% of all cases. Based on that Finnair analyzed potential revenue losses and they would be very substantial.</p> <p>So to conclude the summary: Friction measuring must be allowed with all runway conditions provided that the measurements are done by trained authorized personnel and with well maintained and calibrated friction measuring devices. The measurements must be allowed to be used for <u>downgrade</u> purposes with <u>all rwy conditions</u>, and for upgrade purposes from RWYCC 0 and 1 to max RWYCC 3, without the limitation of getting at least RWYCC 5 equivalent values before update to RWYCC 3.</p> <p>Please see detailed comments included per NPA section.</p>
response	Noted



The use of friction measurement devices as part of the overall assessment process is not prohibited. However, any upgrade or downgrade of the runway condition code should not be based solely on friction measurements. Instead, it needs to be supported also by other means as described in the relevant AMC and GM. Furthermore, currently there are not any performance standards available to approve such devices, and friction values cannot be correlated with specific runway condition codes. This is also supported by FAA SAFO 19001 3/11/19 where it is stated that friction measurement devices values are no longer used to determine and report surface conditions because joint industry and multi-national government tests have not established a reliable correlation between runway friction values and the relationship to aeroplane braking performance. EASA has the view that the measurements could be used in a comparative way in order to provide an indication to the aerodrome operator whether the runway surface conditions have been improved or are worsening. The fact that the upgrade from RWYCC 0 and 1 to RWYCC 3 requires at least RWYCC 5 equivalent values is a safety margin. Nevertheless, this is only GM which does not prevent the aerodrome operator from establishing another method, which however should be known to the aeroplane operators.

comment 378 comment by: *Federal Office of Civil Aviation (FOCA), Switzerland*

The Federal Office of Civil Aviation (FOCA) would like to thank the agency for the opportunity to comment on this NPA.

response Noted

EASA would like to thank FOCA for its contribution to this NPA.

comment 437 comment by: *TopP Oy*

Attachments [#1](#) [#2](#) [#3](#)

Global Reporting Format (GRF), RCAM and SNOWTAM is primarily designed for LANDING not for TAKE-OFF:

RWYCC as input to aeroplane landing performance calculation is or will be supported by aeroplane manufacturers.

Aeroplane take-off performance calculation input is always (few exceptions do exist) one specific contaminant representing the whole runway. These specific contaminants supported by aeroplane manufacturers are as follows:

- dry
- wet
- compacted snow
- wet snow
- dry snow
- slush
- standing water



- ice (dry)

Conclusion:

GRF eq. RCAM and the new SNOWTAM format is primarily designed to cover landing. The new reporting format includes several contaminants not supported by the aeroplane manufacturers as take-off calculation input parameter (see pictures 1, 2 and 3).

Aeroplane take-off performance calculation can take only one contaminant as input. The new reporting format may provide two contaminants “contaminant on top of contaminant” for each runway third eq. maximum six contaminants for whole runway.

There is a fair possibility, that pilots do not have sufficient information available to decide the one significant contaminant representing the whole runway for their take-off. Thick contaminant requires high V1 and thin contaminant requires low V1. Failure to choose correctly between thin versus thick contaminant may lead fatal situation involving high speed and a lot of fuel.

In the assessment process, it is required by the inspector to have aeroplane performance knowledge, when deciding which observed contaminants are most critical for the aeroplane performance per each runway third. This requirement is not realistic and easily leads to wrong decisions further reflected as wrong information to pilots.

response

Noted

Please refer to GM1 ADR.OPS.B.037(b).

comment

438

comment by: *TopP Oy*



SNOWTAM Situational Awareness section item order:

In SNOWTAM Situational Awareness section, the referred order of items I) to S) jump back and forth between logical airport areas: runway (RWY), taxiway (TWY) and apron (APRON). This leads to to confusing structure of the message string.

It would be clearer to publish the situational awareness message string in such a manner, that in the beginning of each logical area would have fixed string representing area type (RWY, TWY, APRON), space and area designator. Information items for each logical area would be published in following order (area colours added for demonstration purposes):

- **Runway specific items: I), J), K), L), M), O), S), T)**
- Taxiway specific items: N), P), T)
- Apron specific items: R), T)

Example of awareness section, when area information is combined into logical groups having respective area designator only once in the beginning:
RWY 04L REDUCED LDA TO2600. DRIFTING SNOW. LOOSE SAND. CHEMICALLY TREATED. SNOWBANKS LR23 FM CL. ADJ SNOWBANKS. RWYCC DOWNGRADED. RUBBER ACCUMULATION ON SECS A AND C. TWY A SNOWBANKS LR15 FM CL. MEDIUM TO POOR. VARIATION IN FRICTION. APRON NORTH MEDIUM TO POOR. SANDED.

Note: ICAO Doc 9981 AERODROMES PART II quote:

1.1.2.6 The syntax requirement in 1.1.2.5 shall be strictly adhered to when providing the assessed information through the RCR.

response Not accepted

The order of the presentation of information in the SNOWTAM is standardised to allow pilots to interpret the information in a consistent way, irrespective of the aerodrome or the State they are flying. Any change in the order may lead to misinterpretation, which could create a safety issue.

comment 439

comment by: TopP Oy

SNOWTAM item H) versus item I) order:

Runway length eq. item I) is the “core” airplane performance calculation parameter. Runway width eq. item H) has basically nothing to do with airplane performance.

Airplane manufacturers may publish guidance material (not limitations) regarding crosswind limits relative to runway condition code (braking action). Occasionally manufacturers also publish recommendations regarding runway width.



response	<p>SNOWTAM format would be more logical if items I) and H) would switch places. Reduced runway length belongs to airplane performance calculation section. Reduced runway width belongs to situational awareness sections.</p> <p>Not accepted</p> <p>The order of the presentation of information in the SNOWTAM is standardised to allow pilots to interpret the information in a consistent way, irrespective of the aerodrome or the State they are flying. Any change in the order may lead to misinterpretation, which could create a safety issue.</p>
comment	<p>487 comment by: UK CAA</p> <p>Page No: General</p> <p>Paragraph No: All</p> <p>Comment: It is noticeable that the material being presented for RMT.0704 (intro of GRF) has been set at the appropriate levels for IR/AMC and GM. We believe this is as a result of an expert group assisting EASA with the development of requirements.</p> <p>Unfortunately, this does not appear to be the case for RMT.0703 (vehicles/drivers etc). Had an expert group been set up for this task we believe there would have been a more appropriate allocation of requirements and many of the comments we have made may have been unnecessary.</p>
response	<p>Noted</p> <p>RMT.0703 has been an Agency task, as described in the ToR, which EASA consulted with its stakeholders in 2017, to ensure, amongst others, the transposition of ICAO SARPs, PANS provisions, EAPPRI recommendations, and other supporting material.</p> <p>The proposed rules need to ensure the necessary clarity, the required legal certainty and enforceability, in line with all other aviation domains and the Chicago Convention. The overall structure and proposed text have been reviewed, and where necessary amended, to ensure that the above principles are met.</p>
comment	<p>528 comment by: ISAVIA ohf.</p> <p>Isavia welcomes a synchronized global reporting format for runway condition assessment.</p> <p>However, we support the general comments and concerns submitted by ACI Europe. In particular, we share the general concerns of other ACI members regarding the timeframe until implementation.</p> <p>We believe the timeframe until implementation in November 2020 is too short to ensure a safe and reliable transition to the proposed runway condition assessment framework and reporting format. In our opinion, the development of information and communication systems, training of personnel etc., and not least harmonization of these functions across national borders would be more successful if a transitional</p>



response	<p>period was included in the schedule for implementation, postponing the final adoption by one year.</p> <p>Noted</p> <p>The timelines of the task have been communicated through the published ToR.</p>
comment	<p>535 comment by: <i>Finavia Oyj</i></p> <p>Attachments #4 #5 #6</p> <p><u>Global Reporting Format (GRF), RCAM and SNOWTAM is primarily designed for LANDING not for TAKE-OFF:</u></p> <p>RWYCC as input to aeroplane landing performance calculation is or will be supported by aeroplane manufacturers.</p> <p>Aeroplane take-off performance calculation input is always (few exceptions do exist) one specific contaminant representing the whole runway. These specific contaminants supported by aeroplane manufacturers are as follows:</p> <ul style="list-style-type: none"> - dry - wet - compacted snow - wet snow - dry snow - slush - standing water - ice (dry) <p><u>Conclusion:</u></p> <p>GRF eq. RCAM and the new SNOWTAM format is primarily designed to cover landing. The new reporting format includes several contaminants not supported by the aeroplane manufacturers as take-off calculation input parameter (see pictures 1, 2 and 3).</p> <p>Aeroplane take-off performance calculation can take only one contaminant as input. The new reporting format may provide two contaminants “contaminant on top of contaminant” for each runway third eq. maximum six contaminants for whole runway.</p> <p>There is a fair possibility, that pilots do not have sufficient information available to decide the one significant contaminant representing the whole runway for their take-off. Thick contaminant requires high V1 and thin contaminant requires low V1. Failure to choose correctly between thin versus thick contaminant may lead fatal situation involving high speed and a lot of fuel.</p> <p>In the assessment process, it is required by the inspector to have aeroplane performance knowledge, when deciding which observed contaminants are most critical for the aeroplane performance per each runway third. This requirement is not realistic and easily leads to wrong decisions further reflected as wrong information to pilots.</p>



response Noted
Please refer to GM1 ADR.OPS.B.037(b).

comment 536 comment by: *Finavia Oyj*

SNOWTAM Situational Awareness section item order:

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It would be clearer to publish the situational awareness message string in such a manner, that in the beginning of each logical area would have fixed string representing area type (RWY, TWY, APRON), space and area designator. Information items for each logical area would be published in following order (area colours added for demonstration purposes):

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Note: ICAO Doc 9981 AERODROMES PART II quote:
 1.1.2.6 The syntax requirement in 1.1.2.5 shall be strictly adhered to when providing the assessed information through the RCR.

response Not accepted

The order of the presentation of information in the SNOWTAM is standardised to allow pilots to interpret the information in a consistent way, irrespective of the aerodrome or the State they are flying. Any change in the order may lead to misinterpretation, which could create a safety issue.

comment 537 comment by: *Finavia Oyj*

SNOWTAM item H) versus item I) order:

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response	<p>SNOWTAM format would be more logical if items I) and H) would switch places. Reduced runway length belongs to airplane performance calculation section. Reduced runway width belongs to situational awareness sections.</p> <p>Not accepted</p> <p>The order of the presentation of information in the SNOWTAM is standardised to allow pilots to interpret the information in a consistent way, irrespective of the aerodrome or the State they are flying. Any change in the order may lead to misinterpretation, which could create a safety issue.</p>
comment	<p>569 comment by: <i>ADV - German Airports Association</i></p> <p>ADV fully supports the comments provided by ACI Europe. To facilitate the timely preparation of CRD / Opinion by EASA input from German Airports (Association) will not be repeated here.</p> <p>Additional comments by ADV mainly point on national issues.</p>
response	<p>Noted</p>
comment	<p>570 comment by: <i>ADV - German Airports Association</i></p> <p>EASA NPA texts are extensive. They should be provided in a manner that is easy to read and work through. Highlighting text in blue isn't helpful in that regard. A light gray highlight should be used.</p>
response	<p>Noted</p> <p>The rule text proposed in the EASA NPAs is to a great extent — after having, of course, considered the comments received during the public consultation — the final text appearing in the final deliverables (Opinions and Decisions) published by EASA for an RMT. Following publication of the final rule text, through EU Regulations and ED Decisions for soft law, the new or amended rule text is transferred to documents generated through the eRules platform.</p> <p>The eRules platform provides access to the current applicable rules and allows quick consolidation and publication of easy-to-read documents. This eRules publication offers advanced features, such as navigation through comprehensive bookmarks and cross references, and clear identification of the General Aviation alleviations.</p> <p>In the eRules platform the tables are grey-shaded. EASA has considered the use of a slightly darker grey, but this would render the identification of changes quite difficult. In addition, printed text would become unreadable.</p> <p>On the contrary, blue was the colour that is the most visible (also considering changes in the coloured headings present in the documents generated through the eRules platform). Furthermore, printed text it is still readable.</p>

comment	<p>575 comment by: <i>ADV - German Airports Association</i></p> <p>The term "other operational areas" is undefined and inappropriate.</p>
response	<p>Noted</p> <p>The term 'other operational areas' has been contained in the previous EASA Basic Regulation since 2008, and has also been part of Regulation (EU) 2018/1139 (Annex VII, Section 2-Operations and management, point 2.1(d) and (l)). It has also been included in Regulation (EU) No 139/2014 without any reported difficulty in its implementation.</p> <p>Given the context where the term is introduced, it is meant to include areas which serve an operational purpose (on the 'airside'), but which are not part of the manoeuvring area and the apron(s). Example cases would be the service roads that exist between the terminal buildings and aprons, or the perimeter roads that exist at an aerodrome, or even areas that are used for the parking of vehicles and ground support equipment (GSE). Relevant guidance has been added.</p>
comment	<p>591 comment by: <i>Belgian CAA</i></p> <p>In general the following comments are applicable to this NPA:</p> <ul style="list-style-type: none"> - The implementing rules specified in this NPA are far too detailed, this proposal is not in line with the hierarchy used (IR, AMC, GM) in the current 139/2014 and BR, NBR provisions. Greater consideration should be given to the allocation of rulemaking, respecting the hierarchy and objectives of IR, AMC and GM. Rulemaking should be done bottom to top (GM -> AMC -> IR) and not vice versa. This method has been applied by ICAO for years and has been proven effective and appreciated by the industry. - Presumably no industry consultation has been done to create this NPA and to draft regulation based on the real life needs of the operators, CAA's and other relevant parties. (with exemption on the new global reporting format items) This should be corrected. - Provision on training in the current amendment of 139/2014 are new and are still not mature throughout the industry. The rule maker should consider this, prior to expanding the current provision on training and proficiency.
response	<p>Noted</p> <p>RMT.0703 has been an Agency task, as described in the ToR, which EASA consulted with its stakeholders in 2017, to ensure, amongst others, the transposition of ICAO SARPs, PANS provisions, EAPPRI recommendations, and other supporting material.</p> <p>In addition, there have been regular updates of the EASA advisory bodies about the intent and the progress of the rulemaking task.</p> <p>The proposed rules need to ensure the necessary clarity, the required legal certainty and enforceability, in line with all other aviation domains and the Chicago</p>

Convention. The overall structure and proposed text have been reviewed, and where necessary amended, to ensure the above principles are met.

With regard to training, please note that the current provisions of Regulation (EU) No 139/2014, as well as the proposed ones, are based on long-existing ICAO material and widely accepted practices.

comment

595

comment by: CAA Norway

COMMENT: Editorial. The terms 'aeroplane' and 'aircraft' are both used in this document. Since 'aircraft' is the most general term, it is suggested that this is used, unless an issue is specifically intended to apply to aeroplanes only.

COMMENT: Editorial. The terms 'Air Traffic Control' and 'Air Traffic Services' are both used in this document. Since 'Air Traffic Services' is the most general term, it is suggested that this is used, unless an issue is specifically intended to apply to 'Air Traffic Control' only.

COMMENT: Editorial. Wherever the terms 'pilot report' or 'special air-report' is used, we suggest that 'special air-report' is used as this is the term used in PANS AERODROMES. Note that in Opinion 2/2019, the term AIREP is used. Consistency between the Opinion resulting from NPA 2018-14 and Opinion 2/2019 is considered a must.

Air-report is a formally recognised ICAO definition: **Air-report**. A report from an aircraft in flight prepared in conformity with requirements for position, and operational/or meteorological reporting.

response

Accepted

comment

636

comment by: CAA-NL

General:

The CAA Netherlands welcomes the proposed changes to improve runway safety at aerodromes. Safety risks associated with runway safety are an important safety concern and the proposed changes will have a positive effect to mitigate these safety risks.

Detail of implementing rules:

Some of the proposed new implementing rules are very specific and detailed. The new proposed rulemaking structure deviates from the previous rulemaking hierarchy. Too much detail is included in the implementing rules.

This is specially the case in the proposed implementing rules: ADR.OPS.A.057, ADR.OPS.B.025, ADR.OPS.B.026, ADR.OPS.B.027, ADR.OPS.B.033 and ADR.OPS.C.015.



CAA Netherlands suggests to review the proposed level of detail of these proposed implementing rules and to consider moving part of the detailed prescriptive requirements to the level of Acceptable Means of Compliance/Certification Specifications.

Timeline for the Global Reporting Format

The introduction of the Global Reporting Format is supported by CAA Netherlands. However does the proposed timeline for adoption not allow sufficient time for stakeholders to implement the necessary training measures and system upgrades before 5 November 2020. CAA Netherlands suggests to develop transition measures for runway condition assessment and reporting.

response

Noted

EASA understands that the CAA-NL supports the proposals as it addresses runway safety issues. This is accomplished through the transposition of ICAO SARPs, PANS provisions, EAPPRI recommendations, and other supporting material.

With regard to the part of the comment that refers to level of detail of the proposed rules, please note that there is a need to ensure clarity, legal certainty and enforceability, in line with all other aviation domains and the Chicago Convention.

As an example, the proposed rule on NOTAM origination (ADR.OPS.A.057) needs to be clear as to when, and for which reasons, a NOTAM needs to be originated, as in this case there are no — and should not be — alternatives, as NOTAMs are meant to be issued for specific reasons. A mere cross-reference to the relevant provisions of EASA Opinion No 02/2018, proposing also implementing rules, would not be a viable solution (as explained in the relevant rationale — see page 36 the NPA), because:

- the content of the relevant provisions for NOTAM issuance concern also other cases, which are not within the responsibility the aerodrome operator, and this would cause confusion;
- the cross-reference between regulations is generally not advisable; and finally
- the level of detail of the provisions would eventually be the same.

Please note that both the overall structure and the proposed text have been reviewed, and where necessary amended, to ensure that the above principles are met.

In regard to the timelines of RMT.0704, the timelines have been communicated through the published ToR.

comment

699

comment by: *ACI Europe*

ACI EUROPE welcome the opportunity to provide comments on this important NPA. ACI has collated and consolidated comments from members and would like to present the following general conclusions:



1. Rules pertaining to RMT.0703 were largely derived from best practices and recommendations not from standards. As a result NPA 2018-14 should reflect this and keep the relevant rules at the level of Guidance Material unless otherwise recommended by the ACI EUROPE comments
2. Rules pertaining to RMT.0703 were drafted without stakeholder involvement. The number of comments received from industry indicates that better rulemaking is highly dependent on the involvement of stakeholders before drafting of an NPA. Involvement of stakeholder will achieve a better understanding of the rationale behind rules and of the intention of the rules themselves. ACI EUROPE strongly suggests the Agency invite stakeholders (e.g. via a focused group discussion) following the review of comments and prior to drafting the Opinion.
3. The hierarchy of rules should be respected keeping implementing rules at a very high and generic level and providing details in AMC and/or Guidance Materials. ACI considers the level of detail provided in much of the IRs to be too prescriptive, detailed and technical and thus unsuitable for implementing rules.
4. A closer alignment of NPA 2018-14 with other NPAs and RMTs seems to be necessary in order to avoid duplication or loss of clarity or conflict between the rules. Examples include NPA 2018-03 on AWO which also covers provisions for control of vehicles and communication or EASA CRD 2016-09(B) and EASA Opinion No 3/2018 related to the provision of air traffic services (ATS) which contained new and changed regulations to (EU) 2017/373 og (EU) 923/2012. There should be a harmonization between these and (EU) 139/2014 through this NPA.
5. A number of provisions stemming from RMT.0703 are not proportional to the size of the aerodrome, the complexity and the traffic density. In particular this affects provisions for driver training and authorizations, and the requirement to equip vehicles with transponders as well as communications between ground staff and ATC at controlled aerodromes with heavy traffic density. The Agency should consult stakeholders on the subject in order to ensure the requirements are reasonable and proportionate.
6. ACI EUROPE strongly recommends EASA to host a focus group meeting after the commenting period to seek inputs from the industry on the structure and content of the opinion.
7. ACI EUROPE propose that the Agency consider splitting RMT.0703 and RMT.0704 to allow for more time in developing RMT.0703 and move ahead with RMT.0704.

response

Noted

RMT.0703 has been an Agency task, as described in the ToR, which EASA consulted with its stakeholders in 2017, to ensure, amongst others, the transposition of ICAO SARPs, PANS provisions, EAPPRI recommendations, and other supporting material. To avoid any misunderstanding, there is a clear reference of the source of each proposed provision.

In addition, there have been regular updates of the EASA advisory bodies about the intent and the progress of the rulemaking task.

The proposed rules need to ensure the necessary clarity, the required legal certainty and enforceability, in line with all other aviation domains and the Chicago Convention. The overall structure and proposed text have been reviewed, and where necessary amended, to ensure the above principles are met.



The proposed provisions do take into account the NPA on AWO, and other regulatory material either in force or under proposal. However, this NPA used as basis the provisions of Regulation (EU) No 139/2014 that were in effect at the time of the NPA. The final text has been reviewed to ensure consistency.

With regard to the part of the comment regarding proportionality, please note that the proposed rules follow this principle and leave the necessary flexibility, where needed.

Moreover, with regard to the specific comment about the use of transponders, please note that the requirement is conditional and depends only on the type of the SMGCS that is installed at an aerodrome. Thus, if the use of an SMGCS does not require such equipment, then they do not need to be provided. However, one would normally expect that the investment for equipping an aerodrome with an SMGCS whose use requires vehicles to be equipped with transponders, should have already taken into account the need for the vehicles to be so equipped. Nevertheless, the text already foresees the possibility to allow vehicles that need to enter the aerodrome without having such equipment on board, and has also been amended to also accommodate the occasional use of authorised vehicles not equipped with a transponder or equivalent, although they normally operate within the aerodrome, just like the case of radios.

comment

702

comment by: ACI Europe

The term pilot report is used in several places. The correct term used in AMC1 ADR.OPS.B.037 (c) seems not to be Special Air-Report but pilot report. Clarification on whether pilot report or Special Air-Report should be used and their consistent usage throughout the NPA is recommended unless each term has a distinct meaning. In the latter case a definitions of pilot report and special air-report should be added. The term Special Air-Report does not seem to aligned with SEARA that allows the term to be used only in cases of volcanic ash activity and wind shear, **not** RWY conditions (ref. Reg. (EU) No. 923/2012).

response

Not accepted

ICAO Doc 4444 in paragraph 4.12.1.1 states that special aircraft observations shall be reported as special air-reports. In accordance with ICAO Annex 3, 5.5 as amended by ICAO SL 17/2016, special observations shall be made when runway braking action encountered is not as good as reported. For the same reason, SERA.12005 is updated and a new point (a)(9) is added.

comment

795

comment by: ENAIRE

- Not all EAPPRI recommendations have been taken into account.
- There is a need for regulations on the development of robust procedures for vehicles entering or crossing RWYs including but not limited to phraseology, RWY dedicated vehicle entry points (where feasible, and maximizing vehicle entry points



	<p>protected by stopbars), periodic position reports (specially for long RWY inspections or works).</p> <ul style="list-style-type: none"> · Guidelines for the development of procedures for RWY closures due to lengthy interventions (ATC procedures, protection cones, signage, ATIS, stopbars...) · Procedures for the usage of non active RWYs that must be used for taxiing and/or crossing. · Regarding reference to 7.6.3.2.2. of PANS-ATM, it would be advisable to develop guidelines so that drivers have enough vertical signage or visual references so that when operating on the airfield they can respect these distances. · There is a need to develop robust provisions to prevent vehicle-vehicle collisions or accidents involving vehicle and pedestrians. · Provisions that ensure that RWY inspections are performed after works on the RWY. · Provisions that prevent the presence of drivers unfamiliar with the aerodrome or that they are accompanied by marshalls in areas close to TWY and specially adjacent to RWYs. · Ensure that drivers involved in RWY ops/maintenance have the minimum training and competence requirements (including basics of aeronautical English) · Ensure that all drivers operating in the manoeuvring area are trained and briefed to respect not only the V&H signage but specially the stopbars.
response	<p>Partially accepted</p> <p>The text has been reviewed and where needed amended, taking also into account future rulemaking activities.</p>
comment	<p>821 comment by: Aleksandar Ilkovski</p> <p>Swedavias opinion is that the structure deviate from previous concept/hierarchy, additionally, too much detail is included in the implementing rules rather than in the GM.</p>
response	<p>Noted</p> <p>The proposed rules need to ensure the necessary clarity, the required legal certainty and enforceability, in line with all other aviation domains and the Chicago Convention. The overall structure and proposed text have been reviewed, and where necessary amended, to ensure the above principles are met.</p>
comment	<p>875 comment by: Aleksandar Ilkovski</p> <p>Swedavia welcomes a global reporting format. The proposed changes will contribute to a safer aviation industry and more stringent and uniform airport operations worldwide.</p> <p>However Swedavia feels that the timeline for the changes has been compromised, resulting in a worry that an implementation according to the proposed timeline may affect flight safety.</p> <p>At the proposed rate, enough time will not be given to train and adapt the changes in a safe environment.</p> <p>Swedavia recommend EASA to postpone the implementations to 2021/Q3</p>

response Noted

In regard to the timelines of RMT.0704, the timelines have been communicated through the published ToR.

comment 876 comment by: *Aleksandar Ilkovski*

The term pilot report is used in several places. The correct term used in AMC1 ADR.OPS.B.037 (c) seems to be Special Air-Report.

response Accepted

ICAO Doc 4444 in paragraph 4.12.1.1 states that special aircraft observations shall be reported as special air-reports. In accordance with ICAO Annex 3, 5.5 as amended by ICAO SL 17/2016, special observations shall be made when runway braking action encountered is not as good as reported. For the same reason, SERA.12005 is updated and a new point (a)(9) is added.

comment 893 comment by: *Nordic Regional Airlines*

NORRA COMMENTS SUM-UP:

As described in the individual comments per section, Norra has a few main issues with NPA 2018-14. As the NPA is presented now, it is conflicting itself with regards to upgrading and downgrading the RWYCC based on friction measurements. Upgrading and downgrading the RWYCC by competent trained personnel using well maintained and calibrated friction measuring carts or other approved means must be clearly and consistently allowed by the ruling. A downgrade must always be possible, because reporting the RWYCC only based on the contaminant type and depth can be very misleading and dangerous in certain conditions. In some parts of the NPA this is not allowed, as seen in the detailed comments. An upgrade must be allowed from RWYCCs 0 and 1 to max RWYCC 3, and it must not be required that the measured friction would be equivalent to a wet runway in order to upgrade from 0 or 1 to max 3, as currently stated in "GM2 ADR.OPS.B.037(b) Assessment of runway surface condition and assignment of runway condition code (RMT.0704) DOWNGRADING AND UPGRADING, point f)" page 156.

Please see detailed comments included per NPA section.

Additionally, in long-term rulemaking development, the possibility to replace the upgrading and downgrading procedures with more accurate direct reporting of RWYCC should be considered. The direct reporting of RWYCC should take into account all available information about runway conditions instead of just contaminant type and depth, thus removing the need for upgrading and downgrading procedures.

response Noted

The use of friction measurement devices as part of the overall assessment process is not prohibited. However, any upgrade or downgrade of the runway condition code should not be based solely on friction measurements. Instead, it needs to be



supported also by other means as described in the relevant AMC and GM. Furthermore, currently there are not any performance standards available to approve such devices and friction values cannot be correlated with specific runway condition codes. This is also supported by FAA SAFO 19001 3/11/19 where it is stated that friction measurement devices values are no longer used to determine and report surface conditions because joint industry and multi-national government tests have not established a reliable correlation between runway friction values and the relationship to aeroplane braking performance. EASA has the view that the measurements could be used in a comparative way in order to provide an indication to the aerodrome operator whether the runway surface conditions have been improved or are worsening. The fact that the upgrade from RWYCC 0 and 1 to RWYCC 3 requires at least RWYCC 5 equivalent values is a safety margin. Nevertheless, this is only GM, which does not prevent the aerodrome operator from establishing another method, which however should be known to the aeroplane operators.

comment 940 comment by: *Danish Transport, Construction and Housing Authority*

Overall it is our view (CAA Denmark) that this NPA contains a number of safety-related improvements.

Otherwise we support CAA Norway in their general comment

response Noted

EASA would like to thank you for your support regarding the proposed changes.

comment 949 comment by: *Swedish Transport Agency*

Editorial. Wherever the terms 'pilot report' or 'special air-report' is used, we suggest that 'special air-report' is used as this is the term used in PANS AERODROMES. Note that in Opinion 2/2019, the term AIREP is used.

Consistency between the Opinion resulting from NPA 2018-14 and Opinion 2/2019 is considered a must.

Air-report is a formally recognised ICAO definition: **Air-report**. A report from an aircraft in flight prepared in conformity with requirements for position, and operational/or meteorological reporting.

response Accepted

ICAO Doc 4444 in paragraph 4.12.1.1 states that special aircraft observations shall be reported as special air-reports. In accordance with ICAO Annex 3, 5.5 as amended by ICAO SL 17/2016, special observations shall be made when runway braking action encountered is not as good as reported. For the same reason, SERA.12005 is updated and a new point (a)(9) is added.

comment 950 comment by: *PRG Airport*



response	PRG Airport supports the comments provided by ACI.
comment	951 comment by: PRG Airport
response	Noted
comment	952 comment by: Swedish Transport Agency
response	Noted
comment	953 comment by: PRG Airport
response	Noted
comment	955 comment by: Airside safety
response	Noted
comment	1008 comment by: Fraport AG



	<p>Fraport strongly supports all ACI comments, which were consolidated on European level. Especially Fraport will point out that, the detail which should be implemented within IR as part of this NPA is not in line with all the already existing regulation framework given for aerodromes at the time. Fraport highly recommend to review the level of detail especially for IR level and suggests to downgrade the details to AMC or GM level.</p>
response	<p>Noted</p> <p>The proposed rules need to ensure the necessary clarity, the required legal certainty and enforceability, in line with all other aviation domains and the Chicago Convention. The overall structure and proposed text have been reviewed, and where necessary amended, to ensure the above principles are met.</p>

comment	<p>1082 comment by: <i>ERAC - European Regional Aerodromes Community</i></p> <p>European Regional Aerodromes Community (ERAC) welcomes the intention of this NPA. The implementation of ICAO’s Global Reporting Format is essential for safer flights in an efficient way.</p> <p>However, the rule-structure is far away from a balanced approach. With too detailed and prescriptive IR and AMC the whole package will fail to follow the essential requirements stated in the new basic regulation in terms of adequacy and efficiency. For small and medium sized aerodromes and their usually also small and medium sized operators the effort to train and educate their personel and to establish such “perfect” system is not affordable. As a result many aerodromes need to be downgraded, while an adequate system rather could assist the aerodromes to provide at least better reports than today.</p> <p>The easiest way to fix this major concern is to downgrade most IR to AMC and AMC to GM. Pure technical and operational details should only be GM. Only the reporting format itself needs to be strictly standardised in order to establish a common language between aerodromes, ANSP, flight crews and other relevant persons. However, IR and AMC should describe the essential systematic and the objectives to be fulfilled.</p> <p>In order to consolidate the comments of many aerodromes, ERAC has coordinated with ACI Europe. ERAC has evaluated all comments from ACI Europe and many individual. Overall 98% of ACI Europe’s consolidated are in accordance with our own experience. The process to consolidate all comments was on a study-level and only possible by using excel-spread-sheets. Usually the CRT does not accept detailed comments given by such a file. However the intent is to ease the work for EASA while reviewing all comments and therefore we request to accept the attached file with the consolidated comments of ACI, each comment evaluated with ERAC’s focus and in few cases adjusted for the specific needs.</p>
response	<p>Noted</p> <p>Both rulemaking tasks (RMT.0703 and 0704) aim at ensuring, among others, the transposition of ICAO SARPs, PANS provisions, EAPPRI recommendations, and other</p>



supporting material. To avoid any misunderstanding, there is a clear reference of the source of each proposed provision.

The proposed rules need to ensure the necessary clarity, the required legal certainty and enforceability, in line with all other aviation domains and the Chicago Convention. Please note that the proposed rules leave the necessary flexibility, where needed, by establishing the objectives that need to be met.

The overall structure and proposed text have been reviewed and where necessary amended, to ensure the above principles are met.

comment	<p>1199</p> <p style="text-align: right;">comment by: SAS</p> <p>General comment: Several operators are presently implementing friction computation functions (ATSU/FMC) that classifies braking actions in one of the RCAM categories. Example Airbus' Braking Action Computation Function.</p> <p>It should be acknowledged that these systems in the future will produce valuable data that could be used to improve/revise the present RCAM and also to deliver "live" data that could improve RCC reporting.</p> <p>EASA should promote research and development in this field and also motivate stakeholders to share data for the common good.</p> <p>Text should reflect the importance and benefit of friction computation systems installed in aircraft in the future.</p>
response	<p>Noted</p>

comment	<p>1398</p> <p style="text-align: right;">comment by: UAF (Union des Aéroports Français)</p> <p>UAF consider provisions from RMT.703 are not enough mature for being implementing today in regulation. No exchange or no information have been implemented with stakeholders before this consultation.</p> <p>UAF propose to postpone these provisions later and after aviation community exchanges.</p> <p>UAF fully support ACI E comment #699 and #702</p>
response	<p>Not accepted</p> <p>RMT.0703 had been an Agency task, as described in the ToR, which EASA consulted with its stakeholders in 2017 to ensure, amongst others, the transposition of ICAO SARPs and PANS material, which are the minimum standards for universal applicability, and therefore have the necessary maturity. Moreover, EASA regularly updated its stakeholders about the progress and intent of this rulemaking task.</p> <p>The proposed rules need to ensure the necessary clarity, the required legal certainty and enforceability, in line with all other aviation domains and the Chicago Convention. The overall structure and proposed text have been reviewed and where necessary amended, to ensure the above principles are met.</p>



comment	<p>1416 comment by: <i>Brussels Airport Company</i></p> <p>The text parts provides in this NPA are often material to be included in handbooks (sharing best or good practices), but it should not be part of rulemaking due to the level of detail provided. Giving this kind of detail will overburden the aerodrome operators with administrative tasks (e.g. FOD on ALL aerodrome, training, vehicle & vehicle driver management, winter operations, etc...)</p>
response	<p>Not accepted</p> <p>The proposed text intend to ensure, amongst others, the transposition of ICAO SARPs, PANS provisions, supported by other material, which are the minimum standards for universal applicability, and therefore have the necessary maturity.</p> <p>EASA's point of view is that issues like FOD management, drivers' training, vehicle and winter operations etc. have a direct impact on safety and regularity of aerodrome operations, as demonstrated by the relevant data of the NPA. Therefore, there is a need to address these issues, in a way that ensures the necessary clarity, the required legal certainty and enforceability, in line with all other aviation domains and the Chicago Convention.</p> <p>The overall structure and proposed text have been reviewed, and where necessary amended, to ensure the above principles are met.</p>
comment	<p>1417 comment by: <i>Brussels Airport Company</i></p> <p>When making this kind of elaborate NPAs, suggestion to put the relevant IR, AMC and GM together to improve the readability and check for consistency.</p>
response	<p>Noted</p> <p>Thank you for your suggestion. The responsible EASA Department is currently working in the direction proposed.</p>
comment	<p>1419 comment by: <i>Brussels Airport Company</i></p> <p>Is it unclear what is meant by 'other operational areas' in this NPA.</p>
response	<p>Noted</p> <p>The term 'other operational areas' has been contained in the previous Basic Regulation since 2008, and has also been part of Regulation (EU) 2018/1139 (Annex VII, Section 2-Operations and management, point 2.1(d) and (l)). It has also been included in Regulation (EU) No 139/2014 without any reported difficulty in its implementation.</p> <p>Given the context where the term is introduced, it is meant to include areas which serve an operational purpose (on the 'airside'), but which are not part of the manoeuvring area and the apron(s). Example cases would be the service roads that</p>



exist between the terminal buildings and aprons, or the perimeter roads that exist at an aerodrome, or even areas that are used for the parking of vehicles and ground support equipment (GSE). Relevant guidance has been added.

comment

1422

comment by: *CAA Finland*

Friction measuring should be allowed with all runway conditions provided that the measurements are done by trained authorized personnel and with well maintained and calibrated friction measuring devices.

A downgrade or upgrade based on friction measurements should be possible, because reporting the RWYCC only based on the contaminant type and depth can be very misleading and incorrect in certain conditions.

Reliable friction measurement is achieved by long experience and proper use of the friction measuring device.

Proper use is defined as:

- device meeting the established standards
- proper initial user training
- annual user refreshment training
- weekly calibration program of each device
- annual overhaul program of each device
- respect of the device operational envelope eq. hard contaminants (wet, frost, compacted snow and ice) and maximum depth per each thick contaminant (water, slush, wet snow and dry snow)

response

Noted

The assignment of a RWYCC is based on the type and depth of the contaminant and is linked with aeroplane performance data. Friction measurements cannot be correlated with certain RWYCCs and aeroplane performance data. Nevertheless, when upgrading and downgrading a RWYCC, all the available means could be used. This does not exclude the use of continuous friction measurement devices provided that measurements are used in a comparative way and not communicated to the flight crews.

comment

1459

comment by: *Brussels Airport Company*

In order to improve the readability of the rulemaking, proposal to combine definitions from Annex I and A.002 . Definitions are sometimes repeated (e.g. dry snow). What is the rationale of having two 'definitions' sections?

response

Noted

The NPA text, which follows the NPA template, is divided into sections, depending on the regulatory nature of each affected text. In this particular case, apart from the proposed amendments to Regulation (EU) No 139/2014, there are also three different ED Decisions which are proposed to be amended. This necessitates the



presentation of the affected regulatory sets in different sections, so that the readers can understand the proposed changes for each regulatory set.

comment

1466

comment by: *Atle Vivas***General**

COMMENT: Editorial. The terms 'aeroplane' and 'aircraft' are both used in this document. Since 'aircraft' is the most general term, it is suggested that this is used, unless an issue is specifically intended to apply to aeroplanes only.

COMMENT: Editorial. The terms 'Air Traffic Control' and 'Air Traffic Services' are both used in this document. Since 'Air Traffic Services' is the most general term, it is suggested that this is used, unless an issue is specifically intended to apply to 'Air Traffic Control' only.

COMMENT: Editorial. Wherever the terms 'pilot report' or 'special air-report' is used, we suggest that 'special air-report' is used as this is the term used in PANS AERODROMES. Note that in Opinion 2/2019, the term AIREP is used. Consistency between the Opinion resulting from NPA 2018-14 and Opinion 2/2019 is considered a must.

Air-report is a formally recognised ICAO definition: **Air-report**. A report from an aircraft in flight prepared in conformity with requirements for position, and operational/or meteorological reporting.

response

Accepted

comment

1487

comment by: *Atle Vivas***APPENDIX 2 SNOWTAM FORMAT****CONDITION DESCRIPTION OVER TOTAL RUNWAY LENGTH**

COMMENT: ADD Specially prepared winter runway (SPWR)

RATIONALE: Specially prepared winter runway is a descriptor used in the RCAM and ADR.OPS.A.065.

NOTE: Changes to the NOTAM Format will affect Regulation 2017/373 with associated Annexes. May also affect 965/2012 (Opinion No 2/2019)

NOTE: Reference 965/2012 (Opinion No 2/2019). It might be useful to explain that pilots will receive the content of the RCR as a SNOWTAM for preflight planning and through the ATIS or by Voice for operational consideration (last minute update for take-off performance calculations and for landing performance at the time of landing calculations, AMC1 CAT.OP.MPA.300(a) Approach and landing conditions — aeroplanes

response

Accepted

comment

1489

comment by: *CAA Norway***A NOTE ON SAFETY PERFORMANCE INDICATORS VS THE REQUIREMENTS FOR A MANAGEMENT SYSTEM (139/2014 Annex III, ADR.OR.D.005) CAA-N (BBO)****Introduction.**

As part of the required management system for aerodromes, there are two subparagraphs of interest in this context:

ADR.OR.D.005 (b)(3)

‘a formal process that ensures that hazards in operations are identified;’

ADR.OR.D.005 (b)(5)

‘the means to verify the safety performance of the aerodrome operator’s organisation in reference to the safety performance indicators and safety performance targets of the safety management system, and to validate the effectiveness of safety risk controls;’

Location of guidance material related to safety performance indicators

Guidance material on safety performance indicators are found in GM1 ADR.OR.D.005(b)(3). This GM refers to the subparagraph in OR.D.005 related to hazard identification, and not to the paragraph in which the term ‘performance indicators’ is used (ADR.OR.D.005(b)(5)).

We find no reference to safety performance indicators AMCs and GMs to ADR.OR.D.005(b)(5), even if safety performance indicators forms part of the regulatory text in this sub-paragraph.

We are of the opinion that the content of GM1 ADR.OR.D.005(b)(3) Management system, para (5)(b) should be either:

- a) Transferred to existing AMC/GM to ADR.OR.D.005(b)(5), or
- b) Put into a new GM to ADR.OR.D.005(b)(5).

RATIONALE

As it stands, it is easy to overlook the information, as one would either look for the AMC/GMs related to the regulatory paragraph where the issue is mentioned, or search for the term ‘performance indicator’ or safety performance indicator’. If so, one will only find this term in ADR.OR.005(b)(5) and in AMC1 to same.

In GM1 ADR.OR.D.005(b)(3) Management system, para (b)(5) is ‘Hazard identification – indicators’ or ‘indicators’. We have no issues with the content of this paragraph as such, but we are of the opinion that the section on indicators is misplaced.

Obviously, performance indicators would provide good information to the hazard identification process, but we would prefer that GM(s) on performance indicators could be found in GMs to regulatory paragraph using the term.

Guidance on specific safety performance indicators.

At present, there are no GMs related to different operational concepts or areas of concern, for example low visibility operations, winter operations, apron and manoeuvring area safety.

In the process of working with comments to NPA 2014 – 18, there is proposed one GM on performance indicators for operation on specially prepared winter runways, GM1 ADR.OPS.B.036(c) Operations on specially prepared winter runways
MONITORING PROGRAMME — PERFORMANCE INDICATORS.

Comments to this will be submitted through the Comment Response process. For ease of reference our modified proposal is attached to this paper.



	<p>As we believe that winter operations in general presents challenges and hazards additional to those found in normal operation we will also propose a new GMX ADR.OPS.B.035 on performance indicators for winter operations – general. This proposal will also be submitted through the same Comment Response process. For ease of reference our new proposal is attached to this paper.</p> <p>One question is whether such thematic GMs referring to requirements to the management system (OR.D.005) should be located. There are two options: a) ADR.OR.D b) The thematic paragraph, in this cases ADR.OPS.B.036 and 035.</p> <p>Another question is whether the GM, if related to the thematic regulation, should contain a reference ADR.OR.005(b)(5).</p>
response	<p>Noted</p> <p>ADR.OR.D.005 is not subject to consultation in this NPA. Nevertheless, the comment will be taken into consideration in the regular update of the rules.</p>
comment	<p>1577 comment by: <i>Avinor AS</i></p> <p>Avinor supports all comments issued by ACI Europe.</p> <p>Avinor supports the introduction of “specially prepared winter runway” as a set of operational procedures to allow continued safe operations at airports with demanding winter conditions. It is acceptable that these procedures are available only to airports demonstrating compliance to the competent authority.</p>
response	<p>Noted</p>
comment	<p>1691 comment by: <i>ENAC Italy</i></p> <p>The following comments do not take into consideration the amendments to regulations SERA and 139/2014 deriving from the approval of amendments contained in EASA Opinions 02/2018 and 03/2018.</p> <p>In some cases those amendments have the potential to make some of the following comments un-necessary in whole or in part.</p>
response	<p>Noted</p>
comment	<p>1698 comment by: <i>ENAC Italy</i></p> <p>There’s no agreement on the reproduction of certain requirements already existing in the rule of the air, i.e. ADR.OPS.B.027 Operation of vehicles. Therefore this regulatory technique should be discontinued, and replaced with appropriate reference in the Guidance Material as needed.</p>

	<p>Justification</p> <p>The reproduction of requirements of general nature into a different rule, although may appear to be convenient for the certification process, has several contros because it:</p> <ol style="list-style-type: none"> 1. means that there are no general, above all, requirements, which is exactly the role of the rule of the air in the ICAO system 2. creates the possibility to have a divergence between the two regulations, one of which is the “master” (of more general nature), while the other is the “slave”; 3. should be applied systematically for all regulations, i.e. reproducing the entire rules of the air inside the regulation 965/2012; 4. implies that other regulations are not to be taken into consideration during the certification process.
<p>response</p>	<p>Noted</p> <p>There is a need to integrate the applicable rules of the air in the aerodrome certification process, given that the not all provisions of the rules of the air are applicable to aerodrome operators. This is expected to facilitate compliance. This objective can be achieved either by cross-referring to the applicable rules of the air, or by reproducing the relevant text.</p>
<p>comment</p>	<p>1701 comment by: ENAC Italy</p> <p>There’s no agreement on the reproduction of NOTAM requirements into reg. 139-2014.</p> <p>Therefore this regulatory technique should be discontinued, and replaced with appropriate reference in the Guidance Material as needed.</p> <p>Justification</p> <p>Although it might appear very handy to certification teams, so that they can control the NOTAM emission, there are the following contros:</p> <ol style="list-style-type: none"> 1. AIS/AIM requirements are above all subjects involved in aviation. Although they are not already in the EASA regulatory framework Part AIS/AIM of regulation 373/2017 is awaiting the approval of EASA committee. However it is also to be considered the wisdom of issuing requirements above all aviation stakeholders in the ANSP regulation. 2. NOTAM are only a part of aeronautical information publication to be managed in the operational life of an airport. AIP amendment, AIRAC amendment, AIRAC supplement are more and more important, while they are not replicated in 139/2014;
<p>response</p>	<p>Noted</p> <p>This proposal aims at specifically addressing the issue of NOTAM origination (not NOTAM issuance) and not any other relevant provision. The issue of other aerodrome data, linked to the content of the AIP, is dealt with elsewhere in Regulation (EU) No 139/2014.</p>



Understanding that the comment implies that a cross reference should be made to the relevant content of EASA Opinion No 02/2018 concerning NOTAM issuance, please note that (as explained in the relevant rationale — see page 36 the NPA), this is not the best option, mainly for the following reasons:

- the content of the provisions of Opinion No 02/2018 concerns NOTAM issuance and not NOTAM origination, but it is not applicable to aerodrome operators;
- the content of the relevant provisions for NOTAM issuance concern also other cases, which are not within the responsibility of the aerodrome operator, and this would cause confusion; and
- the cross-reference between regulations is generally not advisable.

comment

1712

comment by: ENAC Italy

The requirements dedicated to the surface movements of the vehicles should be removed while a dedicated Appendix into the rule of the air should be created, in order to have an above all applicability to all kind of airports.

Justification

Thanks to this NPA it has been highlighted that more work is needed to regulate surface movements of vehicles with respect to SERA.3210, as well as the related communications procedures, which have to be derived from those written for aircraft.

This approach has the following shortcomings:

1. It is confined to airport included in 139/2014 regulation, and therefore they are not applicable to other airports;
2. It is written for those airport where control service is provided, while do not apply to airports where AFIS service is provide, or where no ATS are provided.

For the above reasons, and the circumstance that this NPA creates requirements in SERA regulation,

response

Noted

Regulation (EU) No 139/2014 applies only to aerodromes falling under the scope of Regulation (EU) 2018/1139, while the SERA requirements apply to different aerodromes.

comment

1713

comment by: ENAC Italy

In some article (i.e. ADR.OPS.B.031 Communications) items under the perimeter of the provision of Air Navigation Services (use of transponder, communication with vehicles and pedestrians) are allocated to the Airport Operator, although “in coordination” with the ATSp.



response	<p>Airport operator has no authority on those items, therefore the term coordination should be changed in “agreement”</p> <p>Noted</p> <p>The proposed provisions are in conformity with the essential requirements for aerodromes as contained in Regulation (EU) 2018/1139, while the proposed provisions ensure the required coordination between the two parties. Please also note that a similar wording is used in EASA Opinion No 03/2018 (Requirements for Air Traffic Services).</p>
comment	<p>1766 comment by: <i>SinaJobstHAM</i></p> <p>Das NPA ist sehr umfangreich und betrifft viele verschiedene Abteilungen eines Flughafens. Wir würden empfehlen mehrere NPA's mit geringerem Umfang zu veröffentlichen und/oder für ein großes Dokument längere Kommentierungszeit einzuräumen. Außerdem würden wir es begrüßen die Einzelthemen im Inhaltsverzeichnis aufzuführen bzw. in den Listen der geänderten Regularien die Titel zu ergänzen, statt nur Paragraphen aufzuführen. Bereits die Zuordnung der Betroffenen erzeugt einen hohen administrativen Aufwand.</p> <p>Im NPA sind erst alle geänderten Implementing Rules/Verordnungen aufgeführt, und alle AMC's und GM's gebündelt an anderer Stelle des Dokumentes. Für den Lesefluss macht es Sinn für eine Thema IR, AMC's und GM's direkt aufeinander folgen zu lassen.</p> <p>Im Gegensatz zu den bisherigen ADR-Regelungen sind die Implementing Rules dieses NPAs teilweise sehr detailliert. Wir würden es begrüßen, wenn das ursprüngliche Konzept, IR sehr generisch zu halten und Details in den AMC's und GM's auszuführen, beibehalten wird.</p> <p>Des Weiteren haben wir die dringende Bitte Doppelregulierung zu vermeiden, sei es innerhalb des EASA- Regelwerks, oder auch mit anderen Rechtsgrundlagen.</p> <p>Grundsätzlich erzeugen die geplanten Änderungen einen massiven Dokumentations-, Schulungs- und Aktualisierungsaufwand mit hoher Ressourcenbindung.</p>
response	<p>Noted</p> <p>These two tasks are related as both relate to runway safety. The intent is to provide a single EASA Opinion, whose proposed provisions would be easier to review at a later stage, following a single timeline. Moreover, the areas that are covered are not new, as they build upon existing provisions, reflect long-standing operating practices, stemming from ICAO material and the EAPPRI/EAPPRE, while the time provided for consultation is in accordance with the EASA rulemaking procedure.</p> <p>Please note that the proposed rules need to ensure the necessary clarity, the required legal certainty and enforceability, in line with all other aviation domains and the Chicago Convention. The overall structure and proposed text have been reviewed and where necessary amended, to ensure the above principles are met.</p>

With regard to your suggestion regarding the order of the related material, please note that this NPA followed the NPA format available at the time of its preparation. However, the responsible EASA Department is currently working in the suggested direction.

comment

1817

comment by: *Groupe ADP*

Groupe ADP fully supports the comments provided by ACI-Europe. These comments will not be repeated in this CRT. Additional comments are provided on specific points of important concern for Groupe ADP.

response

Noted

comment

1823

comment by: *Groupe ADP*

Groupe ADP is very surprised by the level of prescription (at IR level) and the amount of details provided on points relevant to RMT.0703. In addition to the points mentioned by ACI-E on this aspect, we would like to highlight the gap between the intentions presented by the Commission and EASA relating to "Better Regulation: Performance-based, proportionality etc ..." and the elements proposed in this NPA. Please refer to:

- * whereas #12 of (EU) 2018/1139 of 4 July 2018 on common rules in the field of civil aviation etc ...,
- * slides 5 and 8 supporting the EASA NBR WS on 1/10/2018 " *promoting proportionate, performance based rules...*"
- * and EPAS 2019-2023 (22/11/2018) § 3.3 Better Regulation : *Better regulation: rules are evidence-based, where appropriate performance-based, proportionate, fit for purpose, simply written and contribute to the competitiveness of the industry.* And all the content of the § 3.3

Taking into account those intentions render many elements of RMT 703 taken at IRs and even AMCs level much more too detailed, prescriptive and lacking proportionality.

Comparing those elements to other topics already in the IR at appropriate performance based level is showing an important discrepancy that is not be explained in the rationales.

As an example to illustrate this point, the actual requirement concerning RFFS training is (ADR.OPS.B.010 (a) (3)) "*The aerodrome operator shall ensure that: [...] rescue and firefighting personnel are properly trained ...*" in line with the Essential Requirement 2.1 (m) "*the rescue and firefighting personnel shall be properly trained and qualified to operate in the aerodrome environment. The aerodrome operator shall, directly or through arrangements with third parties, implement and maintain training and checking programmes to ensure the continuing competence of this personnel*" Some details on this topic (very few) are given at GM level only. But if we compare this with proposed ADR.OPS.B025, B026 and B027 then it appears as a complete different strategy and absolutely not in line with the above "Better regulation" intentions showed in EC and EASA communication.

response

Noted



The proposed text intends to ensure, amongst others, the transposition of ICAO SARPs, PANS provisions, supported by other material, which are the minimum standards for universal applicability.

Therefore, there is a need to address these issues in a way that ensures the necessary clarity, the required legal certainty and enforceability, in line with all other aviation domains and the Chicago Convention. Please also note that the proposed rules provide for the necessary flexibility, where needed.

The overall structure and proposed text have been reviewed, and where necessary amended, to ensure the above principles are met.

comment

1824

comment by: *Groupe ADP*

Some topics relevant to RMT 0703 are concerning some of the services of Apron Management Services (Management of aircraft movements, management of vehicles and movements on apron,...)

As we are still waiting for the proposed adaptation of AMS rules to the NBR, it appears for us inappropriate to regulate on those topics without consistency with the AMS.

response

Noted

EASA consulted the ToR for RMT.0703 with its stakeholders in 2017, to ensure, amongst others, the transposition of ICAO SARPs, PANS provisions and other supporting material. The proposed provisions are in line with these ToR, while the necessary consistency between the tasks is ensured.

comment

1938

comment by: *European Cockpit Association*

Overall there is no major issue. ICAO generally transposed.

The introduction of European derogation on "Specially treated runways" is based on massive Norwegian input. ECA, in agreement with the IFALPA, opposes these rules to be established at European level. They should be a national derogation by Norway. Major overhaul of rules will require training effort for airlines. It is important to respect planned deadline of Q2/2020 for publication (which will allow 6 months for airlines to train their pilots).

response

Noted

European rules should also take into consideration the specificities of the different regions in Europe. EASA considers more appropriate to address this at European level, in order to ensure proper control by the affected authorities and EASA.

In regard to the implementation, EASA's intention is to ensure that timelines are followed.

comment	479	comment by: LfV
	LfV has no comments on NPA 2018-14.	
response	Noted	
comment	561	comment by: Liliانا TATARU
	We support this proposal, because we consider welcomed the new operational requirements meant to reduce the number of runway safety-related accidents and serious incidents involving runway incursions, but also other runway-safety-related events, such as runway confusion, ground collisions, runway excursions, from an aerodrome's point of view. We also agree that is necessary to ensure an adequate framework for the safe use of vehicles within an aerodrome environment and is required to implement a holistic approach for the control of FOD at aerodromes. All of these, in order to enhance the safety on the aerodromes.	
response	Noted EASA would like to thank you for your support regarding the proposed changes.	
comment	1404	comment by: Copenhagen Airports A/S
	Copenhagen Airports supports in general the adoption of Amendment 13b to the ICAO Annex 14 (RMT 0704). We highly support the importance of having local adjustments and built-in flexibility to allow for local variations. Due to the fact that EASA proposes differences from ICAO Amendment and final requirements can not be expected until the Decision date of 2020/Q2 will cause severe challenges to the airport to implement and be ready to the worldwide application date of November 2020. Copenhagen Airport rely on semi automated systems to support the assessment and distribution of reported runway winter conditions. Any system changes as late as 4 months before actual operation will be virtually impossible no matter how resilient the systems are.	
response	Noted In regard to the timelines of RMT.0704, the timelines have been communicated through the published ToR.	

EXECUTIVE SUMMARY

p. 1

comment	700	comment by: ACI Europe
	ACI EUROPE supports the introduction of the Global Reporting Format (GRF) as mandated by ICAO into European law. However, NPA 2018-14 envisages the adoption of the IRs by the European Commission and the ED Decision for CS, AMC and GM only in Q2/2020. In the best case this would mean that rules are published	



on 1st April 2020 (worst case 30th June 2020). Even in the best case scenario the proposed publication schedule would not allow sufficient time for implementing the rules, train all staff and implement and the necessary changes to systems before 5th November 2020. The need for training and systems changes would not only affect airport operators but also ATC, airlines, pilots and others. ACI EUROPE suggest to either expedite the adoption of implementing rules by the EC and the ED Decision to before the winter operations begin in 2019 or the Agency should develop transition measures for runway condition assessment and reporting in collaboration with stakeholders in order to avoid traffic disruptions due to inadequate staff training or lack of system upgrades. The Agency should develop transition measures for RWY condition assessment and reporting in collaboration with stakeholders in order to avoid traffic disruptions due to inadequate staff training or lack of system upgrades.

response Noted

In regard to the timelines of RMT.0704, the timelines have been communicated through the published ToR.

comment 1354 comment by: *Wideroe Flyveselskap AS*

Widerøe's Flyveselskap AS supports the proposition for introduction of new requirements for runway surface condition assessment and reporting. Harmonization with a global standard is most welcome, and will reduce the risk for misunderstanding that may lead to runway excursions.

response Noted

EASA would like to thank you for your support regarding the proposed changes.

comment 1732 comment by: *UAF (Union des Aéroports Français)*

UAF support ACI E comment #700

response Noted

Please refer to the reply to comment No 700.

Timeline p. 1

comment 701 comment by: *ACI Europe*

ACI EUROPE supports the introduction of the Global Reporting Format (GRF) as mandated by ICAO into European law. However, NPA 2018-14 envisages the adoption of the IRs by the European Commission and the ED Decision for CS, AMC and GM only in Q2/20120. In the best case this would mean that rules are published on 1st April 2020 (worst case 30th June 2020). Even in the best case scenario the proposed publication schedule would not allow sufficient time for implementing the rules, train all staff and implement and the necessary changes to systems before 5th



	<p>November 2020. The need for training and systems changes would not only affect airport operators but also ATC, airlines, pilots and others. ACI EUROPE suggest to either expedite the adoption of implementing rules by the EC and the ED Decision to before the winter operations begin in 2019 or the Agency should develop transition measures for runway condition assessment and reporting in collaboration with stakeholders in order to avoid traffic disruptions due to inadequate staff training or lack of system upgrades. The Agency should develop transition measures for RWY condition assessment and reporting in collaborations with stakeholders in order to avoid traffic disruptions due to inadequate staff training or lack of system upgrades.</p>
response	<p>Noted</p> <p>In regard to the timelines of RMT.0704, the timelines have been communicated through the published ToR.</p>
comment	<p>1733 comment by: UAF (Union des Aéroports Français)</p> <p>UAF support ACI E comment #701</p>
response	<p>Noted</p> <p>Please refer to the reply to comment No 701.</p>

2. In summary — why and what | 2.1. Why we need to change the rules — issue/r p. 5-19

comment	<p>1694 comment by: ENAC Italy</p> <p>The Graph1 should be removed, because it appears misleading, showing an increase of the level of reporting, rather than an increase in the level of incidents</p> <p>Justification</p> <p>Graph1 depicts a rather catastrophic situation, where this kind of events have increased by fivefold in ten years.</p> <p>However this graphic do not takes into consideration several factors:</p> <ol style="list-style-type: none"> 1. This kind of info should always be presented as a rate, i.e. confronted with movements, rather than absolute number; 2. The level of maturity of reporting has greatly increased in the last ten years. Therefore it should be assessed how many states were reporting those kind of events, and the related number of flights; 3. it is not clear if the runway incursions by persons includes those done intentionally by people trying to escape from security forces or illegally enter into the country.
response	<p>Noted</p> <p>The graph as stated in the relevant text presents absolute values and not rates, while the occurrences may be the result of various factors. Presentation of the geographic</p>



locations of the occurrences and reporting level are not considered necessary for the scope of this exercise.

comment 1914 comment by: IATA

IATA / Delta comment - General on Vehicles

Vehicles should never hold/loiter in an ILS critical area; these are transit-only areas, even during good weather conditions. ILS approaches are flown even when the weather does not require protecting the ILS critical areas (especially after flying 10 hours through the night!).

response Noted

This issue will be addressed in the context of RMT.0379 (all-weather operations).

comment 1916 comment by: IATA

IATA / Delta comment:

Page 8

On: “temporary reduced declared distances” in par:

“Ensure robust procedures are in place for calculating temporary reduced declared distances e.g.

- In the USA the ATCO will state “KLM 405 Heavy, cleared for takeoff Runway 13R shortened” to remind the flight that full length is not available. EASA should be encouraged to explore using this terminology.

response Noted

The comment includes a proposal for air-ground phraseology for communication, which is of rule-of-the-air nature and therefore is not addressed within the scope of this RMT, which approaches the issue of runway safety from an aerodrome operator’s perspective. EASA will carefully evaluate the comment under the activities of RMT.0476 ‘Maintenance of SERA rules’, also in consideration of the relevant ICAO provisions concerning air-ground phraseology.

comment 1917 comment by: IATA

IATA / Delta comment:

On par 3.7.1

A PIREP that is more recent than an aerodrome assessment will be given more priority, particularly when precipitation is falling because these conditions will result in changing braking action. For this reason, any RwyCC or other braking action report will need to have an associated time (and aircraft type) in order for it to be useful.



response	Noted Par. 3.7.1 comes from the European Action Plan for the Prevention of Runway Excursions; therefore, no change can be made by EASA into the content of the recommendation.
comment	1918 comment by: IATA IATA / Fedex comment: On establishment of standard taxi routes at the aerodrome...” and AMC1 ADR.OPS.B.030(b) Surface movement guidance and control system (RMT.0703) STANDARD TAXI ROUTES - This is mostly a very good idea with one exception. It should be discouraged making these <u>mandatory</u> for ATC clearances <u>when Low Visibility Procedures are not in effect</u> . ATC should be permitted to use them or to tactically adjust taxi routes as deemed appropriate by the ATCO for the particular situation. This flexibility is necessary for efficiency
response	Accepted The proposed AMC prescribes only the elements that the design/development of these routes should take into account. This AMC does not affect their actual use by the ATS personnel, as Air Traffic Services provision is governed by a different set of Regulations.

2. In summary — why and what | 2.2. What we want to achieve — object

p. 19-20

comment	1939 comment by: European Cockpit Association ECA suggests to add the following to the mentioned header:- ensure a standardized method of reporting the runway surface condition ... "and ensure that this information is made known in a regular and timely manner to personnel concerned with flight operations"
response	Accepted

2. In summary — why and what | 2.4. What are the expected benefits and drawbacks of the proposa

p. 29

comment	1888 comment by: ANAC We will wait for the divulgation of the EASA workshops on the new requirements explanation, in order to attend it.
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response Noted

3. Proposed amendments and rationale in detail | 3.1. Draft regulation (Draft EASA opinion) p. 30

comment 233 comment by: Gatwick Airport
No comment

response Noted

comment 234 comment by: Gatwick Airport
No Comment

response Noted

comment 1893 comment by: IATA
IATA strongly advocates a **globally harmonized and synchronized** introduction and usage of the **ICAO Global Reporting Format (GRF)** which ensures a harmonized assessment and report of runway surface conditions during all weather operations.

IATA also would like to stress that the introduction of the GRF requires a globally supported common training from Airport personnel, including ATC organizations and Airlines. This to ensure that pilots operating regionally and world wide will be confronted with reported Runway Condition Codes that have been assessed by knowledgeable and qualified airport personnel.

response Noted

comment 1927 comment by: IATA
IATA / United comments

IATA / United Airlines	Question raised on runway less than full width	What defines when a runway will be reported less than full width available (bank size)?
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response Noted



This refers to Item H in the SNOWTAM Form, where it is specified that it applies to the width of the runway to which the runway conditions codes apply, if less than the published width.

comment

1928

comment by: IATA

IATA / United concerns

United Airlines	Question raised on “special runway treatments”	When using special runway treatments what data and type of aircraft will be used to support the stopping performance calculations?
United Airlines	Question raised on “what triggers a re-assessment of RWYCC?”	When will pilot report trigger a re-assessment? Mandatory if the report is worse than the reported RwyCC?

response

Noted

Concerning the first question, information is included in ADR.OPS.B.036 points (b)(2) and (b)(3), as well as in AMC1 ADR.OPS.B.036(b)(2), GM1 ADR.OPS.B.036(b)(2), AMC1 ADR.OPS.B.036(b)(3) and GM1 ADR.OPS.B.036(b)(3).

In regard to the second question, please refer to AMC1 ADR.OPS.B.037(c).

Annex I (Definitions) to Regulation (EU) No 139/2014

p. 30-33

comment

12

comment by: *Aerodrome safety regulation departement*

New definition number (24a) was already assigned in NPA 2018-06(D) as ‘(24a) ‘low-visibility operations (LVOs)’

New definition number (34a) was already assigned in NPA 2018-06(D) as ‘(34a) ‘operation with operational credits’

(37a) : We suggest to use the same terminology than ICAO and thus replace ‘reliability of the lighting system’ by "Lighting system reliability".

The content of GM1 and GM2 (41a) Slippery wet runway should be transferred into the definition of slippery wet runway itself because those elements are essential to a full and correct understanding of the definition.



response	Accepted
	<p>The numbering of definitions was indicative, as this NPA had to take into account their existing numbering. The final numbering of the definitions takes into account the definitions and other changes contained in the NPA on AWO. The terminology of definition 37a was changed to match the ICAO definition.</p> <p>Concerning GM1 and GM2 to definition (41a) on slippery wet runway, they are based on Notes in Annex 14, which are not part of the Standard, therefore not appropriate to be placed in the Regulation.</p>
comment	235 comment by: <i>Gatwick Airport</i>
	No Comment
response	Noted
comment	337 comment by: <i>Avinor AS</i>
	<p>Definition (38f) ADD: Specially prepared winter runway (SPWR) (REF 41c) RATIONALE: The definition of “Specially prepared winter runway” should be included as is a descriptor used in the RCAM and ADR.OPS.A.065</p>
response	Not accepted
	The definition is aligned with the definition in Opinion No 02/2019.
comment	386 comment by: <i>Federal Office of Civil Aviation (FOCA), Switzerland</i>
	<p><i>Comment FOCA on definition (24a):</i> Location indicator is primarily a four-letter code designating aerodromes. To avoid confusion between location indicator (4-letter code) and Location Indicators (Doc 7910), we suggest to remove this definition and to refer directly to ICAO Doc 7910 when needed.</p> <p>Proposed new text: 24a) ‘Location Indicators’ means the latest effective edition of the ‘Location Indicators’ (Doc 7910/169), approved and published by the International Civil Aviation Organization;</p>
response	Partially accepted
	<p>Regulation (EU) No 139/2014 already contains the term ‘ICAO location indicator’ signifying the 4-letter code of an individual aerodrome. The direct reference to an ICAO document using its number only in a legal text is not a normal practice, while a definition of the document would still be needed for reasons of legal certainty. For this reason, the text of the relevant provision has been revised.</p>

comment	<p>395 comment by: <i>Federal Ministry of Transport Germany, Aerodrome Department</i></p> <p><i>“(24e) ‘Location Indicators’ [...]”</i></p> <p>Im Text wird auf ICAO Doc 7910/169 verwiesen. Da der zweite Teil der Bezeichnung (169) sich allem Anschein nach bei Aktualisierungen ändert (aktuell bereits 170), ist es unserer Meinung nach ausreichend, lediglich auf Doc 7910 zu verweisen.</p> <p><i>“(41b) ‘SNOWTAM’ [...]”</i></p> <p>Die Definition sollte sich mit der des Annex‘ 15 decken und auch “standing water” beinhalten („standing water or water associated with snow“)</p> <p>(41c) 'specially prepared winter Runway'</p> <p>Der Betrieb auf 'pecially prepared winter Runways' wurde von Seiten der ICAO derzeit noch nicht in die SARPs aufgenommen. Inhaltlich unterstützt Deutschland grundsätzlich die vorgeschlagenen Regeln. Aus hiesiger Sicht sollte der Regelungsinitiative eine umfassende Risikobewertung und Abwägung der Auswirkungen auf die Regelmäßigkeit des internationalen Luftverkehrs vorausgehen.</p> <p><i>“(47) ‘terms of the certificate’ [...]”</i></p> <p>Die Aufnahme von „aeroplane operations on specially prepared winter runway(s)“ sollte aus diversen Gründen nicht erfolgen (siehe Anmerkungen zu ADR.OPS.B.036).</p>
response	<p>Partially accepted</p> <p>The definition of Location Indicator has been amended. The definition of SNOWTAM is in line with the relevant definition of SNOWTAM contained in PANS-AIM (ICAO Doc 10066) and Annex 15 which will be applicable as of November 2020. Finally, it is also in line with the proposed definition of SNOWTAM contained in Opinion No 03/2018, which deals with the AIS regulatory framework.</p> <p>The definition of ‘specially prepared winter runway’ is not an ICAO definition but is already contained in CS-25 and aligns with Opinion No 02/2019.</p>
comment	<p>524 comment by: <i>EUROCONTROL</i></p> <p>Annex I (Definitions) to Regulation (EU) No 139/2014</p> <p><i>Regarding the inclusion of definition “(17a) ‘data set’ means an identifiable collection of data.” it is not clear the purpose for inclusion of this definition in NPA, if nowhere in the text of the NPA ‘data set’ is mentioned. The Aerodrome Mapping Data Set, as per ICAO Annex 15, could have been an interesting solution for some of the identified issues.</i></p>

response	<p>Noted</p> <p>The definition is indeed not used in the actual text of the proposed Regulation; however, it has been considered appropriate to include it and maintain it, as it is a term which is already contained in another definition. A separate RMT related to aerodrome data has been included in EPAS.</p>
comment	<p>596 comment by: CAA Norway</p> <p>General Definitions need to be coordinated with the outcome of RMT.0397 (AWO) Note that there might be follow-on changes to GM1 ADR.AR.C.035(e) and CS-ADR-DSN</p>
response	<p>Accepted</p> <p>The numbering of definitions was indicative, as this NPA had to take into account their existing numbering. The final numbering of the definitions takes into account the definitions contained in the NPA of AWO, as well as other changes.</p>
comment	<p>597 comment by: CAA Norway</p> <p>(38f) ‘runway surface condition descriptors’ – COMMENT: ADD Specially prepared winter runway (SPWR) (REF 41c) RATIONALE: Specially prepared winter runway is a descriptor used in the RCAM and ADR.OPS.A.065. As such, it need to be incorporated in the list. Even if it has its own definition in 41(c), so has several of the other runway surface condition descriptors. (38f) lists the legal runway surface condition descriptors, and consequently, it needs to be complete.</p>
response	<p>Not accepted</p> <p>The definition is aligned with the definition in Opinion No 02/2019.</p>
comment	<p>598 comment by: CAA Norway</p> <p>(41c) Specially Prepared winter runway QUESTION: Would it be practical to introduce the acronym SPWR?</p> <p>Rationale: Whereas acronyms are generally avoided in the RCR and SNOWTAM, the information string will be very long if the full text shall be repeated three times pr runway.</p> <p>May have consequences for Opinion 2/2019.</p>
response	<p>Not accepted</p> <p>Although the information string will be very long, the information is clearer to the flight crews if the full term is used instead of an abbreviation.</p>

comment	599 (47) Terms of the Certificate COMMENT: Must be coordinated with the outcome of NPA 2018-6 (D) and possibly the result of other changes to GM1 ADR.AR.C.035(e) RATIONALE: Several changes to GM1 ADR.AR.C.035(e) are proposed in NPA 2018 – 6 (D) and in this NPA	comment by: CAA Norway
response	Accepted The numbering of definitions, as well as of other proposed changes like this, was indicative, as this NPA had to take into account their existing numbering. The final numbering of the definitions as well of all other affected text takes into account the definitions contained in the NPA on AWO, as well as other changes.	
comment	705 (37a) The word “reliability” is not necessary the same as “operationally usable”. Ref. comment no. 44 to ADR.OPS.C.015 (b). RATIONALE: By revising the provision ADR.OPS.C.015 (b) the definition of this term can be avoided, as it is unclear. (38b) Suggestion is to use the words ‘single digit’ instead of ‘number’, hence only the codes 0 to 6 are used. In point (b)(4) of GM2 ADR.OPS.A.065(a) the term ‘one-digit number’ is used. It is suggested to align the definition for RWYCC with the associated GM. (41a) The definition for ‘slippery wet runway’ only mentions a situation where slipperiness has been ‘determined’; it should also include the situation where it is <u>suspected</u> that the runway is slippery.	comment by: ACI Europe
response	Not accepted With regard to the comment on definition (37a), please note that this is the universally agreed definition, contained in Annex 14. For definition (38b), EASA does not see a point in differentiating from the ICAO definition. In regard to the definition (41a), the runway is declared slippery wet following assessment; therefore, the term ‘suspected’ is not appropriate.	
comment	731 Suggest to introduce the acronym SPWR	comment by: SAS
response	Not accepted	

Although the information string will be very long, the information is clearer to the flight crews if the full term is used instead of an abbreviation.

comment 796 comment by: *ENAIRE*

- Definitions 38c. Development of phraseology on ATC to provide pilots the runway condition reports is required.

response Accepted
Please refer to the relevant AMC for SERA (AMC1 SERA.14001).

comment 797 comment by: *ENAIRE*

- Definitions 38d. Procedures need to be adapted on ATM to ensure that runway strips are protected, in particular SMGCS systems supported by SMR/MLAT systems to ensure that mobiles can be surveyed on maps and these maps include the RWY strips.

response Noted
The definition of runway strip has been included in Annex 14 for many years, and was already transposed at EU level through the adoption of the aerodrome design certification specifications in 2014. EASA will carefully evaluate it under the ongoing activities of RMT.0464 'Requirements for ATS', for a possible inclusion in the ED Decision.

comment 825 comment by: *Aleksandar Ilkovski*

The definition of a contaminated runway is clear. However, the definition does not describe the use of high-speed-exits from runways. Incidents have occurred due to poor friction on high-speed-exits as they are believed to be part of the runway high-speed-area.

A definition or description of high-speed-exits, and the reporting procedure in the RCR would be preferable in association with the definition of "contaminated runway" and RCR.

response Noted
The information on rapid exit taxiways should be included in the situational awareness section.

comment 954 comment by: *Swedish Transport Agency*

Definitions need to be coordinated with the outcome of RMT.0397 (AWO).



response	Accepted
	The numbering of definitions, as well as of other proposed changes like this, in this NPA had to take into account their existing numbering. The final numbering of the definitions as well of all other affected text takes into account the definitions contained in the NPA on AWO, as well as other changes.
comment	974 comment by: <i>Danish Transport, Construction and Housing Authority</i>
	Support CAA Norway
response	Noted
	EASA would like to thank you for your support regarding the proposed changes.
comment	975 comment by: <i>Swedish Transport Agency</i>
	(38f) ‘runway surface condition descriptors’ – COMMENT: ADD Specially prepared winter runway (SPWR) (REF 41c) RATIONALE: RATIONALE: Specially prepared winter runway is a descriptor used in the RCAM and ADR.OPS.A.065. As such, it need to be incorporated in the list. Even if it has its own definition in 41(c), so has several of the other runway surface condition descriptors. (38f) lists the legal runway surface condition descriptors, and consequently, it needs to be complete.
response	Not accepted
	The definition is aligned with the definition in Opinion No 02/2019.
comment	976 comment by: <i>Swedish Transport Agency</i>
	(41c) Specially Prepared winter runway COMMENT: It would be practical to introduce the acronym SPWR. RATIONALE: RATIONALE: Whereas acronyms are generally avoided in the RCR and SNOWTAM, the information string will be very long if the full text shall be repeated three times pr runway. May have consequences for Opinion 2/2019.
response	Not accepted
	Although the information string will be very long, the information is clearer to the flight crews if the full term is used instead of an abbreviation.
comment	1009 comment by: <i>Flughafen Berlin Brandenburg GmbH</i>
	The definition of a runway strip is already included within “CS ADR-DSN.A.002 Definitions”. Furthermore, this NPA proposes additional definitions that will be included either in Annex I of Regulation No 139/2014 or in CS ADR-DSN.A.002 Definitions. From our perspective it might be beneficial to have a single section with definitions instead of two sections.

response	Noted EASA is aware of this duplication of definitions in the various texts and it is quite important that all definitions used in various texts are kept up to date. However, from a legal point of view, the Regulation needs to contain the definitions of the terms which are used in its text.
comment	1046 comment by: <i>Assaeroporti - Associazione Italiana Gestori Aeroporti</i> NPA Content: (15a) 'contaminated runway' means a runway of which a significant portion of the runway surface area (whether in isolated areas or not) within the length and width being used is covered by one or more of the substances listed under the runway surface condition descriptors; Comment: the terminology "Significant portion" is too general, it's might be specified better.
response	Noted The definition of the 'contaminated runway' is in accordance with ICAO Annex 14. The method for the assessment of runway surface condition and assignment of runway condition code is described in ADR.OPS.B.037 and the related AMC.
comment	1047 comment by: <i>Assaeroporti - Associazione Italiana Gestori Aeroporti</i> NPA Content: (38a) 'runway condition assessment matrix (RCAM)' means a matrix allowing the assessment of the runway condition code (RWYCC), using associated procedures, from a set of observed runway surface conditions and pilot report of braking action; Comment: The "pilot report of braking action" should be made mandatory to produce the RCAM and establish the RWYCC. It is necessary to integrate the text by giving pilots the obligation to report to the ATS authority on the braking action whenever they land on airport runway. It is also important that the ATS authority transmits the braking action to the aerodrome operator in a short time.
response	Noted This is already covered in CAT.OP.MPA.311 in Opinion No 02/2019.
comment	1463 comment by: <i>Atle Vivas</i> (38f) 'runway surface condition descriptors' – COMMENT: ADD Specially prepared winter runway (SPWR) (REF 41c) RATIONALE: Specially prepared winter runway is a descriptor used in the RCAM and ADR.OPS.A.065. As such, it need to be incorporated in the list. Even if it has its own definition in 41(c), so has several of the other runway surface condition



response	<p>descriptors. (38f) lists the legal runway surface condition descriptors, and consequently, it needs to be complete.</p> <p>Not accepted</p> <p>The definition is aligned with the definition in Opinion No 02/2019.</p>
comment	<p>1472 comment by: <i>Atle Vivas</i></p> <p>(41c) Specially Prepared winter runway QUESTION: Would it be practical to introduce the acronym SPWR? RATIONALE: Whereas acronyms are generally avoided in the RCR and SNOWTAM, the information string will be very long if the full text shall be repeated three times pr runway. May have consequences for Opinion 2/2019.</p> <p>(47) Terms of the Certificate COMMENT: Must be coordinated with the outcome of NPA 2018-6 (D) and possibly the result of other changes to GM1 ADR.AR.C.035(e) RATIONALE: Several changes to GM1 ADR.AR.C.035(e) are proposed in NPA 2018 – 6 (D) and in this NPA</p>
response	<p>Partially accepted</p> <p>In regard to the introduction of the acronym ‘SPWR’, EASA considers that the information is clearer to the flight crews if the full term is used instead of the proposed abbreviation.</p> <p>Concerning the comment for the definition of terms of the certificate, this should be taken into account.</p>
comment	<p>1690 comment by: <i>Copenhagen Airports A/S</i></p> <p>Subject: New definition Proposal: The term 'patchy' Justification: Apply the term to taxiway(s) and aprons condition. <u>Not</u> to describe runway contaminants. Can be used for taxiways or aprons with 25 percent or less coverage of a particular contaminant, and where the depth is not reported. Copenhagen Airports uses the term under item t) for situation awareness.</p>
response	<p>Not accepted</p> <p>The term ‘patchy’ is not an ICAO defined term. Taxiways and aprons are part of the situational awareness section, which is a free text.</p>
comment	<p>1735 comment by: <i>UAF (Union des Aéroports Français)</i></p> <p>UAF support ACI E comment#705</p>



response Noted
Please refer to the reply to comment No 705.

comment 1926 comment by: IATA

IATA / United Airlines concerns	Question raised on SNOWTAM (general)	Will the SNOWTAM be used to report frozen contaminates in a standardized format to ensure that airline flight planning and communication systems can display the data?
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response Noted
The SNOWTAM will be used to disseminate the runway condition reports (RCRs) in a structured and standardised manner.

comment 1940 comment by: European Cockpit Association

(15a) ECA's comment: the definition of 'contaminated runways' should be congruent with ICAO definition.

(41c) ECA's comment: Definition to be used in local procedures. Rationale see page 57.

(47) — aeroplane operations on specially prepared winter runway(s),
ECA's comment: What does this mean in practice? Does an operator need a certificate to operate there? What changes does this bring to flight operations?

'wet runway' means a runway whose surface is covered by any visible dampness or water up to and including 3 mm deep within the area intended to be used.
ECA's comment: a damp runway is now considered wet. Need to ensure this is part of the training syllabus for personnel concerned with flight operations.

response Noted

Definition 15a is the same as in ICAO.

For definition 41c, please refer to the response to comment #1938.

Definition (47) applies to the aerodrome operator.

In regard to the difference between the wet and the damp runway, the comment is noted.



Annex IV (Part-ADR.OPS) to Regulation (EU) No 139/2014

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comment	236	comment by: <i>Gatwick Airport</i>
	No Comment	
response	Noted	
comment	732	comment by: <i>SAS</i>
	Supported	
response	Noted	
	EASA would like to thank you for your support regarding the proposed changes.	

ADR.OPS.A.057 Origination of NOTAM

p. 33-37

comment	14	comment by: <i>Aerodrome safety regulation departement</i>
	<p>(((a)(2)) this new provision deals with the training of the personnel generating NOTAM and could thus be made redundant with provisions expressed in OR or AMC.1 OR.D.007 as well as D.017. For better readability, there is a need to reorganize implementing rules regarding aeronautical information training requirements as a whole.</p> <p>(b)(2) and (c)(3) An aerodrome operator has neither competency nor responsibility with regards to communication and navigation services. CNS providers represent official entities responsible for communication, navigation and surveillance services, specifically regulated following regulation (EU) 373/2017. The origination of NOTAMs relating to radionavigation aids is the responsibility of the navigation service provider operating the aid and it is the same with the communication facilities.</p> <p>Moreover, opinion 2018-02 provides a new requirement on any ATM/ANS provider :</p> <p>"(a) A service provider shall ensure that aeronautical data related to its services is provided in due time to the AIS provider."</p> <p>We thus suggest to modify points b)2) and c) 3) to limit the responsibility to a coordination of the aerodrome operator with the responsible operator or to displace these two points towards ATM/ANS.</p> <p>(c)(7) The aerodrome operator can only provide NOTAM for the procedures he is responsible for, which de facto excludes at least SID, STARs and ATS routes (all of those are established for ATS purpose and are the responsibility of the ATS provider). On AFIS aerodromes, or on aerodromes without ATS, the aerodrome operator may be responsible for the establishment of procedures such as instrument approaches but regarding ATM/FPD requirements. In that case only can the AD operator be responsible to originate a NOTAM regarding NA procedures.</p> <p>Rewording proposal :</p>	



" (7) establishment of, withdrawal of, or significant changes to procedures for air navigation services the aerodrome operator is responsible for; "

(c)(11)(12) Both ATS providers or in some very specific cases the civil aviation territorially competent authority could originate NOTAM for those types of events outside the aerodrome boundary. Some flexibility could be adjusted to allow coordinations with those entities when they provide the origination of NOTAM.

(d)(3) For consistency with opinion 2018-02, it is necessary to add the following possibility :

"If necessary for domestic users, NOTAM may additionally be issued in national language."

(d)(6) (7) These provisions are part of the responsibility of the AIS provider. We suggest to remove them from the NPA.

(g) Initially, these provisions were part of the GM OR.D.017. Moreover equivalent requirements for RFFS are dealt with at an AMC level. We see no reason to be more restrictive on NOTAM training than on any other matter. Intervals between proficiency checks and recurrent training should be defined at an AMC level to give more flexibility in the aerodrome operator organization.

Appendix 2 : The template of SNOWTAM presented in Appendix 2 has not been coordinated with RMT 704. Indeed, it doesn't consider the differences with ICAO provisions on descriptors and report of friction measures: SLIPPERY WET DESCRIPTOR and SPECIALLY PREPARED WINTER RUNWAY have been forgotten (Item G). In addition, Item S still allows publication of friction measures despite the prohibition carried by ADR.OPS.A.065 (d). Moreover, consistency with ATM/AIS provisions should be checked about the frame of the SNOWTAM on both these items.

To the question raised in the rationale, we agree with the proposition to amend OR.D.017 to include all general training provisions and describe detailed requirements in specific IR. Moreover, it would be consistent with ICAO current updating process of PANS-ADR.

response

Partially accepted

Point (b)(2) focuses on the provision of the estimated unserviceability period, while it covers all types of navigation aids. Therefore, it should be read in conjunction with point (c) which defines the cases for which an aerodrome operator needs to originate a NOTAM.

Points (c)((3), (c)(7) and (d)(3) have been amended in the suggested direction.

With regard to the comments regarding points (c)(11) and (c)(12), please note that relevant aerodrome essential requirements are contained in Annex VII and that Article 38 of Regulation (EU) 2018/1139 delineates the responsibilities of the various actors with respect to the surroundings of the aerodrome. Therefore, we consider



that the responsibility for origination of such NOTAMs may not be with the relevant ANSP. Competent authorities can always request the aerodrome operator to originate a NOTAM or originate one themselves. In addition, the relevant AMC foresees that the cases where consultation/coordination with the competent authority is needed should be specified in the relevant procedures established by the aerodrome operator.

With regard to the comment on point (d)(6), please note that it is the NOTAM originator’s responsibility to provide the information (series and number that had been previously attributed by the AIS provider) of the NOTAM that needs to be cancelled or replaced, so that the AIS provider is enabled to issue a NOTAM that cancels or replaces the correct NOTAM. However, the term ‘series’ in (d)(6)(ii) has been removed from the text. With regard to the comment on point (d)(7), please note that its intent is to ensure that the aerodrome operator will not originate more than one NOTAMs in order to request the cancelation or replacement of a single NOTAM, since only one NOTAM may be issued by the AIS provider cancelling or replacing one NOTAM.

With regard to the Appendix to the SNOWTAM, its content has been amended. A consistency check with the relevant provisions contained in Opinion No 02/2018 has also been performed.

EASA would like to thank you for sharing your view with regard to the proposed structure of the rules on training. The relevant provisions have been amended to avoid repetitions and overlaps; however, EASA considers that the training intervals need to be specified at rule level, given also the content of the supportive material (AMC/GM).

comment	215	comment by: <i>GdF</i>
	<p>It should be made clear, that a NOTAM has to be originated on short notice only for unforeseeable unserviceability – not e.g. planned constructions.</p> <p>(1) NOTAM is originated with sufficient lead time for the affected parties to take any required action, except in the case of unforeseeable unserviceability, release of radioactive material, toxic chemicals and other events that cannot be foreseen;</p>	
response	<p>Not accepted</p> <p>Cases of unserviceability are already classified as ‘events that cannot be foreseen’ in the proposed text.</p>	
comment	237	comment by: <i>Gatwick Airport</i>
	<p>No Comment</p>	
response	<p>Noted</p>	



comment	<p>308 comment by: <i>European Powered Flying Union</i></p> <p>ADR.OPS.A.057 Origination of NOTAM p 35/207 (d)(3)</p> <p>"a NOTAM is originated in the English language" we read.</p> <p>Question: in all cases? Please clarify.</p>
response	<p>Accepted</p> <p>Point (d)(3) has been amended to accommodate also the use of other languages in NOTAM origination.</p>
comment	<p>314 comment by: <i>AEROPORTI DI ROMA</i></p> <p>Referring to point (12) "erecting or removal of, changes to, obstacles..." A clarification is needed to determine if the mentioned obstacles are fixed obstacles (like trees, buildings), or removable (like cranes).</p>
response	<p>Noted</p> <p>The term 'obstacle' covers, by definition, both fixed and mobile obstacles. Please refer to Article 2 of Regulation (EU) No 139/2014.</p>
comment	<p>318 comment by: <i>John Hamshare (Heathrow)</i></p> <p>Question re ADR.OR.D.017 – no it does not need amending – it already makes a broad requirement and there is no benefit of specifying particular points of detail – a high level "catch all" is better than trying to identify every individual item, which brings with it a risk of missing something.</p>
response	<p>Noted</p> <p>EASA would like to thank you for sharing your view with regard to the proposed structure of the rules.</p>
comment	<p>396 comment by: <i>Federal Ministry of Transport Germany, Aerodrome Department</i></p> <p>Die Regelungen aus Unterpunkt (f) bezüglich des zu schulenden Personals und die damit zu erfüllenden Anforderungen aus den Unterpunkt (g) und (h) erfordern die Einrichtung eines umfangreichen Schulungs-/ Qualifikationserhaltungsprogramms, welches für die Erstellung von NOTAMs absolut unangemessen ist. Dies betrifft insbesondere die Regelungen des Buchst. g) zu den alle 2 Jahre durchzuführenden Befähigungsüberprüfungen und die</p>

Auffrischungsschulungen nach einer 3-monatigen Abwesenheit. Diese Schulungsanforderungen sind nicht nur für die Tätigkeit der Erstellung von NOTAMs unverhältnismäßig, sondern auch im Vergleich zu den Schulungsanforderungen an andere Personalgruppen (z.B. RFFS) nicht nachvollziehbar. Für kleinere Flughäfen ist die Umsetzung aufgrund des betroffenen Personalkreises und der damit verbundenen Komplexität kaum darstellbar.

Unterpunkt f) – Nicht nur Mitarbeiter des Flugplatzbetreibers, die NOTAM initiieren, müssen gesondert geschult werden, sondern auch diejenigen, welche NOTAM nutzen. Uns ist unklar, welcher Personenkreis damit gemeint sein soll. NOTAM sind ausdrücklich zur Information von Luftfahrzeugführern gedacht. Eine Rückfrage bei Flugplätzen in unserem Zuständigkeitsbereich ergab, dass es am Flugplatz selbst keine Nutzer von NOTAM gibt. Wir bitten daher um Klarstellung und nochmalige Überprüfung der Sinnhaftigkeit dahingehend.

Es ist auch fraglich ob und ggf. welche Gefährdung von diesem Nutzerkreis ausgehen kann (z.B. bei keiner oder mangelnder Ausbildung) und ob dies den immens hohen Schulungsbedarf wirklich rechtfertigt.

Unterpunkt g) (Training) sind Befähigungsüberprüfungen gefordert, für die Personen, die NOTAM initiieren in einem Turnus von 24 Monaten. Siehe hierzu allgemeine Hinweise bzgl. Befähigungsüberprüfungen. Zudem wird gefordert, dass Mitarbeiter, die mehr als 3 Monate nicht gearbeitet haben, ein sogenanntes Refresher Training absolvieren müssen. Dies bedeutet einen immens hohen Arbeits- und Ressourcenaufwand auf Seiten der Flugplätze bei einem unseres Erachtens fraglichen Ergebnis. Zum Teil müssten z.B. Flugplatzmitarbeiter bereits nach einem längeren Urlaub wieder geschult werden (obwohl diese ggf. frequent NOTAM initiieren), wogegen es sicherlich kleinere Flugplätze gibt, die innerhalb von 3 Monaten (oder mehr) nicht ein einziges NOTAM aufgeben. Wir stellen die Sinnhaftigkeit sowie den Nutzen für die Sicherheit dieser Vorgabe in Frage und bitten um eine Streichung oder Erhöhung der geforderten Fristen. Je komplexer ein System ist, desto anfälliger ist es für Fehler. Kräfte die für Refresher Trainings gebunden werden, fehlen unter Umständen bei der Durchführung wirklich sicherheitsrelevanter Tätigkeiten. Gerade in Bezug auf die Veröffentlichung von NOTAM sollte dies im Rahmen der Gesetzgebung zwingend vermieden werden.

"Do you consider that ADR.OR.D.017 needs to be amended to incorporate all general training provisions, in order to avoid repetition of requirements and ensure legal certainty?"

Eine Zusammenführung der Vorgaben hinsichtlich der Schulung hätte zwar den Vorteil, dass eine Bündelung stattfindet, birgt jedoch den Nachteil, dass man sich, wenn man z.B. die relevanten Vorgaben für RFFS sucht, erst durch eine Reihe von nicht zutreffenden Punkten arbeiten muss. Die zusammengefassten Punkte dürften auch sehr umfangreich und wenig übersichtlich werden. EASA sollte daher grundsätzlich prüfen, ob



response	<p>wirklich die Notwendigkeit besteht, für jede Aufgabe und jeden Teilbereich andere Schulungsvorgaben und Fristen festzulegen. Denn je komplexer ein System ist und je unübersichtlicher, desto größer ist die Gefahr, dass bei der Ausführung / Umsetzung sicherheitskritische Fehler entstehen. Hinsichtlich der Anmerkungen zu Befähigungsüberprüfung und der Festlegung von Schulungsintervallen siehe oben.</p> <p>Partially accepted</p> <p>With regard to point (f), please note that there is a need for personnel who need to originate or understand the content of a NOTAM to be in a position to do so. Therefore, there is a training need, while the areas of the training are defined in the relevant AMC. A new AMC has been provided for other personnel whose tasks involve the understanding of the content of a NOTAM regarding the refresher training. The recurrent training period has been amended and relevant parts have been incorporated in ADR.OR.D.017. EASA would like to thank you for sharing your view with regard to the proposed structure of the rules.</p>
comment	<p>489 comment by: UK CAA</p> <p>Page No: 33/34</p> <p>Paragraph No: ADR.OPS.A.057 (b)</p> <p>Comment: Sub sections (b) (1) to (5) are considered too detailed for IR level</p> <p>Justification: There has always been an overriding principle in the Aerodrome regulations that the IR would be a high level requirement and any specific detail would be AMC or GM.</p>
response	<p>Noted</p> <p>The particular provisions contain specific actions, which are to be performed by the aerodrome operator, within a predetermined period of time, in order to prevent potential impact on the air navigation system.</p> <p>Thus, there is no possibility for an alternative action to be taken by an aerodrome operator in relation to the content of these provisions, a fact that is reflected in the chosen rule structure, in order to ensure clarity and legal certainty.</p> <p>Please also note that similar provisions are contained in EASA Opinion No 02/2018, which addresses the responsibilities of the AIS providers with regard to the issuance of NOTAMs.</p>
comment	<p>491 comment by: UK CAA</p> <p>Page No: 34/35</p>

response	<p>Paragraph No: ADR.OPS.A.057 (c)</p> <p>Comment: Sub sections (c) (1) to (16) are considered too detailed for IR level</p> <p>Justification: There has always been an overriding principle in the Aerodrome regulations that the IR would be a high level requirement and any specific detail would be AMC or GM.</p> <p>Noted</p> <p>The particular provisions, which transpose Annex 15 standards, specify the cases where a NOTAM must be originated by the aerodrome operator. Thus, there is no possibility for an alternative action to be taken by an aerodrome operator in relation to the content of these provisions, a fact that is reflected in the chosen rule structure, in order to ensure clarity and legal certainty.</p> <p>Please also note that similar provisions are contained in EASA Opinion No 02/2018, which addresses the responsibilities of the AIS providers with regard to the issuance of NOTAMs.</p>
comment	<p>492 comment by: UK CAA</p> <p>Page No: 35</p> <p>Paragraph No: ADR.OPS.A.057 (d)</p> <p>Comment: Sub sections (d) (1) to (11) are considered too detailed for IR level</p> <p>Justification: There has always been an overriding principle in the Aerodrome regulations that the IR would be a high level requirement and any specific detail would be AMC or GM.</p>
response	<p>Noted</p> <p>The particular provisions, which are based on the content of Annex 15 standards, contain specific actions which are to be performed by the aerodrome operator, in order to prevent potential impact on the air navigation system. Thus, there is no possibility for an alternative action to be taken by an aerodrome operator in relation to the content of these provisions, a fact that is reflected in the chosen rule structure, in order to ensure clarity and legal certainty.</p> <p>Please also note that similar provisions are contained in EASA Opinion No 02/2018, which addresses the responsibilities of the AIS providers with regard to the issuance of NOTAMs.</p>
comment	<p>526 comment by: EUROCONTROL</p>



**Annex IV (Part-ADR.OPS) to Regulation (EU) No 139/2014
ADR.OPS.A.057 Origination of NOTAM (RMT.0703)**

With regard to the text below:

(b) The aerodrome operator shall ensure that:

...

(3) within three months from the issuance of a permanent NOTAM, the information contained in the NOTAM is included in the aeronautical information products affected;

(4) within three months from the issuance of a temporary NOTAM of long duration, the information contained in the NOTAM is included in an AIP supplement; and

(5) when a NOTAM with an estimated end of validity unexpectedly exceeds the three-month period, a replacement NOTAM is originated unless the condition is expected to last for a further period of more than three months; in that case, the aerodrome operator shall ensure that the information is published in an AIP supplement.

the aerodrome operator cannot ensure these tasks alone, as they belong to the AISP. The text should be adjusted to reflect the need to request/verify with the AISP that the above tasks were performed.

response

Noted

The intent of the proposed provisions is that the aerodrome operator takes the necessary actions for ensuring the correct publication of the information, irrespective of the responsibilities of the AIS provider. The verb 'ensure' is used to convey this intent.

comment

527

comment by: EUROCONTROL

**Annex IV (Part-ADR.OPS) to Regulation (EU) No 139/2014
ADR.OPS.A.057 Origination of NOTAM (RMT.0703)**

With regard to the text below:

(c) The aerodrome operator shall originate a NOTAM when it is necessary to provide the following information:

...

(2) establishment of, withdrawal of, and significant changes in the operation of the aerodrome services;

...

It is understood that the text was rewritten for aerodrome operators, however looking at the original ICAO text for (2) " ..., and significant changes in operation of aeronautical services (aerodromes, AIS, ATS, communications, navigation and surveillance (CNS), meteorology (MET), search and rescue (SAR), etc.);" a question is asked whether the aerodrome services and aeronautical services (aerodromes...) mean the same services. In our understanding, ICAO text 'aeronautical services (aerodromes...)' means ARO (ATS Reporting Office) eg. combined AIS/ARO offices, whereas aerodrome services could mean a multitude of other existing aerodrome services (e.g. wild life control etc.). This potential ambiguity could lead to an increase of NOTAM proliferation.

response

Noted



The text refers to the aerodrome services. Given that Annex 15 foresees when a NOTAM is not meant to be issued, and given also that these provisions are already included in EASA Opinion No 02/2018 which addresses the case of AIS providers, we do not share the view that this may lead to a NOTAM proliferation.

comment

555

comment by: *Finavia Oyj*

The current and very detailed regulation should be changed to read as follows:

The aerodrome operator shall:

- (1) agree upon necessary arrangements with appropriate ANS/AIS provider
- (2) transfer raw information to AIS (clearly and unambiguously) whenever necessary
- (3) train the appropriate aerodrome operator's personnel
- (4) maintain training records.

Rationale:

The implementing rules shall be kept at a very high and generic level and more accurate instructions should be published on AMC or (preferably) GM level instead. This gives enough room for necessary national arrangements between aerodrome operator and ANS/AIS provider.

response

Not accepted

The particular provisions, which are based on the content of Annex 15 standards, specify the cases where a NOTAM must be originated by the aerodrome operator and contain actions to be performed by the aerodrome operator in order to prevent potential impact on the air navigation system. Thus, there is no possibility for an alternative action to be taken by an aerodrome operator in relation to the content of these provisions, a fact that is reflected in the chosen rule structure, in order to ensure clarity and legal certainty.

Please also note that similar provisions are contained in EASA Opinion No 02/2018, which addresses the responsibilities of the AIS providers with regard to the issuance of NOTAMs.

comment

556

comment by: *Finavia Oyj*

(b), (c) Instead of detailed listing the reference should be made to Annex 15. If this can not be avoided, the list shall be corrected because some of the information listed are not under the responsibility of aerodrome operator (i.e. (b) (2), (c) (3, 7, partly 12)).

response

Partially accepted

A reference to Annex 15 is not an acceptable solution. Please note that similar provisions are also contained in EASA Opinion No 02/2018, which addresses the responsibilities of the AIS providers with regard to the issuance of NOTAMs.

The text of (c)(3) and (c)(7) has been amended to cover additional cases.



comment	<p>557</p> <p>comment by: <i>Finavia Oyj</i></p> <p>(d)(1) Appendix 1 (p. 40) It should be clarified, which fields of NOTAM Format shall be filled in by aerodrome operator.</p> <p><u>Rationale:</u> NOTAM Format shown in Appendix 1 contains many fields (priority, address, date and time of filing, operator’s indicator, message series and numbers, qualifiers (raw Q)) which are under the control of appropriate AIS service provider, not an aerodrome operator.</p>
response	<p>Noted</p>
comment	<p>558</p> <p>comment by: <i>Finavia Oyj</i></p> <p>(d) (3) The requirement that a NOTAM shall be originated in the English language is disproportionate and unnecessary.</p> <p><u>Rationale:</u> There are no such a requirement in our organisation that the personnel in question can express themselves in English language. On the other hand, in national level all NOTAMs are published first in Finnish language before they are converted into English versions (by NOF). If this kind of requirement has to be included in regulation, it shall be included in GM.</p>
response	<p>Accepted</p> <p>Point (d)(3) has been amended to accommodate also the use of other languages in NOTAM origination.</p>
comment	<p>559</p> <p>comment by: <i>Finavia Oyj</i></p> <p>(e) The requirement to disseminate the NOTAM to the aerodrome user community is strange and should be withdrawn.</p> <p><u>Rationale:</u> NOTAM itself is a coded format message meant for the systems only, not for the users. It is the plain language format which needs to be disseminated to the users.</p>
response	<p>Not accepted</p> <p>The proposed provision does not require the dissemination of the NOTAM to the aerodrome community, but simply the dissemination of the information it contains, to ensure that they are aware of it, as it may affect safety.</p>

comment	<p>564 comment by: <i>ADV - German Airports Association</i></p> <p>(b) (2)</p> <p>Revise Text:</p> <p>a NOTAM notifying unserviceability of aids to air navigation, facilities or communication services operated by the aerodrome operator provides an estimate of the unserviceability period or of the time at which restoration of service is expected;</p> <p><i>Rationale: At least some of those aids and facilities are not operated and owned and maintained by the aerodrome operator.</i></p>
response	<p>Not accepted</p> <p>It is point (c) that defines when an aerodrome operator shall originate a NOTAM. Point (b)(2) is only about ensuring that an estimate of the unserviceability period or of the time at which restoration of service is expected.</p>
comment	<p>565 comment by: <i>ADV - German Airports Association</i></p> <p>(e)</p> <p>Revise Text:</p> <p>The aerodrome operator shall, following the publication of a NOTAM that it has originated, review its content to ensure its accuracy, and ensure the dissemination of the information to all relevant aerodrome personnel and organisations at the aerodrome.</p> <p>Rationale:</p> <p><i>It is an essential task for AIS to disseminate NOTAMs. All parties in aviation should be aware and should use that as the common source of information.</i></p>
response	<p>Not accepted</p> <p>The proposed provision does not require the dissemination of the NOTAM to the aerodrome community, but simply the dissemination of the information it contains, to ensure that they are aware of it, as it may affect safety.</p>
comment	<p>566 comment by: <i>ADV - German Airports Association</i></p> <p>(g) and (h)</p> <p>IR should provide a high level Requirement. Move detailed provisions to GM to allow flexibility and proportionality.</p>

response	<p>Noted</p> <p>EASA has reviewed the proposed text and has the view that it is already at the appropriate level to ensure legal certainty without being prescriptive, in order to transpose internationally agreed minimum standards.</p>
comment	<p>600 comment by: CAA Norway</p> <p>ADR.OPS.057</p> <p>COMMENT: Supported, However, see comments to GM1 ADR.OPS.A.057(d)(4) Origination of NOTAM to see whether this impacts on ADR.OPS.057 as well.</p>
response	<p>Noted</p> <p>EASA would like to thank you for your support regarding the proposed changes.</p>
comment	<p>638 comment by: CAA-NL</p> <p>ADR.OPS.A.057 - Origination of NOTAM</p> <p>CAA Netherlands proposes to remove the specific requirements for the training programme for aerodrome personnel with respect of NOTAMS from ADR.OPS.A.057 (f), (g), (h) and (i). The repetition of training requirements is not necessary and CAA Netherlands proposes to allocate them to the general training provisions of ADR.OR.D.017 by amending this implementing rule to contain all training provisions.</p>
response	<p>Noted</p> <p>EASA would like to thank you for sharing your view with regard to the proposed structure of the rules.</p>
comment	<p>697 comment by: Aena Aeropuertos, S.A.</p> <p>* (b)(1) It is specified that the NOTAM must be generated with enough time for the affected parties to take the necessary measures, leaving to the operator's criteria how much time is enough. We think that a minimum time must be defined</p> <p>* (c)(12) It is considered that the general requirement to originate a NOTAM when removing the obstacles of take-off/climb, missed approach, approach areas, as well as in the runway strip generates an excess of information that contributes an unnecessary alert in the pilot. We consider that the new obstacles should be published, but the elimination of them only under certain conditions, such as: shielded obstacles, isolated obstacles. Also, should the NOTAM be maintained until Item 10 of the AIP (AD2) is updated?</p> <p>* (d)(1) Erratum. The reference is made to a section, but it would be referenced the full section, is it (c)(4)?</p> <p>* (d)(3) The airport only generates a NOTAM Project, it is the NOF Office of the AIS</p>



who distributes the NOTAM publication in English. So this musn't be an obligation of the AD operator.

* (g)(2) It is considered convenient to develop everything related to training and testing of the competence in point ADR.OR.D.017 Training and proficiency check programmes, instead of extrapolating for each group of work. In addition, at this point (ADR.OR.D.017) everything concerning training periods is currently included as GM and not as CS. Currently, recurrent training at intervals does exceed 12 months. In general, the itinerary is marked "whenever there is a new procedure or an update thereof".

response Partially accepted

It is not considered appropriate to introduce criteria regarding lead time for the affected parties to take action, as the time depends on the event/situation each NOTAM refers to.

Moreover, a NOTAM needs to be originated in all circumstances when it comes to obstacle erection or removal. Generally, a NOTAM needs to be maintained until the relevant entries of the AIP are updated, in order to keep the aviation community informed about the obstacle. Point (d)(3) has been amended to accommodate also the use of other languages in NOTAM origination. The reference to (d)(4) has been updated.

EASA would like to thank you for sharing your view regarding the structure of rules regarding training.

comment 703

comment by: *Irish Aviation Authority*

The IAA believes that it would be appropriate to review ADR.OR.D.017 and ensure consistency and harmonisation of provisions through the Implementing Rules for Aerodromes. The general appropriate durations of validity for initial and recurrent training should be clearly set out for all types of training – e.g. Procedural – NOTAM Origination, etc.; General Skill Based – Airside Driving, Radio Telephony, etc., and Specialist Skill Based / On-The-Job Currency / Professional Development – e.g. RFFS Training / Follow Me, etc. EASA should endeavour to create as much clarity as possible as to when a recurrent training check is required and when a proficiency check is required and illustrate how these requirements differ.

Revising ADR.OR.D.017 would also be an opportunity to create greater clarity around the requirements for the utilisation of: "Instructors" and "Assessors". EASA could set out clearly, in relation to the various types of training referenced above, perhaps by an example illustration, when it is appropriate for an instructor to review candidate testing, i.e. simple Yes / No or True / False theory questions or whether an assessor is required in all instances, irrespective of the size and scale of the operation or the numbers of personnel receiving training.

This is increasingly important in the light of the new reference within the NPA to ADR.OR.B.040 to include the prior approval by the Competent Authority of the



training of drivers conducted by other organisations as required by ADR.OPS.B.025 (d)(1) Authorisation of vehicle drivers. With respect to large scale aerodrome operators, frequently the training of general airside driving / safety awareness is devolved to groundhandling companies for their own staff. If authorisation of these companies, or the processes adopted by the Aerodrome Operator to devolve training to those entities is required, absolute clarity around the utilisation of instructors vs. assessors and the appropriate validity periods for initial and recurrent training and proficiency checks is required and will greatly enhance oversight activities in this area.

Currently, it is known that there is a large degree of variability across aerodromes and member states with regard to the implementation of GM1 ADR.OR.D.017: “The initial training should be valid for a period not exceeding 12 months. Thereafter, the aerodrome operator should ensure that the persons mentioned under paragraph (a) of AMC1 ADR.OR.D.017(a);(b) complete recurrent training at intervals not exceeding 12 months since the initial completion of their training programme.”

Clarification of expectations in this regard, particularly given the interface with national requirements for aviation security and vetting of personnel would be welcomed.

response

Noted

EASA would like to thank you for sharing your view regarding the structure of rules on training.

comment

706

comment by: ACI Europe

General**comments:**

The provisions in the IR are too detailed resembling a procedure. The IR should be high level with details at AMC/GM level. A closer alignment with provisions in ICAO Annex 15 is recommended by ACI EUROPE.

ACI Europe would like to draw EASA’s attention to the fact that the aerodrome operator is not always in possession of all relevant information: Especially in cases mentioned in section (c), points (3) and (7) NOTAM might be originated without any contribution or knowledge of the aerodrome operator.

Hence, ACI Europe advocates for a transfer of section (c) to AMC-level and for a clarification that the local ANSP is the responsible entity for NOTAM publication. The regulation also needs to allow more place for national arrangements between aerodrome operator and ANS/AIS provider as many of the requirements in this regulations are the responsibility not of the ADR in several EASA member states but of other organisations (e.g. ANSP or AIS Service Providers). For this reason, the regulation should stick to basic principles and consider the airport operator’s responsibilities as follows:



response

- to agree upon necessary arrangements with appropriate ANS/AIS provider
- to transfer raw information to AIS (clearly and unambiguously) whenever necessary
- to train the appropriate personnel
- to maintain training records.

Detailed provisions should be shifted to preferably GM.

Partially accepted

The text is aligned with the provisions of Annex 15, and proposed provisions already foresee in point (a)(1) that a NOTAM is to be issued by the AIS provider.

The proposed provisions of (c)(3 and (c)(7) have been amended in the suggested direction.

However, the proposed solution for the structure of the relevant rules does not take into account that the proposed provisions address internationally agreed minimum standards, which need to be transposed in a manner that ensures legal certainty and enforceability. Please also note that similar provisions are contained in EASA Opinion No 02/2018, which addresses the responsibilities of the AIS providers with regard to the issuance of NOTAMs.

comment

708

comment by: ACI Europe

Points (c)(1) - (16)

ACI Europe would like to draw EASA's attention to the fact that the aerodrome operator is not always in possession of all relevant information: Especially in cases mentioned in section (c), points (3) and (7) NOTAM might be originated without any contribution or knowledge of the aerodrome operator.

Although this is important information to which ADR operators must adhere, the **level of detail included in this IR should be reserved for AMC/GM**. Points (c)(1) to (c)(16) as well as (g) of this Implementing Rule should be moved to AMC / GM level.

Specific

Comments:

(c)(11) Please clarify the term 'surroundings' in more detail, for instance, distances.

(c)(12) Are other OLS excluded?

(d)(1) What is meant with 'except as provided for in (4)..'? Which point (4) is referred to? Suggestion is to change '(4)' into '..point (d)(4)..'

(d)(3) (d)(3) By using the word 'originated', it is suggested that the aerodrome operator (being a data originator) has to provide the NOTAM text in English. This is an unnecessary requirement as the objective is that the NOTAM is published in English (and thus the AIS provider issues the NOTAM in English); therefore the NOTAM text provided by the aerodrome operator can (theoretically) be in another (local) language. This matter should be part of the required agreement between the aerodrome operator and the AIS provider.



response	<p>(d)(6)(i) & (ii) as well as (d)(7) The issuance of these required elements is the responsibility of the AIS provider. Therefore provision of these requirements in Regulation (EU) 139/2014 seems not applicable to the aerodrome operator. It is suggested to delete points (d)(6)(i) and (ii) from this Implementing Rule and/or put them in GM.</p> <p>Partially accepted</p> <p>The proposed provisions of (c)(3 and (c)(7), (d)(1), and (d)(3) and have been amended in the suggested direction. With regard to point (c)(12), please note the content of the corresponding provision of Annex 15.</p> <p>With regard to the comment on point (d)(6), please note that it is the NOTAM originator’s responsibility to provide the information (series and number that had been previously attributed by the AIS provider) of the NOTAM that needs to be cancelled or replaced, so that the AIS provider is enabled to issue a NOTAM that cancels or replaces the correct NOTAM. However, the term ‘series’ in (d)(6)(ii) has been removed. With regard to the comment on point (d)(7), please note that its intent is to ensure that the aerodrome operator will not originate more than one NOTAMs in order to request the cancelation or replacement of a single NOTAM, since only one NOTAM may be issued by the AIS provider cancelling or replacing one NOTAM.</p> <p>Please note that the term ‘surroundings’ is already used in the Basic Regulation and Regulation (EU) No 139/2014. In case of need, EASA will consider addressing the request in the context of a more relevant task, in a global manner.</p> <p>Please also note that the proposed solution for the structure of the relevant rules does not take into account that the draft provisions address internationally agreed minimum standards, which need to be transposed in a manner that ensures legal certainty and enforceability. Moreover, similar provisions are contained in EASA Opinion No 02/2018, which addresses the responsibilities of the AIS providers with regard to the issuance of NOTAMs.</p>
comment	<p>733 comment by: SAS</p> <p>Supported. (see comment: GM1 ADR.OPS.A.057(d)(4)).</p>
response	<p>Noted</p> <p>EASA would like to thank you for your support regarding the proposed changes.</p>
comment	<p>798 comment by: ENAIRE</p> <ul style="list-style-type: none"> • ADR.OPS.A.057. Regarding the origination of NOTAM there is nothing to add. But it is advisable that more robust procedures on airlines ensure that



	all relevant NOTAMs are delivered to the crews and the information is understood by them.
response	Noted Regulation (EU) No 965/2012 already addresses this issue.
comment	807 comment by: <i>Assaeroporti - Associazione Italiana Gestori Aeroporti</i> NPA Content: (12) erecting or removal of, or changes to, obstacles to air navigation in the take-off/climb, missed approach, approach areas as well as on the runway strip; Comment: A clarification is needed to determine if the mentioned obstacles are fixed obstacles like trees, buildings, or removable like cranes.
response	Noted The term 'obstacle' covers, by definition, both fixed and mobile obstacles. Please refer to Article 2 of Regulation (EU) No 139/2014.
comment	881 comment by: <i>Aleksandar Ilkovski</i> ADR.OPS.A.057(c)(11). Explain the term 'surroundings' in more detail, for instance, distances.
response	Noted Please note that the term surroundings is already used in the Basic Regulation and Regulation (EU) No 139/2014. In case of need, EASA will consider addressing the request in the context of a more relevant task, in a global manner.
comment	884 comment by: <i>Aleksandar Ilkovski</i> ADR.OPS.A.057(c)(11). Are other obstacle limitation surfaces excluded?
response	Noted With regard to point (c)(12) which refers to the obstacles, please note the content of the corresponding provision of Annex 15. Please also note the proposed point (c)(15).
comment	887 comment by: <i>Aleksandar Ilkovski</i> ADR.OPS.A.057 Rationale:



response	<p>ADR.OR.D.017 should cover all generic training requirements common for all types of training. The specific for each requirement can be listed in respective area.</p> <p>Noted</p> <p>EASA would like to thank you for sharing your view regarding the structure of rules regarding training.</p>
comment	<p>978 comment by: <i>Swedish Transport Agency</i></p> <p>Supported.</p>
response	<p>Noted</p> <p>EASA would like to thank you for your support regarding the proposed changes.</p>
comment	<p>1004 comment by: <i>Danish Transport, Construction and Housing Authority</i></p> <p>ADR.OPS.A.057(c)(13) - changes in aerodrome/heliport rescue and firefighting category</p> <p>Question: How is this to be understood.</p> <p>Rationale: To day AMC2.ADR.OPS.B.010(a)(2)(b) gives the aerodrome the opportunity to adjust the "Level of Protection" during the day. Is the new requirement to be understood like a NOTAM is to be issued each time there is a reduction in the RFSS-personnel. And if not, when is there to be issued a NOTAM - this is not quite clear in the NPA.</p>
response	<p>Accepted</p> <p>Annex 15 foresees that a NOTAM should be originated and issued, amongst others, for ‘s) changes in aerodrome/heliport rescue and firefighting category provided (see Annex 14, Volume I, Chapter 9, and Attachment A, Section 17);’.</p> <p>On the other hand, Annex 14 foresees in paragraph 2.11.2 that ‘The level of protection normally available at an aerodrome should be expressed in terms of the category of the rescue and firefighting services as described in 9.2 ...’, while paragraph 2.11.3 that ‘Changes in the level of protection normally available at an aerodrome for rescue and firefighting shall be notified to the appropriate air traffic services units and aeronautical information services units to enable those units to provide the necessary information to arriving and departing aircraft. When such a change has been corrected, the above units shall be advised accordingly.’.</p> <p>Point (b) of AMC.ADR.OPS.B.010(a)(2) foresees that ‘... Notwithstanding (a), the aerodrome operator may, during anticipated periods of reduced activity (e.g. specific periods of the year or day), reduce the rescue and firefighting level of protection available at the aerodrome. In this case:</p>



(1) the level of protection should be no less than that needed for the highest category of aeroplane planned to use the aerodrome during that time, irrespective of the number of movements; and

(2) the periods of aerodrome operation with reduced rescue and firefighting level of protection should be published in the aeronautical information publication (AIP) or through notice to airmen (NOTAM).’

Therefore, the content of the above-mentioned AMC amplifies the content of a NOTAM that would be originated under the proposed requirement for NOTAM origination with regard to changes to the RFFS category. A reduction in the level of personnel may lead to the issuance of such a NOTAM, to the extent that the reduction affects the capability of the aerodrome operator to deliver the required RFFS service [see also AMC3 ADR.OPS.B.010(a)(2), AMC6 ADR.OPS.B.010(a)(2)]. A task and resource analysis would provide the required number of personnel for the corresponding level of protection.

comment

1012

comment by: *Flughafen Berlin Brandenburg GmbH*

First of all, we support the idea to avoid repetition within the regulatory documents.

Especially in the given example of training it would be helpful to “centralize” general (formal) requirements at a single point while describing other “decentral” aspects (e.g. training content) at the relevant sections of part-OPS and part-OR.

However, such an amendment “to ensure legal certainty” should not result in a transfer of training requirements from relevant AMC & GM of ADR.OR.D.017 to regulation level.

response

Noted

EASA would like to thank you for sharing your view regarding the structure of rules on training.

comment

1014

comment by: *Fraport AG*

Fraport sees no need for general provisions and requirements. The current training provisions are appropriate and feasible as they cover the necessary topics. For aerodromes which may not have to deal high frequently with NOTAMs it might be helpful to have a guide line for orientation. So it's proposed to bring all this out of ADR.OPS.A.057 to GM.

response

Noted

comment

1050

comment by: *Assaeroporti - Associazione Italiana Gestori Aeroporti***NPA Content:**

(a) The aerodrome operator shall:



response	<p>.....</p> <p>2) designate aerodrome personnel, who have received training and demonstrated their competence in accordance with (f), to originate a NOTAM and provide relevant information to the aeronautical information service providers with which it has arrangements.</p> <p>Comment: It is necessary that the text specifies that the personnel with proven experience in the publication of NOTAMs is subject only to a periodic update, because the personnel is already formed.</p> <p>Noted</p> <p>The intent of point (f) is to ensure that personnel are trained in accordance with a certain training programme. It is the aerodrome operator's responsibility to ensure that each person meets the requirements of the training programme and acts accordingly.</p>
comment	<p>1051 comment by: <i>Assaeroporti - Associazione Italiana Gestori Aeroporti</i></p> <p>NPA Content: (c) The aerodrome operator shall originate a NOTAM when it is necessary to provide the following information:</p> <p>Comment: It is necessary to specify (as required by Italian AIP) that the NOTAMs that refer to an airport can be also admitted by the National Regulatory Authority and the ATS service provider and not only by the aerodrome operator.</p>
response	<p>Partially accepted</p> <p>The intent of these provisions is to define the responsibilities of the aerodrome operator, which are different from these of the ANSP. The text of point (c)(3) and (c)(7) has been adjusted in the suggested direction. Nothing in these provisions prevents the competent authority from originating a NOTAM.</p>
comment	<p>1052 comment by: <i>Assaeroporti - Associazione Italiana Gestori Aeroporti</i></p> <p>NPA content: (e) The aerodrome operator shall, following the publication of a NOTAM that it has originated, review its content to ensure its accuracy, and ensure the dissemination of the information to all relevant aerodrome personnel and organisations at the aerodrome. Rationale. Point (e) intends to make sure that a NOTAM is reviewed after its publication, to ensure the correctness of its content and that the relevant information is disseminated to the persons and organisations concerned.</p> <p>Comment: Given that the Control of the NOTAM by the Operator: 1. happens at compile time</p>

	<p>2. It occurs only for NOTAMs of which emission was requested by the same Operator (we cannot control the correctness of the NOTAM text whose publication request was made by other Entities)</p> <p>It is revealed that a further check of the NOTAM after its publication by the ATS entity is not recommended since:</p> <ol style="list-style-type: none"> 1. The control would still occur at a time when the NOTAM is already issued 2. The added control would force the aerodrome Operator to prepare a garrison of qualified personnel that awaits the publication of the NOTAM (whose times are not absolutely certain) to then be able to double check it.
response	<p>Not accepted</p> <p>The aerodrome operator needs to review the NOTAM it has originated to ensure that its content is correct. This requirement is similar to the one already in place in ADR.OPS.A.010 (b)(1).</p>

comment	<p>1053 comment by: <i>Assaeroporti - Associazione Italiana Gestori Aeroporti</i></p> <p>NPA Content:</p> <p>The aerodrome operator shall ensure that aerodrome personnel mentioned in (f): (1) undergo proficiency checks at intervals not exceeding 24 months, since the completion of their initial training;</p> <p>(2) receive recurrent training at intervals not exceeding 12 months since the completion of their initial training; and</p> <p>Comment:</p> <p>It is proposed to decrease the frequency of proficiency checks and recurrent training for personnel who have more than 5 years of experience in completing NOTAMs.</p>
response	<p>Partially accepted</p> <p>The concept of the proficiency check is to ensure the continuing competence of a person at regular intervals. The fact that a person has previous experience does not mean that he or she does not need to undergo proficiency checks or recurrent training. The text has been amended with regard to the intervals for recurrent training.</p>

comment	<p>1362 comment by: <i>Andreas Herndler, CAA Austria</i></p> <p>Origination of a NOTAM in case of (c)(3), (7), (11) or (15) is the responsibility of the ANSP. Therefore whole (c) should be widened with <i>when applicable</i>. Publication of a NOTAM is the responsibility of AIS in alignment with Regulation (EU) 1035/2011.</p> <p>Therefore following adjustments are suggested:</p> <p>(c) The aerodrome operator shall originate a NOTAM when it is necessary to provide the following information when applicable:</p> <p>(d) The aerodrome operator shall ensure that:</p> <p>(1) except as provided for in (4), each NOTAM contains the applicable information in</p>
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~~the order shown in the NOTAM Format of Appendix 1 to this Annex;~~
~~(2) NOTAM text is composed of the significations/uniform abbreviated phraseology assigned to the NOTAM Code, complemented by ICAO abbreviations, indicators, identifiers, designators, call signs, frequencies, figures and plain language;~~
~~(3) a NOTAM is originated in the English language;~~
~~(4) Information concerning snow, slush, ice, frost, standing water or water associated with snow, slush, ice or frost on the movement area is disseminated by means of SNOWTAM and contains the information in the order shown in the SNOWTAM Format of Appendix 2 to this Annex;~~
~~(5) when an error has occurred in a NOTAM, a NOTAM is originated to replace or cancel the erroneous NOTAM;~~
~~(6) when a NOTAM is originated to cancel or replace a previous NOTAM: (i) the series and number/year of the previous NOTAM are indicated; and (ii) the series, location indicator and subject of both NOTAM are the same;~~
~~(7) a NOTAM is originated to cancel or replace only one NOTAM;~~
~~(8) each originated NOTAM deals with only one subject and one condition of the subject.~~
~~(9) each originated NOTAM is as brief as possible and compiled so that its meaning is clear without the need to refer to another document;~~
~~(10) an originated NOTAM containing permanent or temporary information of long duration includes appropriate references to the AIP or AIP supplement; and~~
~~(11) the location indicator included in the text of a NOTAM for the aerodrome is contained in the Location Indicators. A curtailed form of such indicators shall not be used.~~
~~(g) The aerodrome operator shall ensure that aerodrome personnel mentioned in (f):~~
~~(1) undergo proficiency checks at intervals not exceeding 24 months, since the completion of their initial training;~~
~~(2) receive recurrent training at intervals not exceeding 12 months since the completion of their initial training; and~~
~~(3) receive refresher training when absent from their duties for a period not less than 3 and not more than 12 consecutive months. In case of absence beyond 12 consecutive months aerodrome personnel shall undergo initial training.~~
~~(h) The training foreseen in (f)(1) shall be provided by instructors, and the assessments and proficiency checks foreseen in (f)(1) and (g)(1) shall be conducted by assessors.~~
~~(i) The aerodrome operator shall maintain records:~~
~~(2) regarding the implementation of (f) and (g).~~

response

Partially accepted

This draft provision specifies the cases when an aerodrome operator has to originate a NOTAM. The issuance of the originated NOTAM is the next step and is indeed the responsibility of the AIP provider. The text of points (c)(3), (c)(6) and (c)(7) has been amended, while certain parts of the text have been removed to avoid overlaps.

comment

1388 comment by: Graz Airport

(c) The aerodrome operator shall originate a NOTAM when it is necessary to provide the following information **when applicable**:



- (d) The aerodrome operator shall ensure that:
- (1) except as provided for in (4), each NOTAM contains the applicable information in the order shown in the NOTAM Format of Appendix 1 to this Annex;
 - (2) NOTAM text is composed of the significations/uniform abbreviated phraseology assigned to the NOTAM Code, complemented by ICAO abbreviations, indicators, identifiers, designators, call signs, frequencies, figures and plain language;
 - (3) a NOTAM is originated in the English language;
 - (4) Information concerning snow, slush, ice, frost, standing water or water associated with snow, slush, ice or frost on the movement area is disseminated by means of SNOTAM and contains the information in the order shown in the SNOTAM Format of Appendix 2 to this Annex;
 - (5) when an error has occurred in a NOTAM, a NOTAM is originated to replace or cancel the erroneous NOTAM;
 - (6) when a NOTAM is originated to cancel or replace a previous NOTAM: (i) the series and number/year of the previous NOTAM are indicated; and (ii) the series, location indicator and subject of both NOTAM are the same;
 - (7) a NOTAM is originated to cancel or replace only one NOTAM;
 - (8) each originated NOTAM deals with only one subject and one condition of the subject.
 - (9) each originated NOTAM is as brief as possible and compiled so that its meaning is clear without the need to refer to another document;
 - (10) an originated NOTAM containing permanent or temporary information of long duration includes appropriate references to the AIP or AIP supplement; and
 - (11) the location indicator included in the text of a NOTAM for the aerodrome is contained in the Location Indicators. A curtailed form of such indicators shall not be used.
- (g) The aerodrome operator shall ensure that aerodrome personnel mentioned in (f):
- (1) undergo proficiency checks at intervals not exceeding 24 months, since the completion of their initial training;
 - (2) receive recurrent training at intervals not exceeding 12 months since the completion of their initial training; and
 - (3) receive refresher training when absent from their duties for a period not less than 3 and not more than 12 consecutive months. In case of absence beyond 12 consecutive months aerodrome personnel shall undergo initial training.
- (h) The training foreseen in (f)(1) shall be provided by instructors, and the assessments and proficiency checks foreseen in (f)(1) and (g)(1) shall be conducted by assessors.
- (i) The aerodrome operator shall maintain records:
- (2) regarding the implementation of (f) and (g).

Origination of a NOTAM in case of (c)(3), (7), (11) or (15) is the responsibility of the ANSP. Therefore whole (c) should be widened with when applicable.



response Partially accepted

This draft provision specifies the cases when an aerodrome operator has to originate a NOTAM. The issuance of the originated NOTAM is the next step and is indeed the responsibility of the AIP provider. The text of points (c)(3), (c)(6) and (c)(7) has been amended, while certain parts of the text have been removed to avoid overlaps.

comment

1460

comment by: F. Ehmoser

(c) The aerodrome operator shall originate a NOTAM when it is necessary to provide the following information **when applicable**:

~~(d) The aerodrome operator shall ensure that:~~

~~(1) except as provided for in (4), each NOTAM contains the applicable information in the order shown in the NOTAM Format of Appendix 1 to this Annex;~~

~~(2) NOTAM text is composed of the significations/uniform abbreviated phraseology assigned to the NOTAM Code, complemented by ICAO abbreviations, indicators, identifiers, designators, call signs, frequencies, figures and plain language;~~

~~(3) a NOTAM is originated in the English language;~~

~~(4) Information concerning snow, slush, ice, frost, standing water or water associated with snow, slush, ice or frost on the movement area is disseminated by means of SNOWTAM and contains the information in the order shown in the SNOWTAM Format of Appendix 2 to this Annex;~~

~~(5) when an error has occurred in a NOTAM, a NOTAM is originated to replace or cancel the erroneous NOTAM;~~

~~(6) when a NOTAM is originated to cancel or replace a previous NOTAM: (i) the series and number/year of the previous NOTAM are indicated; and (ii) the series, location indicator and subject of both NOTAM are the same;~~

~~(7) a NOTAM is originated to cancel or replace only one NOTAM;~~

~~(8) each originated NOTAM deals with only one subject and one condition of the subject.~~

~~(9) each originated NOTAM is as brief as possible and compiled so that its meaning is clear without the need to refer to another document;~~

~~(10) an originated NOTAM containing permanent or temporary information of long duration includes appropriate references to the AIP or AIP supplement; and~~

~~(11) the location indicator included in the text of a NOTAM for the aerodrome is contained in the Location Indicators. A curtailed form of such indicators shall not be used.~~

~~(g) The aerodrome operator shall ensure that aerodrome personnel mentioned in (f):~~

~~(1) undergo proficiency checks at intervals not exceeding 24 months, since the completion of their initial training;~~

~~(2) receive recurrent training at intervals not exceeding 12 months since the completion of their initial training; and~~

~~(3) receive refresher training when absent from their duties for a period not less than 3 and not more than 12 consecutive months. In case of absence beyond 12 consecutive months aerodrome personnel shall undergo initial training.~~

~~(h) The training foreseen in (f)(1) shall be provided by instructors, and the assessments and proficiency checks foreseen in (f)(1) and (g)(1) shall be conducted~~



	<p>by _____ assessors. (i) The aerodrome operator shall maintain records: (2) regarding the implementation of (f) and (g).</p> <p><i>Origination of a NOTAM in case of (c)(3), (7), (11) or (15) is the responsibility of the ANSP. Therefore whole (c) should be widened with when applicable. Publication of a NOTAM is the responsibility of AIS in alignment with Regulation (EU) 1035/2011.</i></p>
response	<p>Partially accepted</p> <p>This draft provision specifies the cases when an aerodrome operator has to originate a NOTAM. The issuance of the originated NOTAM is the next step and is indeed the responsibility of the AIP provider. The text of points (c)(3), (c)(6) and (c)(7) has been amended, while certain parts of the text have been removed to avoid overlaps.</p>
comment	<p>1469 comment by: <i>Brussels Airport Company</i></p> <p>Point (c) element (16) 'operation of aircraft' is too general. Proposal to delete.</p> <p>Proposal to stick to Annex 15 (reference 6.3.2.3) in the spirit of worldwide uniformity when issuing NOTAMs.</p>
response	<p>Accepted</p> <p>This text has been amended.</p>
comment	<p>1475 comment by: <i>Atle Vivas</i></p> <p>ADR.OPS.057</p> <p>COMMENT: Supported, However, see comments to GM1 ADR.OPS.A.057(d)(4) Origination of NOTAM to see whether this impacts on ADR.OPS.057 as well.</p>
response	<p>Noted</p> <p>EASA would like to thank you for your support regarding the proposed changes.</p>
comment	<p>1715 comment by: <i>ENAC Italy</i></p> <p>ADR.OPS.A.057 Origination of NOTAM variation to aeronautical information products</p> <p>(a) The aerodrome operator shall:</p> <p>(1) establish and implement procedures to originate a NOTAM variation to aeronautical information products to be issued by the relevant aeronautical information services provider:</p> <p>(i) containing information on the establishment, condition, or change of any aeronautical facility, service, procedure or hazard, the timely knowledge of which is essential to personnel involved with flight operations;</p>



(ii) whenever the information to be distributed is of a temporary nature and of short duration or when operationally significant permanent changes or temporary changes of long duration are made at short notice, except for extensive text and/or graphics.

(2) designate aerodrome personnel, who have received training and demonstrated their competence in accordance with (f), to originate a NOTAM variation to aeronautical information products and provide relevant information to the aeronautical information service providers with which it has arrangements.

(b) The aerodrome operator shall ensure that:

(c) The aerodrome operator shall originate a NOTAM when it is necessary to provide the following information:

(d) The aerodrome operator shall ensure that:

(e b) The aerodrome operator shall, following the publication of a NOTAM variation to aeronautical information products that it has originated, review its content to ensure its accuracy, and ensure the dissemination of the information to all relevant aerodrome personnel and organisations at the aerodrome.

(f c) The aerodrome operator shall ensure that the training programme for aerodrome personnel to be designated as NOTAM variation to aeronautical information products originators, and for other personnel whose duties involve the use of a NOTAM aeronautical information product:

(1) includes:

(i) theoretical and on-the-job training of adequate duration, including performance assessment, at least in the following areas:

(A) regulatory framework;

(B) aerodrome operational procedures;

(ii) competency assessment of the personnel; and

(2) is supported by adequate and suitable training facilities and means.

(g d) The aerodrome operator shall ensure that aerodrome personnel mentioned in (f c):

(1) undergo proficiency checks at intervals not exceeding 24 months, since the completion of their initial training;

(2) receive recurrent training at intervals not exceeding 12 months since the completion of their initial training; and

(3) receive refresher training when absent from their duties for a period not less than 3 and not more than 12 consecutive months. In case of absence beyond 12 consecutive months aerodrome personnel shall undergo initial training.

(h e) The training foreseen in (f c)(1) shall be provided by instructors, and the assessments and proficiency checks foreseen in (f c)(1) and (g d)(1) shall be conducted by assessors.

(i f) The aerodrome operator shall maintain records:

(1) of the NOTAM variation to aeronautical information products it originated and those that were issued; and

(2) regarding the implementation of (f c) and (g d).

Justification:

To extend the requirements set up for NOTAMS to all aviation information products as per definition 6g. NOTAMS are only an item in the list of aeronautical information



	<p>products, other products are as important as NOTAMs for the safety of flight operations. Specific occasion for issuing NOTAMs can be moved in AMC or GM, because they could not be exhaustive.</p>
response	<p>Noted</p> <p>This proposal concerns only the cases of NOTAM origination by the aerodrome operator.</p> <p>Please note that point (a)(1)(i) defines broadly the cases when a NOTAM needs to be originated. Indeed, NOTAMs may indeed be issued for a variety of reasons; however, the intent of the draft point (c) is to ensure that a NOTAM will be originated in the prescribed occasions.</p>
comment	<p>1736 comment by: <i>UAF (Union des Aéroports Français)</i></p> <p>UAF support ACI E comment#706</p>
response	<p>Noted</p> <p>Please refer to the reply to comment No 706.</p>
comment	<p>1798 comment by: <i>Danish Transport, Construction and Housing Authority</i></p> <p>The Danish CAAs answer to EASAs question on page 37, section 6 - The Danish CAA thinks it's fine that the training requirements are located in the various relevant annexes.</p>
response	<p>Noted</p> <p>EASA would like to thank you for sharing your view regarding the structure of rules on training.</p>
comment	<p>1941 comment by: <i>European Cockpit Association</i></p> <p>ADR.OPS.A.057 Origination of NOTAM (RMT.0703)</p> <p>ECA's comment: NOTAMs should also be published if RWY is "Slippery when wet" as this is a condition for RWY maintenance in the new system rather than a RWY condition to be reported by RWYCC.</p>
response	<p>Accepted</p> <p>The text has been amended to explicitly address this case.</p>

ADR.OPS.A.060 Reporting of surface contaminants	p. 37-38
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comment 238

comment by: *Gatwick Airport*

	No Comment	
response	Noted	
comment	601	comment by: CAA Norway
	ADR.OPS.A.060 Reporting of surface contaminants COMMENT: Supported	
response	Noted	
	EASA would like to thank you for your support regarding the proposed changes.	
comment	734	comment by: SAS
	Supported	
response	Noted	
	EASA would like to thank you for your support regarding the proposed changes.	
comment	979	comment by: Swedish Transport Agency
	Supported.	
response	Noted	
	EASA would like to thank you for your support regarding the proposed changes.	
comment	1005	comment by: Danish Transport, Construction and Housing Authority
	Supported	
response	Noted	
	EASA would like to thank you for your support regarding the proposed changes.	
comment	1357	comment by: Wideroe Flyveselskap AS
	Supported.	
response	Noted	
	EASA would like to thank you for your support regarding the proposed changes.	
comment	1383	comment by: UAF (Union des Aéroports Français)
	This rule is not enough clear, and criterion to provide a report need to be define with an AMC.	



response	<p>Not accepted</p> <p>The rule specifies which surface contaminants need to be reported. The rule should be read in conjunction with ADR.OPS.A.65, ADR.OPS.B.035, ADR.OPS.B.036 and ADR.OPS.B.037.</p>
comment	<p>1497 comment by: <i>Atle Vivas</i></p> <p>Supported</p>
response	<p>Noted</p> <p>EASA would like to thank you for your support regarding the proposed changes.</p>
comment	<p>1579 comment by: <i>Avinor AS</i></p> <p>Question in NPA: <i>'Do you consider that ADR.OR.D.017 needs to be amended to incorporate all general training provisions, in order to avoid repetition of requirements and ensure legal certainty?'</i></p> <p>Avinor response: Yes, the training requirements are easier to locate and assess in full when they are all in one provision.</p>
response	<p>Noted</p> <p>EASA would like to thank you for sharing your view regarding the structure of rules on training.</p>
comment	<p>1890 comment by: <i>ANAC</i></p> <p>We would like to propose the inclusion of reference to further possible contaminants on the runway and that have an impact on operation and therefor should be reported: rubber and mud (e.g. concentrated pollen on spring).</p>
response	<p>Noted</p> <p>Rubber is related to slippery wet runway, and for mud, there are no aeroplane performance data associated.</p>
comment	<p>1942 comment by: <i>European Cockpit Association</i></p> <p>Question by EASA: "Do you consider that ADR.OR.D.017 needs to be amended to incorporate all general training provisions, in order to avoid repetition of requirements and ensure legal certainty?"</p>

	<p>ECA supports a target driven approach where the regulation to be put into place is tested to ensure that the desired standards are achieved. The result of such a test would inform the format in which to legislate.</p>
<p>response</p>	<p>Noted</p> <p>EASA would like to thank you for sharing your view regarding the structure of rules on training.</p>

<p>ADR.OPS.A.065 Reporting of the runway surface condition</p>	<p>p. 38-41</p>
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<p>comment</p>	<p>16 comment by: <i>Aerodrome safety regulation departement</i></p> <p>Point (a) : The descriptors (8) SLIPPERY WET is different from ICAO descriptor WET in the same runway conditions and (10) SPECIALLY PREPARED WINTER RUNWAY has been added. Thus, those descriptors haven't been modified, nor in R UE 965/2012 which still refers to Doc 9981 PANS-ADR (for example in AMC1 CAT.OP.MPA.311), nor in SERA AMC1. 15001 amendments on phraseology which refers to ESTIMATED SURFACE FRICTION (in 1.1.1 a) 5.).</p> <p>Point (c) : The runway conditions until which the RCR should be issued need to be clarified in the AMC or in a GM so that the context of the last issuance of a RCR could be harmonized between aerodromes (WET or DRY).</p> <p>Point (d) : we suggest to add the elements developed in the corresponding rationale to a GM because this requirement will represent a change in aerodrome operators current practices and it will be helpful for them to be given guidance material on the objective of this change.</p> <p>Point (e) does not transpose faithfully and with the same level of details, the philosophy of provisions 2.9.9 and 2.9.10 of ICAO in case the runway or part of it is SLIPPERY WET. Indeed, the link between the friction level coefficient and the report of a slippery wet runway made by ICAO gave substancial indications about when to inform the aerodrome users. The rational also explains that information to communicate result from maintenance actions out of any situation of contamination of the runway.</p> <p>It would also be useful to re-insert the part of the ICAO provision that has been removed and suggest the following wording closer to ICAO philosophy :</p> <p>(e) When a paved runway or portion thereof is slippery wet, the aerodrome operator shall make such information available to the relevant aerodrome users. This shall be done by issuing a NOTAM when the friction level is less than the minimum friction level, as measured during maintenance checks of the runway, and shall describe the location of the affected portion.</p>
<p>response</p>	<p>Noted</p> <p>For point (a), the slippery wet runway is added because in this case, RWYCC 3 should be assigned. For the inclusion of SPECIALLY PREPARED WINTER RUNWAY, please refer to the rationale of the introduction of ADR.OPS.B.036</p>



	<p>For point (c), the comment is noted. Both conditions are acceptable.</p> <p>(d) Accepted</p> <p>Point (e) refers to reporting only, therefore the maintenance part is not included. The maintenance issues are included in ADR.OPS.C.010.</p>	
comment	<p>205</p> <p>The list of descriptions should be expanded to include: DRY SNOW ON 10 PCT ICE DRY SNOW ON 25 PCT ICE DRY SNOW ON 50 PCT ICE WET SNOW ON 10 PCT ICE WET SNOW ON 25 PCT ICE WET SNOW ON 50 PCT ICE</p> <p>These terms will provide pilots with a better understanding of the prevailing runway surface condition when there are combinations of dry or wet snow (normally covering the runway) and a smaller percentage of ice below.</p> <p>Note: The percentage of ice below dry/wet snow will normally be identical to the percentage of ice reported prior to the last snow fall, and will therefore in most cases already be known to the aerodrome operator.</p>	comment by: <i>Per Ove Torsteinsson</i>
response	<p>Not accepted</p> <p>The information is not usable by the flight crews for performance calculations.</p>	
comment	<p>222</p> <p>We agree explicitly with this provision.</p>	comment by: <i>GdF</i>
response	<p>Noted</p> <p>EASA would like to thank you for your support regarding the proposed changes.</p>	
comment	<p>239</p> <p>Support</p>	comment by: <i>Gatwick Airport</i>
response	<p>Noted</p> <p>EASA would like to thank you for your support regarding the proposed changes.</p>	
comment	<p>319</p>	comment by: <i>John Hamshare (Heathrow)</i>



response	<p>Page 39 new ADR.OPS.A.065 (d)</p> <p>“Friction measurements shall not be reported” contradicts GM1 ADR.OPS.A.057 (d)(4) SNOWTAM Format 3, Situational Awareness, Item S.</p> <p>Accepted</p> <p>GM1 ADR.OPS.A.057(d)(4) has been revised.</p>
comment	<p>440 comment by: TopP Oy</p> <p><u>Current Page 39 Paragraph c):</u></p> <p><i>“... Reporting of the runway surface condition shall continue to reflect significant changes until the runway is no longer contaminated. When this situation occurs, the aerodrome operator shall issue an RCR that states that the runway is wet or dry as appropriate ...”</i></p> <p><u>Proposed change:</u></p> <p>We propose to add text to paragraph c), which will allow temporary “closing” of runway so, that last SNOWTAM message will not remain incorrectly effective 8 hours without update.</p> <p><i>“... Reporting of the runway surface condition shall continue to reflect significant changes until the runway is no longer contaminated. When this situation occurs, the aerodrome operator shall issue an RCR that states that the runway is wet or dry as appropriate. <u>However, runway may be reported to be closed, if runway is not temporarily under maintenance ...”</u></i></p> <p><u>Rationale:</u></p> <p>In Finland we have many AFIS type regional airports, which have regular traffic only in the morning and in the evening. Due to economic reasons, outside regular traffic hours runway is not maintained and runway condition is not reported. Airport however is kept open, and if a flight plan is filed, necessary runway maintenance actions will be carried out and SNOWTAM will be published.</p> <p>During low traffic period, it is not safe to leave potentially incorrect SNOWTAM message to hang out for 8 hours. It would be better to indicate, that runway is not under maintenance.</p>
response	<p>Noted</p> <p>As it is understood, this is a standard practice; therefore, the information is of permanent nature. In this case, it is more appropriate to disseminate this information through the AIP.</p>

comment

441

comment by: TopP Oy

Current Page 39 Paragraph d):

“... (d) Friction measurements shall not be reported ...”

Proposed change:

“... (d) Friction measurements may be reported in discretion by the aerodrome operator, if friction measuring device meets the established standards, friction measurement device is properly operated, aerodrome operator provides sufficient evidence of the friction ratio to RWYCC and method is agreed by the state ...”

Rationale:

To deny the reporting of measured friction coefficient values conflicts with the SNOWTAM format, which contains element S) to report measured friction coefficient values. However, friction values should not be reported, if the measurement process is not proper. Proper in this context means:

- device meeting the established standards
- proper initial user training
- annual user refreshment training
- weekly calibration program of each device
- annual overhaul program of each device
- respect of the device operational envelope eq. hard contaminants (wet, frost, compacted snow and ice) and maximum depth per each thick contaminant (water, slush, wet snow and dry snow)
- method is agreed by the state

response Not accepted

Friction measurements are not correlated with aeroplane performance data; therefore, it is decided that measurements shall not be reported.

comment

482

comment by: AIRBUS

This paragraph describes the start and end conditions for reporting of runway conditions referring to a single runway. On many airports there are several physical runways, and in most cases they will be affected similarly by contamination. The case may arise however, where one runway is bare and dry and another runway is contaminated. Feedback from the FAA implementation shows that pilots have requested to land on a contaminated runway for which data was reported rather than landing on one for which no report was available, thus refusing the better runway. As a consequence, in the US it is mandatory to include all runways into the SNOWTAM, even those not affected by Ice and Snow and for which only codes 6/6/6 are reported. It is recommended that a paragraph is added to this rule to mandate reporting of runway conditions for all runways of an aerodrome for as long as reports are generated for at least one runway due to contamination.



response	<p>Accepted</p> <p>A new GM4 ADR.OPS.A065(a) is proposed.</p>
comment	<p>529 comment by: ISAVIA ohf.</p> <p>Proposed changes to item (d): <i>Friction measurements based on a state approved device can be reported in field (S) of the situational awareness section of the SNOWTAM format.</i> This also harmonizes with, and eliminates contradiction in the NPA to: “GM1 ADR.OPS.A.057(d)(4) Origination of NOTAM / SNOWTAM FORMAT / 3. Situational awareness section / Item S — Measured friction coefficient. Where reported, the measured friction coefficient and friction measuring device should be inserted.”</p>
response	<p>Noted</p> <p>Friction measurements are not correlated with aeroplane performance data; therefore, it is decided that measurements shall not be reported. Furthermore, Item S in GM1 ADR.OPS.A.057(d)(4) has been revised.</p>
comment	<p>538 comment by: Finavia Oyj</p> <p><u>Current Page 39 Paragraph c):</u> <i>“... Reporting of the runway surface condition shall continue to reflect significant changes until the runway is no longer contaminated. When this situation occurs, the aerodrome operator shall issue an RCR that states that the runway is wet or dry as appropriate ...”</i></p> <p><u>Proposed change:</u> We propose to add text to paragraph c), which will allow temporary “closing” of runway so, that last SNOWTAM message will not remain incorrectly effective 8 hours without update. <i>“... Reporting of the runway surface condition shall continue to reflect significant changes until the runway is no longer contaminated. When this situation occurs, the aerodrome operator shall issue an RCR that states that the runway is wet or dry as appropriate. <u>However, runway may be reported to be closed, if runway is not temporarily under maintenance ...”</u></i></p> <p><u>Rationale:</u> In Finland we have many AFIS type regional airports, which have regular traffic only in the morning and in the evening. Due to economic reasons, outside regular traffic hours runway is not maintained and runway condition is not reported. Airport however is kept open, and if a flight plan is filed, necessary runway maintenance actions will be carried out and SNOWTAM will be published.</p> <p>During low traffic period, it is not safe to leave potentially incorrect SNOWTAM message to hang out for 8 hours. It would be better to indicate, that runway is not under maintenance.</p>

response	<p>Noted</p> <p>As it is understood, this is a standard practice; therefore, the information is of permanent nature. In this case, it is more appropriate to disseminate this information through the AIP.</p>
comment	<p>539 comment by: <i>Finavia Oyj</i></p> <p><u>Current Page 39 Paragraph d):</u> <i>"... (d) Friction measurements shall not be reported ..."</i></p> <p><u>Proposed change:</u> <i>"... (d) Friction measurements may be reported in discretion by the aerodrome operator, if friction measuring device meets the established standards, friction measurement device is properly operated, aerodrome operator provides sufficient evidence of the friction ratio to RWYCC and method is agreed by the state ..."</i></p> <p><u>Rationale:</u> To deny the reporting of measured friction coefficient values conflicts with the SNOWTAM format, which contains element S) to report measured friction coefficient values. However, friction values should not be reported, if the measurement process is not proper. Proper in this context means:</p> <ul style="list-style-type: none"> - device meeting the established standards - proper initial user training - annual user refreshment training - weekly calibration program of each device - annual overhaul program of each device - respect of the device operational envelope eq. hard contaminants (wet, frost, compacted snow and ice) and maximum depth per each thick contaminant (water, slush, wet snow and dry snow) - method is agreed by the state
response	<p>Noted</p> <p>Friction measurements are not correlated with aeroplane performance data; therefore, it is decided that measurements shall not be reported. Furthermore, Item S in GM1 ADR.OPS.A.057(d)(4) has been revised.</p>
comment	<p>602 comment by: <i>CAA Norway</i></p> <p>ADR.OPS.A.065 Reporting of the runway surface condition COMMENT: Supported</p>
response	<p>Noted</p> <p>EASA would like to thank you for your support regarding the proposed changes.</p>
comment	<p>604 comment by: <i>CAA Norway</i></p>

APPENDIX 2 SNOWTAM FORMAT

CONDITION DESCRIPTION OVER TOTAL RUNWAY LENGTH

COMMENT: ADD Specially prepared winter runway (SPWR)

RATIONALE: Specially prepared winter runway is a descriptor used in the RCAM and ADR.OPS.A.065.

NOTE: Changes to the NOTAM Format will affect Regulation 2017/373 with associated Annexes. May also affect 965/2012 (Opinion No 2/2019)

*NOTE: Reference 965/2012 (Opinion No 2/2019). It might be useful to explain that pilots will receive the content of the RCR as a SNOWTAM for preflight planning and through the ATIS or by Voice for operational consideration (last minute update for take-off performance calculations and for landing performance at the time of landing calculations, **AMC1 CAT.OP.MPA.300(a) Approach and landing conditions — aeroplanes***

response Accepted

comment 698 comment by: Aena Aeropuertos, S.A.

* (d) According to Annex 14 friction measurements mustn't be reported in runways contaminated with wet snow, slush or wet ice, but can be reported in runways contaminated with compact snow or ice should (Attachment A. 6)

response Noted

Currently there are no criteria established for friction measurement devices. Additionally, friction measurements are not correlated with aeroplane performance data; therefore, reporting them is not considered appropriate.

comment 709 comment by: ACI Europe

APPENDIX	2	SNOWTAM	FORMAT
CONDITION	DESCRIPTION	OVER TOTAL RUNWAY	LENGTH
COMMENT:	ADD Specially prepared winter runway (SPWR)		
RATIONALE:	Specially prepared winter runway is a descriptor used in the RCAM and ADR.OPS.A.065.		

Proposed new text to (d): Friction measurements shall not be reported, unless Member States have an established programme of runway friction measurement using a Member-State-approved friction measuring device.

RATIONALE: In order to make the text consistent between the SNOWTAM format and the RCR, the same text as is in GM1.ADR.OPS.A.057(d)(4) 2. ITEM S should be included in ADR.OPS.A.065 (d)

In Point S) of the SNOWTAM format (Appendix 2) it is still possible to report measured friction coefficient. This is inconsistent as Point (d) of ADR.OPS.A.065



response	<p>prohibits the reporting of friction measurements. It also GM1 ADR.OPS.A.057 (d)(4) SNOWTAM Format 3, Situational Awareness, Item S.</p> <p>Accepted</p>
comment	<p>710 comment by: ACI Europe</p> <p>In point (a) is it suggested to change the sequence of words into: ‘...shall include a runway condition code (RWYCC) using numbers 0 to 6, the contaminant coverage and depth, and a description using the following terms:...’ This sequence of words aligns the Implementing Rule with the sequence of the elements of the RCR required in the proposed SNOWTAM format under items E and F respectively.</p> <p>Point (a)(10) Specially prepared winter runway is not contained in point G) of the proposed SNOWTAM format. (Appendix 2) Points (18) and (19) are part of the situational awareness section of the proposed SNOWTAM format – these points as part of item G of the proposed SNOWTAM format can be discussed – the respective conditions seem not to be of any influence on aeroplane performance. See also GM1 38e.</p>
response	<p>Noted</p> <p>The comment on point (a) is accepted and the text has been revised as proposed.</p> <p>The comment on point (a)(10) is accepted and ‘specially prepared winter runway’ has been included in Item G of the SNOWTAM Form.</p> <p>Points (a)(18) and (a)(19) are included for consistency but are not part of the aeroplane performance section.</p>
comment	<p>711 comment by: ACI Europe</p> <p>Can page 87 of the regulation be interpreted, that when a regional airport is temporarily closed outside regular traffic hours and runway maintenance is not active, this airport would publish a SNOWTAM with D)- and G) elements reported as ‘NR’? Note: It is dangerous, if pilots are planning a flight, and old outdated runway information is available.</p> <p><u>Example:</u> A regional airport has two 30 minutes regular traffic periods twice a day: 13:00-10:30 (UTC) and 21:00-21:30 (UTC). ATC nor maintenance are not present from 13:30 (UTC) to 20:00 (UTC). Is it correct to publish SNOWTAM as follows? EADD</p> <p>Please calrify if a SNOTAM can be cancelled / time limited in the new format?</p>
response	<p>Noted</p>



As it is understood, this is a standard practice; therefore, the information is of permanent nature. In this case, it is more appropriate to disseminate this information through the AIP.

comment	735	comment by: SAS
	Supported	
response	Noted	
	EASA would like to thank you for your support regarding the proposed changes.	

comment	968	comment by: Rafael Pecos
	<ol style="list-style-type: none"> 1. When the 3 thirds of the RWY would have the same 3 RWYCC it must be permitted to report it as a hole RWY condition, considering ATCO-pilot communications and ATIS broadcasting and fields length of D-ATIS. 2. In those cases when RCR information should be only disseminated via ATS services, the rule should permit that it is enough to inform the crew with RWYCC information; except if the crew request for the complete RCR information. 3. In those cases when RCR information is disseminated via ATS services, and the airport has Voice-ATIS and D-ATIS, the rule should allow different messages: 3.1. Voice ATIS disseminates only RWYCC (in calculation performance section) and situational awareness section; and 3.2. D-ATIS disseminates the complete RCR information. 4. In those cases when RCR information is disseminated by ATS services, and the only available resource is the radiofrequency operated by the ATCO, the rule should allow that in the calculation performance section just be reported the RWYCC, except if the crew request more detailed information. 	
response	Not accepted	
	The objective is to maintain a standardised method of reporting.	

comment	980	comment by: Swedish Transport Agency
	Supported.	
response	Noted	
	EASA would like to thank you for your support regarding the proposed changes.	

comment	981	comment by: Swedish Transport Agency
	<p>APPENDIX 2 SNOWTAM FORMAT</p> <p>CONDITION DESCRIPTION OVER TOTAL RUNWAY LENGTH</p>	



response	<p>COMMENT: ADD Specially prepared winter runway (SPWR)</p> <p>RATIONALE: RATIONALE: Specially prepared winter runway is a descriptor used in the RCAM and ADR.OPS.A.065.</p> <p>NOTE: Changes to the NOTAM Format will affect Regulation 2017/373 with associated Annexes. May also affect 965/2012 (Opinion No 2/2019).</p> <p>NOTE: Reference 965/2012 (Opinion No 2/2019). It might be useful to explain that pilots will receive the content of the RCR as a SNOWTAM for preflight planning and through the ATIS or by Voice for operational consideration (last minute update for take-off performance calculations and for landing performance at the time of landing calculations, AMC1 CAT.OP.MPA.300(a) Approach and landing conditions — aeroplanes.</p>
response	Accepted
comment	<p>1006 comment by: <i>Danish Transport, Construction and Housing Authority</i></p> <p>Comment to (a): The conditions types “CHEMICALLY TREATED” and “LOOSE SAND” are listed along with the standardized terms to be used in the aeroplane performance section of the RCR and SNOWTAM item G). Since these two terms/types are NOT to be used in the Aeroplane performance section among the rest of the runway surface condition descriptors, but rather in the Situational awareness section of the RCR and SNOWTAM (using items K) and L)) this should be indicated much clearer in this text. Reporting should be standardized globally and follow ICAO for safety reasons.</p> <p>Comment to (d): Elsewhere in the NPA and in the definition of the SNOWTAM format, it is allowed under certain circumstances to report friction values. It is suggested to either disallow completely the reporting of friction values OR allow the reporting under certain circumstances in BOTH the RCR and SNOWTAM formats. Reporting should be standardized globally and follow ICAO for safety reasons.</p>
response	<p>The comment on point (a) is accepted. GM is added to clarify that items (a)(18) and (a)(19) are reported in the situational awareness section.</p> <p>The comment on point (d) is accepted and Item S in the SNOWTAM Form has been revised.</p>
comment	<p>1044 comment by: <i>Fraport AG</i></p> <p>Situational awareness section: in SNOWTAM message string, is it mandatory to respect the order of element as per reference letters (elements from I... to ...T)? Inside SNOWTAM situational awareness section the referred order of elements jump back and forth between logical airport areas: runway (RWY), taxiway (TWY) and apron (APRON). This leads to unnecessary repetition of area designators in the beginning of each element. This also leads to confusing structure of the message string.</p> <p>It would be clearer and shorter to publish the situational awareness message string in such a manner, that in the beginning of each logical area would have fixed string</p>

	<p>representing area type, space and area designator. Information elements for each logical area would be published in following order (area colours added for demonstration purposes):</p> <ul style="list-style-type: none"> - Runway specific elements: I), J), K), L), M), O), S), T) - Taxiway specific elements: N), P), T) - Apron specific elements: R), T)
response	<p>Not accepted</p> <p>The order of the presentation of information in the SNOWTAM is standardised to allow pilots to interpret the information in a consistent way, irrespective of the aerodrome or the State they are flying. Any change in the order may lead to misinterpretation, which could create a safety issue.</p>

comment	<p>1358</p> <p>comment by: <i>Wideroe Flyveselskap AS</i></p> <p>Supported.</p>
response	<p>Noted</p> <p>EASA would like to thank you for your support regarding the proposed changes.</p>

comment	<p>1399</p> <p>comment by: <i>European Transport Workers Federation - ETF</i></p> <table border="1" style="width: 100%;"> <tr> <td style="width: 50%; vertical-align: top;"> <p>Reporting of surface contaminants (RMT.0704) The aerodrome operator shall report to the aeronautical information services and without delay to the air traffic services units on matters of operational significance affecting aircraft and aerodrome operations on the movement area, particularly in respect of the presence of the following:</p> <ul style="list-style-type: none"> (a) water; (b) snow; (c) slush; (d) ice; (e) frost; (f) anti-icing or de-icing liquid chemicals or other contaminants; and (g) snow banks or drifts. (h) FOD on the runway or taxiway </td> <td style="width: 50%; vertical-align: top;"> <p>The ETF thinks it is important for timely information of flight crew that the ATS unit(s) are kept up-to-date without having to wait for formalised reports : an information about the following should be made via radiotelephony as soon as possible so that it is relayed to the pilots.</p> </td> </tr> </table>	<p>Reporting of surface contaminants (RMT.0704) The aerodrome operator shall report to the aeronautical information services and without delay to the air traffic services units on matters of operational significance affecting aircraft and aerodrome operations on the movement area, particularly in respect of the presence of the following:</p> <ul style="list-style-type: none"> (a) water; (b) snow; (c) slush; (d) ice; (e) frost; (f) anti-icing or de-icing liquid chemicals or other contaminants; and (g) snow banks or drifts. (h) FOD on the runway or taxiway 	<p>The ETF thinks it is important for timely information of flight crew that the ATS unit(s) are kept up-to-date without having to wait for formalised reports : an information about the following should be made via radiotelephony as soon as possible so that it is relayed to the pilots.</p>
<p>Reporting of surface contaminants (RMT.0704) The aerodrome operator shall report to the aeronautical information services and without delay to the air traffic services units on matters of operational significance affecting aircraft and aerodrome operations on the movement area, particularly in respect of the presence of the following:</p> <ul style="list-style-type: none"> (a) water; (b) snow; (c) slush; (d) ice; (e) frost; (f) anti-icing or de-icing liquid chemicals or other contaminants; and (g) snow banks or drifts. (h) FOD on the runway or taxiway 	<p>The ETF thinks it is important for timely information of flight crew that the ATS unit(s) are kept up-to-date without having to wait for formalised reports : an information about the following should be made via radiotelephony as soon as possible so that it is relayed to the pilots.</p>		
response	<p>Noted</p>		



	The proposed text is in accordance with ICAO Annex 14. FODs are beyond the scope of the rule.	
comment	1405	comment by: <i>Norwegian Air (Norwegian Air Norway, Norwegian Air International, Norwegian Air UK and Norwegian Air Shuttle)</i>
		Supported.
response		Noted EASA would like to thank you for your support regarding the proposed changes.
comment	1406	comment by: <i>Norwegian Air (Norwegian Air Norway, Norwegian Air International, Norwegian Air UK and Norwegian Air Shuttle)</i>
		ADD Specially prepared winter runway.
response		Accepted
comment	1495	comment by: <i>Atle Vivas</i>
		Supported
response		Noted EASA would like to thank you for your support regarding the proposed changes.
comment	1614	comment by: <i>Ruth (Spanish CAA)</i>
		<u>ADR.OPS.A.065 (a)</u> We have identified a small contradiction between the proposed text and Annex 14, amendment 13B: "Friction measurements shall not be reported" is indicated, but the amendment allows "notification of the data as auxiliary information, except as provided in 2.9.8."
response		Noted Currently there are no criteria established for friction measurement devices. Additionally, friction measurements are not correlated with aeroplane performance data; therefore, reporting them is not considered appropriate.
comment	1737	comment by: <i>UAF (Union des Aéroports Français)</i>
		UAF support ACI E comment#710 and #711



response	Noted
comment	<p>1792 comment by: <i>SinaJobstHAM</i></p> <p>Wir empfehlen einen anderen Einführungszeitraum für das neue SNOWTAM Format. Zum geplanten Datum im November 2020 hat die Wintersaison bereits begonnen und in der laufenden Saison sollte nicht auf ein neues Format umgestellt werden. Besser wäre eine Einführung VOR der Winter-Ops Saison in 2021.</p>
response	Noted
comment	<p>1820 comment by: <i>Copenhagen Airports A/S</i></p> <p>Subject: (d) Friction measurements Proposal: Refrase to : Reporting of measured friction coefficient shall be approved by the Competent Authority. Justification: Reporting friction measurements should be agreed by the Member State (Competent Authority). Friction coefficients should be available (optionel) under the section of situational awareness in the “SNOWTAM”, broadcast on the ATIS or R/T by ATS. As an aerodrome operator we experience a high demand by pilots on receiving friction coefficients. The friction coefficients are values that pilots are familiar with and can be used in overall decision making, especially during a transition period.</p>
response	<p>Noted</p> <p>Friction measurements are not correlated with aeroplane performance data; therefore, measurements are not reported. Furthermore, Item S in GM1 ADR.OPS.A.057(d)(4) has been revised.</p>
comment	<p>1894 comment by: <i>IATA</i></p> <p>IATA / FEDEX comment: Concern over the differences of this provision and the US TALPA.</p>
response	Noted
comment	<p>1943 comment by: <i>European Cockpit Association</i></p> <p>8) SLIPPERY WET ECA's comment: Remove. This should be reported via NOTAM Note that p. 41 (SNOWTAM format) does not include “slippery when wet” or “Specially prepared winter RWY”</p> <p>10) SPECIALLY PREPARED WINTER RUNWAY ECA's comment: Remove. Rationale: See page 57</p>

response	<p>Noted</p> <p>For point (8), a NOTAM is always required when a runway is slippery wet. Nevertheless, in the case where such a NOTAM is in force, RWYCC 3 should be reported for the respective part.</p> <p>For point (10), please see the response to the similar comment.</p>
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ADR.OPS.B.003 Handover of activities

p. 41-42

comment	<p>223 comment by: <i>GdF</i></p> <p>We agree explicitly with this provision.</p>
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response	<p>Noted</p> <p>EASA would like to thank you for your support regarding the proposed changes.</p>
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comment	<p>240 comment by: <i>Gatwick Airport</i></p> <p>Supported</p>
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response	<p>Noted</p> <p>EASA would like to thank you for your support regarding the proposed changes.</p>
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comment	<p>320 comment by: <i>John Hamshare (Heathrow)</i></p> <p>Page 42, new “ADR.OPS.B.016 FOD control programme “shall require organisation” – debated this in RMG – the aerodrome operator can only “request” organisations – you cannot require them – to participate in this programme. (4) the ADR OPR shall... “provide all relevant means necessary” – who is to say what means are necessary? Some airports have more FOD than others and some have no FOD bins – encouraging users to take care of their own FOD. This prescribes providing means. This should be a performance based objective to have little FOD on the airport – howsoever achieved. Leave it.</p>
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response	<p>Not accepted</p> <p>Please refer to paragraph 2.1(a) of the essential requirements for aerodromes (Annex VII to Regulation (EU) 2018/1139). What exactly would be the necessary means is left to the aerodrome operator to decide and demonstrate their adequacy, taking into account the particulars of its aerodrome.</p> <p>With regard to the participation of third parties to the programmes of the aerodrome operator, please refer to the ICAO aerodrome certification manual (ICAO Doc 9774) and the essential requirements for aerodromes (paragraph 2.1.(f) of Annex VII to</p>
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Regulation (EU) 2018/1139. For such cases, the aerodrome operator may always coordinate with its competent authority.

comment

397

comment by: *Federal Ministry of Transport Germany, Aerodrome Department*

ADR.OPS.B.003 Handover of activities (RMT.0703)
 Der Begriff betriebliches Personal (“operational personnel”) kann sehr weitreichend interpretiert/gefasst werden. Auch Personen, die nicht im Sicherheitsbereich eines Flugplatzes tätig sind (Check-In etc.) oder Personen die z.B. Koffer in einer Gepäcksortieranlage umschichten, sind betrieblich tätig. Es ist jedoch nicht sicherheitskritisch, ob in diesen Bereichen eine schriftlich dokumentierte Tätigkeitsübergabe stattfindet. Zudem sollte bewusst sein, dass von dieser Vorgabe nicht nur Personal des Flugplatzbetreibers selbst, sondern auch externe Stellen (z.B. Tankdienstleister, Bodenabfertigungsdienstleister, Cateringunternehmen etc.) je nach Auslegung dieser Regelung betroffen wären. Sowohl für den Flugplatzbetreiber als auch für die überprüfende Behörde ist dies eine nicht zufriedenstellende Situation aufgrund des großen Anwendungs- und Interpretationsspielraumes. Um eine einheitliche Umsetzung zu gewährleisten, ist eine Konkretisierung des Begriffs „operational personnel“ (z.B. RFFS, Personal das Pistenkontrollfahrten durchführt etc.) zwingend erforderlich. Die Definition sollte nur so weit gefasst werden, wie es für die Betriebssicherheit erforderlich ist. Des Weiteren könnte noch berücksichtigt werden, dass die Information bzw. tägliche Einweisung der Beschäftigten zum Teil nicht von Mitarbeiter zu Mitarbeiter (face-to-face) sondern von Vorgesetzten für Gruppen von Mitarbeitern erfolgen kann.

response

Accepted

The text has been amended to clarify the intent of the requirement. In any case, the relevant implementing rule does not specify the way that the handover of activities should take place, but it does require ensuring the provision of the necessary information, while the same approach is followed in the AMC.

comment

605

comment by: *CAA Norway***ADR.OPS.B.003 Handover of activities**

COMMENT: Supported

response

Noted

EASA would like to thank you for your support regarding the proposed changes.

comment

712

comment by: *ACI Europe*

ACI Europe would welcome a clarification if the aerodrome operator’s responsibility relates to handover activities of own staff. Otherwise the term “aerodrome operational staff” might be interpreted as having a (very) broad scope that includes



	<p>all operational staff working at the aerodrome – irrespective if employed by third parties or the aerodrome operator. Revised term: The aerodrome operator shall establish and implement procedures for the handover of aerodrome operational activities contained within ADR.OPS.B.001 between aerodrome operational personnel, to ensure that incoming aerodrome operational personnel are provided with operational information related to their tasks.</p>
response	<p>Partially accepted</p> <p>The intent of the requirement is to ensure that the incoming aerodrome operator’s operational personnel (as opposed to non-operational), receive the necessary briefing. Such personnel, include the so-called operations and maintenance personnel, an expression which is already used in Regulation (EU) No 139/2014 and in the related AMC & GM. Moreover, the proposal does not cover the case of personnel of other organisations (e.g. drivers of groundhandling companies which may be allowed to operate unescorted on the manoeuvring area and may need relevant information).</p> <p>Thus, the proposal may not be accepted, for the additional reason that the proposed deletion does not take into account the need to specify the reason for the handover (provision of information) and to ensure that it actually takes place.</p> <p>The relevant provision, as well as the relevant AMC, have been adopted to elaborate the issue.</p>
comment	<p>736 comment by: SAS</p> <p>Supported</p>
response	<p>Noted</p> <p>EASA would like to thank you for your support regarding the proposed changes.</p>
comment	<p>967 comment by: Aerodrome safety regulation departement</p> <p>There is a need of clarification of the scope of applicability : to who and when is this requirement applicable ?</p>
response	<p>Accepted</p> <p>The text has been amended to clarify the intent of the requirement.</p>
comment	<p>982 comment by: Swedish Transport Agency</p> <p>Supported.</p>
response	<p>Noted</p> <p>EASA would like to thank you for your support regarding the proposed changes.</p>



comment	1010	comment by: Danish Transport, Construction and Housing Authority
	Supported	
response	Noted	
	EASA would like to thank you for your support regarding the proposed changes.	
comment	1462	comment by: F. Ehmoser
	<p>Too detailed, the term “aerodrome operational staff” might be interpreted as having a scope that includes all operational staff working at the aerodrome. Revised term: The aerodrome operator shall establish and implement procedures for the handover of aerodrome operational activities contained within ADR.OPS.B.001 between aerodrome operational personnel, to ensure that incoming aerodrome operational personnel are provided with operational information related to their tasks.</p>	
response	Partially accepted	
	<p>The intent of the requirement is to ensure that the incoming aerodrome operator’s operational personnel (as opposed to non-operational), receive the necessary briefing. Such personnel, include the so-called operations and maintenance personnel, an expression which is already used in Regulation (EU) No 139/2014 and in the related AMC & GM. Moreover, the proposal does not cover the case of personnel of other organisations (e.g. drivers of groundhandling companies which may be allowed to operate unescorted on the manoeuvring area and may need relevant information).</p> <p>Thus, the proposal may not be accepted, for the additional reason that the proposed deletion does not take into account the need to specify the reason for the handover (provision of information) and to ensure that it actually takes place.</p> <p>The relevant provision, as well as the relevant AMC, have been adopted to elaborate the issue.</p>	
comment	1488	comment by: Atle Vivas
	Supported	
response	Noted	
	EASA would like to thank you for your support regarding the proposed changes.	
comment	1738	comment by: UAF (Union des Aéroports Français)
	UAF support ACI E comment#712	



response	Noted Please refer to the reply to comment No 712.
comment	1825 comment by: <i>Groupe ADP</i> Groupe ADP think this point is a good example of the position expressed in comment #1823 above. Apart of the clarification needed (cf. ACI-E comment #712), the real performance based requirement at IR level should only be here: " <i>Aerodrome operational personnel should have the situational and operational awareness needed for their tasks.</i> ", and the rest deleted. Because depending on the size and complexity of the airport, the operations periods and the shift, this could be achieved by handover procedures but it could also be insufficient or not appropriate at all...
response	Partially accepted EASA does not share the view that there is no need to establish procedures for ensuring that incoming personnel are provided with information, while their content and length is not specified. Requiring the personnel to have situational and operational awareness does not ensure that the aerodrome operator will take the necessary actions to ensure this awareness. Both the proposed implementing rule and the related AMC clarify what needs to be done and not how. The text has been amended to enhance clarity. Please refer also to the replies to comments Nos 1823 and 712.

ADR.OPS.B.016 Foreign object debris control programme

p. 42

comment	241 comment by: <i>Gatwick Airport</i> Support
response	Noted EASA would like to thank you for your support regarding the proposed changes.
comment	398 comment by: <i>Federal Ministry of Transport Germany, Aerodrome Department</i> ADR.OPS.B.016 Foreign object debris control programme (RMT.0703) Bezüglich der Untersuchung von FOD wäre es unserer Meinung nach Hinsichtlich gefundener Teile, die von einem Luftfahrzeug selbst stammen könnten, wäre es unseres Erachtens sinnvoll, entsprechende Verfahren zu etablieren (z.B. Verifizierung, Zuordnung zu bestimmtem Luftfahrzeugmuster, sofortige Information betroffener Luftverkehrsgesellschaften etc.), um sicher zu gehen, dass betroffene Luftfahrzeugführer schnellst möglich über etwaige Prüferfordernisse informiert werden.



response	Accepted The text has been amended in the suggested direction.
comment	494 comment by: UK CAA Page No: 42 Paragraph No: ADR.OPS.B.016 Comment: Sub sections (b) (1) to (5) are considered too detailed for IR level Justification: There has always been an overriding principle in the Aerodrome regulations that the IR would be a high level requirement and any specific detail would be AMC or GM.
response	Noted The text has been reviewed and it has been found that the particular provisions are already at the appropriate level, as they simply define the objectives of the procedures that the aerodrome operator needs to develop, as part of the required FOD management programme, as well as the actions that are expected to be performed.
comment	573 comment by: ADV - German Airports Association The proposed text is transposed from non-binding Manuals and should therefore be moved to AMC / GM under ADR.OPS.B.015.
response	Noted Please refer to the content of ICAO State Letter 25 of 2018.
comment	606 comment by: CAA Norway ADR.OPS.B.016 Foreign object debris control programme COMMENT: Supported
response	Noted EASA would like to thank you for your support regarding the proposed changes.
comment	713 comment by: ACI Europe (b) (4) the ADR OPR shall... “provide all relevant means necessary” – who is to say what means are necessary? Some airports have more FOD than others and some have no FOD bins – encouraging users to take care of their own FOD. This prescribes providing means. This should be a performance based objective to have little FOD on the airport – howsoever achieved.

response	<p>Proposed wording: (b)(4) establish and implement procedures for the prompt removal, containment and disposal of FOD, and provide all relevant means necessary;</p> <p>Not accepted</p> <p>Please refer to paragraph 2.1(a) of the essential requirements for aerodromes (Annex VII to Regulation (EU) 2018/1139).</p> <p>What exactly would be the necessary means is left to the aerodrome operator to decide and demonstrate their adequacy, taking into account the particulars of its aerodrome.</p>
comment	<p>737 comment by: SAS</p> <p>Supported</p>
response	<p>Noted</p> <p>EASA would like to thank you for your support regarding the proposed changes.</p>
comment	<p>799 comment by: ENAIRE</p> <ul style="list-style-type: none"> • ADR.OPS.B.016. Nothing regarding FOD programmes. It is advisable to develop regulatory requirements on the robust management of animal control on and around airports, specially to prevent bird strikes. Since a bird strike can result in a FOD situation on the RWY, guidance on the impact on operations and how to proceed would help in harmonising and would increase awareness and ops predictability both for pilots and ATM.
response	<p>Noted</p> <p>The existing provisions of Regulation (EU) No 139/2014 already address the issue of wildlife management. We therefore understand that this comment is a proposal to develop further material regarding wildlife management, which will be further assessed.</p>
comment	<p>923 comment by: ADV - German Airports Association</p> <p>(b) (1)-(5)</p> <p>Too detailed. Move to AMC / GM.</p>
response	<p>Noted</p> <p>The text has been reviewed and it has been found that the particular provisions are already at the appropriate level, as they simply define the objective of the procedures that the aerodrome operator needs to develop, as part of the required</p>



FOD management programme, as well as the actions that are expected to be performed.

comment 984 comment by: Swedish Transport Agency

Supported.

response Noted

EASA would like to thank you for your support regarding the proposed changes.

comment 1011 comment by: Danish Transport, Construction and Housing Authority

Supported

response Noted

EASA would like to thank you for your support regarding the proposed changes.

comment 1359 comment by: Wideroe Flyveselskap AS

Supported.

response Noted

EASA would like to thank you for your support regarding the proposed changes.

comment 1490 comment by: Atle Vivas

Supported

APPENDIX 2 SNOWTAM FORMAT

CONDITION DESCRIPTION OVER TOTAL RUNWAY LENGTH

COMMENT: ADD Specially prepared winter runway (SPWR)

RATIONALE: Specially prepared winter runway is a descriptor used in the RCAM and ADR.OPS.A.065.

NOTE: Changes to the NOTAM Format will affect Regulation 2017/373 with associated Annexes. May also affect 965/2012 (Opinion No 2/2019)

*NOTE: Reference 965/2012 (Opinion No 2/2019). It might be useful to explain that pilots will receive the content of the RCR as a SNOWTAM for preflight planning and through the ATIS or by Voice for operational consideration (last minute update for take-off performance calculations and for landing performance at the time of landing calculations, **AMC1 CAT.OP.MPA.300(a) Approach and landing conditions — aeroplanes***

response Accepted

comment 1795 comment by: SinaJobstHAM



	<p>Grundsätzlich sehen wir die Implementierung eines FOD Programms als sinnvoll an. Die Regelungen sind jedoch zu restriktiv und zu umfangreich. Wir empfehlen als IR eine FOD control programm zu fordern, jedoch dem jeweiligen Airport den Freiraum zu überlassen wie die Umsetzung aussehen soll. Mögliche Umsetzungen könnten im einem GM dargestellt werden. Dopplungen bitten wir grundsätzlich zu vermeiden.</p> <p>Zu Unterpunkt (b)(2): Die Umsetzung der absoluten Formulierung ist nicht immer darstellbar und auch nicht immer zielführend. Wir empfehlen die Formulierung auf "including the identification of its sources <u>if possible</u>" oder "<u>if necessary</u>". Wichtiger ist, dass die Mitarbeiter FOD beseitigen, als den Verursacher zu identifizieren. Sinnvoll ist eine Ursachenforschung z.B. bei einer Häufung von FOD's.</p> <p>Zu Unterpunkt (b)(5): Die Sammlung und Analyse von Daten stellt einen sehr hohen personellen und zeitlichen Aufwand dar, eine mögliche Umsetzung sehen wir als sehr große Herausforderung. In relevanten Fällen wird bereits ermittelt woher ein FOD stammt und entsprechende Maßnahmen getroffen. Die geplanten Regularien erzeugen einen dokumentarischen Mehraufwand.</p>
response	<p>Noted</p> <p>The text has been reviewed and it has been found that the particular provisions are already at the appropriate level, as they simply define the objective of the procedures that the aerodrome operator needs to develop, as part of the required FOD management programme, as well as the actions that are expected to be performed. The identification of the sources of FOD, as well as the analysis of the relevant data, are measures that help in preventing the recurrence.</p>

ADR.OPS.B.025 Operation of vehicles	p. 43
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	<p>comment 207 comment by: Jan Kristensen</p> <p>Why is there no requirement for specific amount of practical training under real winter/snow conditions for personell operating snow removal vehicles? Snow blowers, sweepers, sand and chemical spreaders? Is there any training required for driving those vehicles in groups from 2-6 sweepers for cleaning runways e.g? This ekvipage system is widely used at Oslo airport.</p> <p>What steps are taken to force major airports to train their personell to operate their "winter vehicles" at e.g. Gatwick, Berlin, Istanbul where they shut down the airports for several days due to small snow storms.(lack of equipment and training) And what is the cost for those closings? Billions of Eur and and lot of angry passengers.</p> <p>In my mind this proposal is not taking care of this problems at all.</p>
response	<p>Noted</p>



The proposal already foresees that the training of drivers shall be appropriate for the driver's functions and tasks to be performed, thus covering all cases. The implementation of the training programme is the responsibility of the aerodrome operator, which operates under the oversight of its competent authority.

comment 208 comment by: *Jan Kristensen*

Attachment [#7](#)

<https://www.dailymail.co.uk/travel/article-1335308/UK-snow-Shortage-equipment-blamed-Gatwick-Airports-2-day-closure.html>

response Noted

comment 224 comment by: *GdF*

We agree explicitly with this provision.

response Noted

EASA would like to thank you for your support regarding the proposed changes.

comment 242 comment by: *Gatwick Airport*

No Comment

response Noted

comment 309 comment by: *European Powered Flying Union*

ADR.OPS.B.025
Authorisation of vehicle drivers
p 45/207
(i)(2)

"maintain relevant records": our question: for how long? We propose a limited duration, let's state "5 years".

Rationale
Protection of personal data.

response Noted

Regulation (EU) No 139/2014 already specifies in requirement ADR.OR.D.035 the period that records shall be maintained, while the same requirement addresses the issue of data protection.

comment 532 comment by: *ISAVIA ohf.*



response	<p>Theoretical training and assessments should allow for e-learning environment and online assessments. Many airports are already moving away from classroom facilities.</p> <p>Accepted</p> <p>The proposed rule and relevant AMC have been amended to allow this possibility.</p>
comment	<p>738 comment by: SAS</p> <p>Supported</p>
response	<p>Noted</p> <p>EASA would like to thank you for your support regarding the proposed changes.</p>
comment	<p>969 comment by: <i>Aerodrome safety regulation departement</i></p> <p>point e) : intervalls between training shouldn't be defined at an IR level, this far too demanding and leaves no flexibility to the organisation of the aerodrome operator (same comment as OPS.A.057). we suggest to downgrade this part to a AMC or GM level.</p>
response	<p>Noted</p> <p>The proposed provisions take into account the need to ensure harmonisation of the requirements regarding the authorisation of drivers due to their importance in ensuring runway safety, but also for the reasons elaborated in the rationale of the NPA, including the need to ensure a level playing field, as well as enforceability and capability for standardisation. The necessary flexibility is, where needed, provided to the concerned organisations e.g. by not defining the duration of the training, the possibility for CBT, etc.</p>
comment	<p>1018 comment by: <i>Danish Transport, Construction and Housing Authority</i></p>
response	<p>Noted</p>
comment	<p>1471 comment by: <i>F. Ehmoser</i></p> <p>Definition of "other operational areas" missing</p> <p><i>The term "other operational areas", which is contained in the NPA 2018-14, and which is already contained in Regulation 139/2014, has its basis on the content of essential requirements for aerodromes. To be more precise, the term is met twice in Annex VII of Regulation 2018/1139 (Section 2-Operations and management, point 2.1(d) and (l)). The term is undefined, as it is also undefined in the context of Annex 14 where it is used too.</i></p>



response	<p><i>The term aims to cover all areas which serve an operational purpose (on the “airside”), but which are not part of the manoeuvring area and the apron(s). An example would be the service roads that exist between the terminal buildings and aprons, or the perimeter roads that exist at an aerodrome, or even areas that are used for the parking of vehicles and ground support equipment (GSE).</i></p> <p>Noted</p> <p>The term ‘other operational areas’ has been contained in the previous Basic Regulation since 2008, and has also been part of Regulation (EU) 2018/1139 (Annex VII, Section 2-Operations and management, point 2.1(d) and (l)). It has also been included in Regulation (EU) No 139/2014 without any reported difficulty in its implementation.</p> <p>Given the context where the term is introduced, it is meant to include areas which serve an operational purpose (on the ‘airside’), but which are not part of the manoeuvring area and the apron(s). Example cases would be the service roads that exist between the terminal buildings and aprons, or the perimeter roads that exist at an aerodrome, or even areas that are used for the parking of vehicles and ground support equipment (GSE). Relevant guidance has been added.</p>
comment	<p>1481 comment by: <i>Andreas Herndler, CAA Austria</i></p> <p>It is to be expected that drivers arriving with specialized vehicles (garbage collector, food supplier, tanker...) from outside hold their relevant driving licenses and all relevant special permits (like ADR licenses) when operating for an outside company. If that driver managed to turn up safe and sound at the airport he will surely be capable to be escorted by an airport-authorized vehicle driver.</p>
response	<p>Noted</p> <p>Point (h), to which it is understood that the comment relates, simply sets the conditions for allowing the operation of a vehicle which is driven by a non-authorized driver to operate at an aerodrome. One of these conditions is to have a valid driving licence.</p>
comment	<p>1494 comment by: <i>Atle Vivas</i></p> <p>Supported</p>
response	<p>Noted</p> <p>EASA would like to thank you for your support regarding the proposed changes.</p>
comment	<p>1580 comment by: <i>Avinor AS</i></p> <p>Comment to (f) This could require a disproportionate number of personnel to be nominated.</p>



	<p>Rationale:</p> <p>In some of Avinors airports there are only 8 people employed. It is not possible to comply with the proposed rule without increasing the staff level. On smaller airports, with less than 50 persons with access to the manoeuvring area, it should be allowed that the instructor and assessor is the same person. To secure the same level of safety there should be a syllabus and test for the nominated combined instructor/assessor function.</p>
response	<p>Partially accepted</p> <p>The proposed point (f) is amended and incorporated in ADR.OR.D.017.</p>

ADR.OPS.B.025 Authorisation of vehicle drivers

p. 43-47

comment	<p>20 comment by: <i>Aerodrome safety regulation departement</i></p> <p>Point d) precises that if the aerodrome operator allows organisations operating on the apron to provide driving training to their employees, this transfer will be subject to prior approval of the competent authority. We don't understand why this matter should be subject to approbation of the authority when other activities may be sub-contracted without approbation of the competent authority as long as this subcontractation has no impact on the terms of the certificate nor the manual or procedures. Moreover, this process could be very demanding for the CAA espacially regarding the oversight of big structures on with no obvious benefits.</p> <p>Point e) should remain in generic requirements in the D.017 and at an AMC level.</p> <p>Point i) is very demanding for the aerodrome operator regarding the personnel of other organisations operating at the aerodrome in particular at aerodromes with heavy traffic. We agree with the objective but we suggest this assessment be done either directly or through arrangements with the employers.</p>
response	<p>Partially accepted</p> <p>The relevant text has been reviewed and amended along with the provisions of ADR.OR.D.017. However, EASA has the view that the frequency of training should remain at this level, for the reasons explained in the rationale of the proposal. Point I has been amended.</p>
comment	<p>206 comment by: <i>Jan Loncke</i></p> <p>typos in (f) of ADR.OPS.B.025 (f)</p> <p>1) The text should read : "(f) The training foreseen ..."</p> <p>2) What is meant by (d)(2);(3) ? The (3) in (d) is unclear to me.</p>
response	<p>Accepted</p> <p>The text has been amended.</p>



comment	<p>212 comment by: skyguide Compliance Management</p> <p>ADR.OPS.B.025 Authorisation of vehicle drivers (f) The raining foreseen in That should rather be "training"...</p>
response	<p>Accepted</p> <p>The text has been amended.</p>
comment	<p>213 comment by: John Hamshare (Heathrow)</p> <p>ADR.OPS.B.025 Authorisation of vehicle drivers (RMT.0703) (a) Except as provided for in (d), the driving of a vehicle on any part of the movement area or other operational areas of an aerodrome shall require an authorisation issued to the driver by the operator of that aerodrome. The driving authorisation shall be issued to a person if:</p> <p>(1) the tasks allocated to the driver involve driving in such areas; (2) the driver holds a valid driving licence, and any other licence required for the operation of specialised vehicles; and (3) the driver has successfully completed a relevant driving training programme and demonstrated their competence in accordance with (b) and, if required, with (c).</p> <p>(e) The aerodrome operator shall ensure that drivers issued with an authorisation in accordance with (a):</p> <p>(1) undergo proficiency checks at intervals not exceeding 24 months since the completion of their initial training; (2) receive recurrent training at intervals not exceeding 24 months since the completion of their initial training;</p> <p>It is felt that the recurrent training frequency should be extended or left to the discretion of the aerodrome operator. 24 months is not in line with UK CAA CAP790 which is considered as 'good practice'. CAP 790 suggests a 3 year recurrent training period for Manoeuvring Area drivers and 5 years for Apron drivers. Increasing the frequency of recurrent driver training will place additional cost and resource burdens on all companies which employ airside drivers. We use recurrent training frequencies of 3 years for A and M drivers with competency/proficiency checks every 24 months. For runway drivers we use a recurrent training frequency of 1 year.</p>
response	<p>Noted</p> <p>The text has been reviewed and has been found that the proposed frequency for recurrent training is appropriate, taking into account its content. Moreover, the aerodrome operator may decrease the frequency of the training intervals if so required.</p>
comment	<p>243 comment by: Gatwick Airport</p>



response	<p>Further review req before commenting. Concerns regarding the practicalities and methods/costs/implications regarding language as detailed in sub-part (c).</p> <p>Noted</p> <p>The text and the AMC has been reviewed and amended.</p>
comment	<p>315 comment by: AEROPORTI DI ROMA</p> <p>Referring to point (b) (ii) <i>competency assessment of the drivers</i> A clarification is needed to determine if a theoretical examination is acceptable to fulfill with the requirement.</p>
response	<p>Noted</p> <p>The relevant text and AMC, which has been updated to clarify the intent of the provisions, describe the process to be followed for the assessment and issuance of the authorisation. The assessment covers both the practical and theoretical part of the process.</p>
comment	<p>321 comment by: John Hamshare (Heathrow)</p> <p>Page 44, ADR.OPS.B.025 (d) The meaning is not clear of “except the manoeuvring area”. Is the intention that the airport cannot permit organisations to provide the training required? Or is this just a carryover of the text used in para (b)?</p> <p>ADR.OPS.B025 (e) The 24 months for recurrent training and proficiency checks does not align with UK CAP790 (R is 1 year, M is 5 years) or ICAO State Letter AN4/27-18/25 July 2018 which says 1 year for runway and 5 years for everywhere else. Why the difference? (g) appears open ended – it doesn’t require the successful completion of the proficiency checks!</p> <p>ADR.OPS.B.026 (a) Doesn’t allow for the use of a handheld radio by the driver – the vehicle does not need to have a radio installed to be issued an “authorisation”.</p> <p>ADR.OPS.B.026 (a)(4) talks about having a transponder. The rationale text on page 48 states this is a recommendation in EAPPRI. The actual recommendation lists a transponder as one example of a technology to improve situational awareness – the recommendation is to improve situational awareness with technology, so it isn’t quite true to say EAPPRI recommends having transponders. “Rec 1.9.1 Improve situational awareness by adopting the use of technologies that enable operational staff on the manoeuvring area to confirm their location in relation to the runway e.g. via GPS with transponder or airport moving maps, visual aids, signs etc.”</p> <p>ADR.OPS.B.026 (a) (4) (ii) Should say “if the aerodrome is equipped with...” It is only useful if the aerodrome has such a system.</p>



response	<p>ADR.OPS.B.026 (c) (ii) should be time limited. As written is open ended and doesn't allow the ADR OPR to make the reduction in vehicles identified in (b). ADR.OPS.B.026 (d)(3) – refers to ADR.OPS.B.080(b)(2) – no such para.</p> <p>Partially accepted</p> <p>The relevant text of point (d) has been deleted and parts of the text are incorporated in the provisions of ADR.OR.D.017. The proposed frequency for recurrent training is appropriate, taking into account its content. Moreover, the aerodrome operator may decrease the frequency of the training intervals if so required.</p> <p>Point (g) has been amended to require successful completion of training and proficiency checks.</p> <p>EASA considers that the provisions of Annex 14 and PANS-ATM referring to radio-equipped vehicles refer to installed radio equipment.</p> <p>Moreover, the vehicle transponder is meant to provide information to the surveillance system, if available at the aerodrome (please also note the relevant safety recommendation of the ANSV, mentioned in the NPA text). The text regarding this specific provision has been amended, to also accommodate the occasional use of authorised vehicles not equipped with a transponder or equivalent.</p> <p>With regard to the comment on the open-ended authorisation, please note that the proposed provisions do not prevent the reduction of the number of the vehicles.</p>
comment	<p>387 comment by: <i>Federal Office of Civil Aviation (FOCA), Switzerland</i></p> <p><i>Comment FOCA on ADR.OPS.B.025 (f): typo</i></p> <p>Proposed new text: (f) The training training foreseen</p>
response	<p>Accepted</p> <p>The text has been amended.</p>
comment	<p>399 comment by: <i>Federal Ministry of Transport Germany, Aerodrome Department</i></p> <p>Der unter Punkt a) (sowie fortfolgend) verwendete Begriff „other operational areas“ sollte näher definiert werden. Es muss zum Ausdruck kommen, dass sich diese auf den Sicherheitsbereich des Flugplatzes beschränken (Relevanz für die Betriebssicherheit). In den bestehenden Vorgaben ist von „airside vehicle driver“ die Rede, was unseres Erachtens diesbezüglich besser passt.</p> <p>Im Gegensatz zu den bisherigen Regularien hinsichtlich der Schulung setzten bzw. die Kollegen der jeweiligen Abteilung erfolgt. Eine praktische Einweisung können dagegen auch die Schulungsbeauftragten des Flugplatzes durchführen. Durch die Anpassung der Vorgaben entsteht</p>

unseres Erachtens eine Unsicherheit, da keine einheitliche Handhabung dieser Einweisung entsteht. Insbesondere bei externen am Flugplatz tätigen Stellen muss gewährleistet sein, dass zu Schulende im Rahmen einer praktischen Einweisung auf alle kritischen und flugplatzspezifischen Punkte hingewiesen werden. Auch eine neutrale und objektive Prüfung der Kandidaten ist durch das on-the-job training nicht gewährleistet. Des Weiteren wären die Überprüfung hinsichtlich Dokumentation und Rückverfolgbarkeit dieser Einweisung für Flugplatzbetreiber sowie die Behörden im Rahmen der Überwachung aufgrund der unterschiedlichen Stellen sehr schwierig und kaum umsetzbar.

Die Umstellung des Begriffs führt zu potenziellen Gefährdungen, daher bitten wir darum, wieder den Begriff „practical training“ zu verwenden.

Zudem sollte auch im praktischen Teil der Einweisung eine Unterscheidung zwischen dem Fahren auf dem Rollfeld und dem Fahren auf dem Vorfeld ersichtlich werden. Insbesondere die weiterführenden Vorgaben in den AMC passen nicht zur in den IR getroffenen Unterscheidung diesbezüglich.

Der Unterschied zwischen „performance assessment“ (b)3)i) und Der Unterschied zwischen „performance assessment“ (b)3)i) und „competency assessment“ (b)3)ii) ist uns nicht klar.

ADR.OR.D.017 sollte entsprechend geändert werden, sodass nur noch die allgemeingültigen Ausbildungsanforderungen enthalten sind. Die spezifischen Ausbildungsanforderungen der einzelnen Betriebsbereiche sind sodann unter die jeweiligen Bereiche in OPS festzulegen. Dadurch wird das Risiko der Wiederholung von Anforderungen in OR und OPS minimiert und somit auch das Risiko unterschiedlicher/abweichender Regelungen.

response

Partially accepted

The term ‘other operational areas’ has been contained in the previous Basic Regulation since 2008, and has also been part of Regulation (EU) 2018/1139 (Annex VII, Section 2-Operations and management, point 2.1(d) and (l)). It has also been included in Regulation (EU) No 139/2014 without any reported difficulty in its implementation. Given the regulatory context where the term is introduced, it is indeed meant to include areas which serve an operational purpose (on the ‘airside’), but which are not part of the manoeuvring area and the apron(s). Relevant guidance has been added.

The term ‘practical training’ is introduced in the text, while a single term is used for the assessment of the trainees to avoid misunderstandings. Moreover, the relevant text and AMC along with ADR.OR.D.017 have been amended, to avoid overlaps and ambiguity on the intent of the provisions.

comment

495

comment by: UK CAA

Page No: 43**Paragraph No:** ADR.OPS.B.025

response	<p>Comment: Sub sections (a) (1) to (3) are considered too detailed for IR level</p> <p>Justification: There has always been an overriding principle in the Aerodrome regulations that the IR would be a high level requirement and any specific detail would be AMC or GM.</p> <p>Noted</p> <p>The proposed text has been reviewed, and where necessary amended, and it is found that it is at the appropriate level for the development of a relevant framework, which ensures the necessary clarity, the required legal certainty and enforceability. Please refer also to the content of ICAO State Letter 25/2018 regarding the proposed amendment of PANS-Aerodromes.</p>
comment	<p>496 comment by: UK CAA</p> <p>Page No: 43</p> <p>Paragraph No: ADR.OPS.B.025</p> <p>Comment: Sub sections (b) (1) to (3) are considered too detailed for IR level</p> <p>Justification: There has always been an overriding principle in the Aerodrome regulations that the IR would be a high level requirement and any specific detail would be AMC or GM.</p>
response	<p>Noted</p> <p>The proposed text has been reviewed, and where necessary amended, and it is found that it is at the appropriate level for the development of a relevant framework, which ensures the necessary clarity, the required legal certainty and enforceability. Please refer also to the content of ICAO State Letter 25/2018 regarding the proposed amendment of PANS-Aerodromes.</p>
comment	<p>497 comment by: UK CAA</p> <p>Page No: 43</p> <p>Paragraph No: ADR.OPS.B.025 (c)</p> <p>Comment: We recommend this IR should specify the use of Aviation English for use on the runway particularly. One Runway, One Frequency, One Language is what Eurocontrol have been teaching.</p> <p>Justification: Use of multiple languages causes confusion and does not allow all pilots to have a complete picture of the operational environment.</p>
response	<p>Partially accepted</p>



The proposal is amended to address the issue of the language. However, the proposed provision deals with the issue of driver authorisation, while the use of frequencies, language spoken over the frequencies in the manoeuvring area are dealt with in a separate provision. In any case, the proposed provisions do not exclude the suggested solution, as this is something that can be agreed with between the parties, when the prerequisites that this comment implies are implemented.

comment

498

comment by: UK CAA

Page No: 44**Paragraph No:** ADR.OPS.B.025**Comment:** Sub sections (e) (1) to (3) are considered too detailed for IR level.**Justification:** There has always been an overriding principle in the Aerodrome regulations that the IR would be a high level requirement and any specific detail would be AMC or GM.

response

Partially accepted

The relevant text has been amended along with the provisions of ADR.OR.D.017. However, it is found that such provisions are at the appropriate level for the development of a relevant framework, which ensures the necessary clarity, the required legal certainty and enforceability.

comment

499

comment by: UK CAA

Page No: 44**Paragraph No:** ADR.OPS.B.025**Comment:** In section (f), we believe the terms 'instructors' and 'assessors' should be removed, this material is AMC only. We recommend the AMC should refer to 'appropriately competent individuals' who can deliver training and proficiency checks.**Justification:** Appropriate terminology

response

Partially accepted

The relevant text has been reviewed and amended along with the provisions of ADR.OR.D.017 to provide for a more flexible approach. Please note that the terms 'instructors' and 'assessors' are used also in other domains, including the aerodrome domain, in ADR.OR.D.017.

comment

505

comment by: UK CAA



response	<p>Page No: 44</p> <p>Paragraph No: ADR.OPS.B.025</p> <p>Comment: We believe sections (g) and (h) should be included as part of section (a)</p> <p>Justification: Section (g) is a general requirement and is best placed in section (a)</p> <p>Noted</p> <p>The relevant text has been reviewed and amended along with the provisions of ADR.OR.D.017. Section (g) is introduced at this position as it follows the issuance of an authorisation and concerns also the conditions that have to be met for the continuation of its validity, while all previous paragraphs concern actions/conditions for the issuance of an authorisation. However, section (h) is an exemption to the overall rule and therefore needs to be separated from the rule itself.</p>
comment	<p>507 comment by: UK CAA</p> <p>Page No: 44</p> <p>Paragraph No: ADR.OPS.B.025</p> <p>Comment: We recommend section (i) should be included as part of section (c)</p> <p>Justification: Section (i) deals with language competency and we believe this is best placed in section (c).</p>
response	<p>Noted</p> <p>The relevant text has been reviewed and amended along with the provisions of ADR.OR.D.017. However, Section (i) is a general one and deals with the requirements of all previous paragraphs and not just with the paragraph dealing with the language competence.</p>
comment	<p>567 comment by: ADV - German Airports Association</p> <p>(e)</p> <p>See Comment on ADR.OPS.A.057 (g)</p>
response	<p>Noted</p>
comment	<p>572 comment by: Belgian CAA</p> <p>point (d), There is no safety or other benefit in prior approval by the CAA as mentioned in point (d) (1). This can be a industry good practice, but should then be added to the GM.</p>

response	<p>Furthermore during oversight on “vehicle control” and "Training programs" the specific vehicle training and overall training program is verified so implicit approval has been given since many years.</p> <p>Accepted</p> <p>The text has been reviewed and amended along with the provisions of ADR.OR.D.017. Please also note that under the provision of Regulation (EU) 139/2014 the term ‘prior approval’ is linked to an ex ante assessment of compliance, which is not the same as the surveillance activities described in the comment.</p>
comment	<p>574 comment by: <i>ADV - German Airports Association</i></p> <p>(b) (3) (i)</p> <p>Revise Text:</p> <p>theoretical, practical and on-the-job training of adequate duration, including performance assessment, at least in the following areas:</p> <p>Rationale:</p> <p>Bisher wurde hinsichtlich der Schulung von Fahrzeugführern der Begriff „practical training“ verwendet. Die neue Begrifflichkeit „on-the-job training“ interpretiert der Flughafen so, dass die praktische Fahrweisung durch evtl. Fachvorgesetzte bzw. Kollegen der jeweiligen Abteilung durchgeführt werden können. Eine praktische Einweisung sollte dagegen von den Schulungsbeauftragten des Flugplatzes durchgeführt werden.</p>
response	<p>Partially accepted</p> <p>Point (f) of the proposed requirement, which has been amended, along with the provisions of ADR.OR.D.017, foresees the use of instructors and assessors for the implementation of the programme. Moreover, point (b) and the relevant AMC have been amended in the suggested direction.</p>
comment	<p>584 comment by: <i>ADV - German Airports Association</i></p> <p>Different requirements for driving on the apron and driving on the maneuvering area exist. This should be clearly pointed out.</p>
response	<p>Accepted</p> <p>The proposed provision already foresees that the training programme needs to ‘be appropriate to the characteristics and operation of the aerodrome, the driver’s functions and tasks to be performed, and the areas of the aerodrome that drivers may be authorised to operate’, while it mentions the two different categories of drivers whose needs have to be covered. The relevant AMC reflect this as well.</p>

comment	607	comment by: CAA Norway
	ADR.OPS.B.025 Authorisation of vehicle drivers	
	COMMENT: Supported	
response	Noted	
	EASA would like to thank you for your support regarding the proposed changes.	
comment	639	comment by: CAA-NL
	ADR.OPS.B.025 – Authorisation of vehicle drivers	
	CAA Netherlands suggests to shift all material from (b) and further on to the level of AMC. The provisions for the driver training programme should be part of the general training provisions of ADR.OR.D.017.	
response	Partially accepted	
	The proposed text has been reviewed, and where necessary amended, along with the provisions of ADR.OR.D.017. It is however found that the provisions are at the appropriate level for the development of a relevant framework, which ensures the necessary clarity, the required legal certainty and enforceability.	
	EASA would like to thank you for sharing your view regarding the structure of rules on training.	
comment	695	comment by: Aena Aeropuertos, S.A.
	* (b) It is not specified if the training program should be given only to internal staff or if external personnel should also be included.	
	* (d) The training in the manoeuvring area should be able to be given by any accredited company and not only the aerodrome operator. In addition, as has been mentioned in other points, we believe that it should be included in point ADR.OR.D.017.	
	* (e) A period of 2 years is set for drivers to receive refresher training or to undergo proficiency check. As talked at the AVSAF meetings, the idea was to do it equivalent to the duration of the AVSEC (3 years), so that the accreditations' renewal could be done at the same time. It is not clear what are included to do in that 2 years: training? exam? Both?	
response	Partially accepted	
	Point (b) addresses drivers as such, without differentiating based on the identity of the employer of the driver; therefore, it is applicable to all drivers, irrespective of their employer. The relevant provisions and AMC, along with the provisions of ADR.OR.D.017, have been amended to clarify the content of such training.	
	Moreover, the text has been reviewed and has been found that the proposed frequency for recurrent training is appropriate, taking into account its content.	



EASA would like to thank you for sharing your view regarding the structure of rules on training.

comment 704

comment by: *Irish Aviation Authority*

The proficiency and recurrent training check intervals noted as not exceeding 24mths conflicts with the existing GM1.ADR.OR.D.017 (a);(b) which states that recurrent training intervals shall not exceed 12mths since their initial training undertaken

This requires review and consistency across both the existing IR and its implementation and proposed new IRs / AMCs and GM.

It also provides more detail with regard to the authorisation of third party organisations at an aerodrome, to provide general airside driving / safety awareness, at part (d):

“The aerodrome operator may permit organisations operating or providing services at the aerodrome to provide the training required in (b) to their employees operating on the apron or other operational areas, except the manoeuvring area, subject to: (1) the prior approval of the Competent Authority; and (2) continuous compliance of the organisation concerned with the applicable requirements, and the training being delivered in accordance with the driving training programme and procedures established by the aerodrome operator.”

Whilst this is appropriate in terms of legislating for the actual organisation of airside training across Europe, the requirement for Competent Authorities to provide initial prior approval and then potentially ongoing oversight of these arrangements, reinforces the requirement to have a standardised and clear approach to the periods of validity and duration of initial and recurrent training, a clear delineation and understanding of proficiency checks within the overall training cycle and the requirements in relation to the appropriate utilisation of instructors and assessors clarified at the outset. We would encourage EASA to therefore review ADR.OR.D.017 – Training and Proficiency Check Programmes and to use that as a basis to drive all other training requirements and standards throughout related IRs / AMCs and GM.

response Accepted

The relevant provisions, along with the provisions of ADR.OR.D.017 have been reviewed and where necessary amended to improve readability and clarity. EASA would like to thank you for sharing your view regarding the structure of rules on training.

comment 714

comment by: *Irish Aviation Authority*



response	<p>Typographical issues in part (f) Training is misspelt and reference to d(3) which does not appear to exist</p> <p>Accepted</p> <p>The text has been amended.</p>
comment	<p>715 comment by: ACI Europe</p> <p><u>General Point:</u> This IR is too detailed and should be at AMC/GM level.</p> <p>(a) Points 1, 2, 3 should be at AMC level (b) 1, 2 should be at AMC level; (b)(3)(ii) clarification should be provided if a theoretical test and/or computer based training/test is sufficient to meet the requirement; (d)The meaning is not clear of “except the manoeuvring area”. Is the intention that the airport cannot permit organisations to provide the training required? Or is this just a carryover of the text used in para (b)? In ACI's view the airport should set the standard for training and third party trainers can deliver the training and issue permits. There are many large airlines which train their own staff, following the training material provided by the airport. (e) The 24 months for recurrent training and proficiency checks does not align with some local provisions (e.g. UK CAP790 (R is 1 year, M is 5 years) or ICAO State Letter AN4/27-18/25 July 2018 which says 1 year for runway and 5 years for everywhere else. Why the difference? (g) appears open ended – it should link to the successful completion of the proficiency checks. (h) there is no need for “temporary permit” if the driver is under escort – there is no need for a permit.</p>
response	<p>Partially accepted</p> <p>The proposed text and AMC has been reviewed, and where necessary amended, along with the provisions of ADR.OR.D.017. However, it is found that it is at the appropriate level for the development of a relevant framework, which ensures the necessary clarity, the required legal certainty and enforceability. Moreover, EASA considers that the proposed frequency for recurrent training is appropriate, taking into account its content. The means to test (e.g. CBT) competence need not be at rule level, in order to ensure flexibility, while relevant amendments have been made in this regard to clarify this issue. The text in point (g) has been modified to address the need for the successful completion of recurrent training as well as proficiency checks.</p> <p>Please note that the notion of the ‘temporary permit’ is an exemption to the general requirement for drivers to be trained, and a means to control the movement of people, vehicles and drivers that need to temporarily operate at an aerodrome.</p>
comment	<p>716 comment by: ACI Europe</p>



From ACI Europe’s perspective the current wording is too restrictive as assessments and proficiency checks shall be conducted (only) by assessors which would be disproportionate especially for small airports with very few staff. There is a reference to (b)(3)(i) that explicitly mentions theoretical training. A theoretical training might be concluded through Computer Based Training/Assessment and does not necessarily need a specially qualified assessor. Hence, ACI Europe proposes to rephrase the section as follows:

(f) The training foreseen in (b)(3) and (d)(2);(3) shall be provided by instructors, and the assessments and proficiency checks foreseen in (b)(3), (c) and (e)(1) shall be conducted in a manner that allows for an objective assessment.

Editorial Comment: Point (f) mentions the word ‘raining’; this should be replaced by the word ‘training’

response Partially accepted

The text of point (f) as well as the relevant AMC have been amended, along with the provisions of ADR.OR.D.017, in a manner that allows more options to be implemented, while the typo has been corrected.

comment 739 comment by: SAS

Supported

response Noted

EASA would like to thank you for your support regarding the proposed changes.

comment 800 comment by: ENAIRE

- **ADR.OPS.B.025 Authorisation of vehicle drivers.** Development of minimum phraseology guidelines for drivers is required, and should be harmonised with ATM phraseology.

response Noted

The proposed provisions already foresee the provision of training for vehicle drivers in the use of standard phraseology and that communication with the ATS units shall be conducted in accordance with Section 14 of the SERA Regulation, which in SERA.14001 foresees the use of standardised phraseology in all situations for which it has been specified.

EASA will however evaluate further the comment to consider the need for the development and provision of such guidelines.

comment 808 comment by: Assaeroporti - Associazione Italiana Gestori Aeroporti

NPA Content:



(b) The aerodrome operator shall establish and ensure the implementation of a driving training programme for drivers operating on the apron or other operational areas, except the manoeuvring area, and for drivers operating on the manoeuvring area. The training programme shall:

3) include:

(i) theoretical and on-the-job training of adequate duration, including performance assessment, at least in the following areas:
....omissis...

(ii) competency assessment of the drivers

Comment:
A clarification is needed to determine if a theoretical examination is acceptable to fulfill with the requirement.

response Noted

The relevant text, along with the provisions of ADR.OR.D.017, have been amended to provide more clarity. A theoretical assessment is not considered suitable for practical training. The relevant AMC, which has been updated, describes the process to be followed for the assessment and issuance of the authorisation.

comment 942 comment by: *ADV - German Airports Association*

(i) (1) (i)

The intention of a temporary permit is not clear. What does "temporary" mean?

response Noted

The proposal intends to satisfy the need to allow a driver who does not hold an authorisation, to operate, for a limited period of time, a vehicle in certain areas of the aerodrome. The issue is further clarified in the proposed associated guidance.

comment 958 comment by: *Airside safety*

daa raises concerns as to the practical delivery of recurrent proficiency checks for vehicle driving. Under the current regime drivers are required to hold a valid National driver licence and undergo annual Apron / Manoeuvring safety recurrent training (as required).

response Noted

The proposed rules contain similar requirements regarding the delivery of recurrent training and the holding of a driver's licence. The proposed provisions set the maximum permissible period for such training, while an aerodrome operator may adopt more frequent intervals, if it so decides.

comment 965 comment by: *Airside safety*



	<p>daa seeks clarity regarding the requirement for the aerodrome operator to seek prior approval by the competent authority to;</p> <p>permit organisations operating or providing services at the aerodrome to provide the training required in (b) to their employees operating on the apron or other operational areas, except the manoeuvring area</p>
response	<p>Noted</p> <p>The relevant text has been amended, and a prior approval is not required.</p>
comment	<p>985 comment by: <i>Swedish Transport Agency</i></p> <p>Supported.</p>
response	<p>Noted</p> <p>EASA would like to thank you for your support regarding the proposed changes.</p>
comment	<p>1028 comment by: <i>Danish Transport, Construction and Housing Authority</i></p> <p>ADR.OPS.B.025(f)</p> <p>"The raining foreseen..." should be "The training foreseen..."</p> <p>Otherwise supported.</p>
response	<p>Accepted</p> <p>The text has been amended. EASA would like to thank you for your support regarding the proposed changes.</p>
comment	<p>1057 comment by: <i>Fraport AG</i></p> <p>ADR.OPS.B.025(f)</p> <p>Fraport suggest to ad that the proficiency check can be achieved through the implementation of an appropriate e-learning.</p> <p>Rational: In large organizations the manpower needed for instructors would be disproportionally. So an appropriate e-learning would reduce the manpower to an acceptable level. In cases that the e-learning could not be passed by the applicants, a training by instructors is recommended.</p>
response	<p>Noted</p> <p>The text of the provision has been amended to allow for more options to be implemented. However, e-learning is not considered the same as proficiency check which focuses on the practical demonstration of capabilities.</p>



comment

1364

comment by: *Andreas Herndler, CAA Austria*

Based on the feedback of EASA

The term “other operational areas”, which is contained in the NPA 2018-14, and which is already contained in Regulation 139/2014, has its basis on the content of essential requirements for aerodromes. To be more precise, the term is met twice in Annex VII of Regulation 2018/1139 (Section 2-Operations and management, point 2.1(d) and (l)). The term is undefined, as it is also undefined in the context of Annex 14 where it is used too. The term aims to cover all areas which serve an operational purpose (on the “airside”), but which are not part of the manoeuvring area and the apron(s). An example would be the service roads that exist between the terminal buildings and aprons, or the perimeter roads that exist at an aerodrome, or even areas that are used for the parking of vehicles and ground support equipment (GSE).

the proposed amendment would cause unreasonably high costs regarding staff. Advertisements for new staff, stating the specialized license as a prerequisite, reveal fewer and fewer suited people. In opposition, the airport cannot provide every new staff member with the need for specialized licenses with training from a facility outside the airport. As many specialized vehicles are not operated outside the perimeter of the airport the airport authority views internal training and internal driving authorization of specialized vehicles as a practicable plan of action.

Therefore following adjustments are suggested:

(a) Except as provided for in (d), the driving of a vehicle on any part of the movement area or other operational areas of an aerodrome shall require an authorization issued to the driver by the operator of that aerodrome. The driving authorization shall be issued to a person if:

- (1) the tasks allocated to the driver involve driving in such areas;
- (2) the driver holds a valid driving license, ~~and any other license required for the operation of specialized vehicles;~~ and
- (3) **the airport operator authorizes operation of specialized vehicles on any part of the movement area or other operational areas of an aerodrome;** and
- (4) the driver has successfully completed a relevant driving training program and demonstrated their competence in accordance with (b) and, if required, with (c).

response

Not accepted

The term ‘other operational areas’ has been contained in the previous Basic Regulation since 2008, and has also been part of Regulation (EU) 2018/1139 (Annex VII, Section 2-Operations and management, point 2.1(d) and (l)). It has also been included in Regulation (EU) 139/2014 without any reported difficulty in its implementation. Given the regulatory context where the term is introduced, it is indeed meant to include areas which serve an operational purpose (on the ‘airside’), but which are not part of the manoeuvring area and the apron(s). Relevant guidance has been added.

Please note that the proposed requirement does not imply the need to introduce an additional, specialised licence apart from the existing driving license, but simply



intends to cover the case of equipment whose use requires specialised training which is not part of the curriculum for acquiring a driving licence, and for which a State may have already a relevant framework.

comment

1365

comment by: *Andreas Herndler, CAA Austria*

On the job training an performance assessments create unreasonably high costs as they take more time than a practice training session and an exam.

Therefore following adjustments are suggested:

(b)(3)(i) theoretical and **practical on-the-job** training of adequate duration, including exam ~~performance assessment~~, at least in the following areas:

response

Partially accepted

The text of the relevant provisions and AMC have been amended, where required, to clarify the intent of the provision. Please also note that EASA considers that, except for the case of theoretical training, an examination is not considered suitable for assessing practical issues.

comment

1366

comment by: *Andreas Herndler, CAA Austria*

It is to be expected that drivers arriving with specialized vehicles (garbage collector, food supplier, tanker...) from outside hold their relevant driving licenses and all relevant special permits (like ADR licenses) when operating for an outside company. If that driver managed to turn up safe and sound at the airport he will surely be capable to be escorted by an airport-authorized vehicle driver.

Therefore following adjustments are suggested:

(h) Notwithstanding (a), the aerodrome operator may permit a person to temporarily drive a vehicle on the movement area or other operational areas if:
~~(1) that person holds a valid driving licence, and any other licence required for the operation of specialised vehicles;~~ and
 (2) that vehicle is escorted by vehicle(s) driven by driver(s) authorised in accordance with (a).

response

Not accepted

Point (h) sets the conditions for allowing the operation of a vehicle which is driven by a non-authorized driver to operate at an aerodrome. One of these conditions is to have a valid driving licence. The fact that the driver arrived at the aerodrome does not mean that he or she is eligible to drive.

comment

1389

comment by: *Graz Airport*

(a) Except as provided for in (d), the driving of a vehicle on any part of the movement area or other operational areas of an aerodrome shall require an authorization issued to the driver by the operator of that aerodrome. The driving authorization shall be issued to a person if:

- (1) the tasks allocated to the driver involve driving in such areas;
- (2) the driver holds a valid driving license, ~~and any other license required for the operation of specialized vehicles;~~ and
- (3) the airport operator authorizes operation of specialized vehicles on any part of the movement area or other operational areas of an aerodrome; and**
- (4) the driver has successfully completed a relevant driving training program and demonstrated their competence in accordance with (b) and, if required, with (c).**

Unreasonably high costs regarding staff. Advertisements for new staff, stating the specialized license as a prerequisite, reveal fewer and fewer suited people. In opposition, the airport cannot provide every new staff member with the need for specialized licenses with training from a facility outside the airport. As many specialized vehicles are not operated outside the perimeter of the airport the airport authority views internal training and internal driving authorization of specialized vehicles as a practicable plan of action.

The term “other operational areas”, which is contained in the NPA 2018-14, and which is already contained in Regulation 139/2014, has its basis on the content of essential requirements for aerodromes. To be more precise, the term is met twice in Annex VII of Regulation 2018/1139 (Section 2-Operations and management, point 2.1(d) and (l)). The term is undefined, as it is also undefined in the context of Annex 14 where it is used too.

The term aims to cover all areas which serve an operational purpose (on the “airside”), but which are not part of the manoeuvring area and the apron(s). An example would be the service roads that exist between the terminal buildings and aprons, or the perimeter roads that exist at an aerodrome, or even areas that are used for the parking of vehicles and ground support equipment (GSE).

(b)(3)(i) theoretical and practical on-the-job training of adequate duration, including exam performance assessment, at least in the following areas:

On the job training an performance assessments create unreasonably high costs as they take more time than a practice training session and an exam.

- (1) undergo proficiency checks at intervals not exceeding ~~60~~ **24** months since the completion of their initial training;
- 2) receive recurrent training at intervals not exceeding ~~60~~ **24**-months since the completion of their initial training; and
- ~~(3) receive refresher training when they are absent from their duties for a period not less than 3 and not more than 12 consecutive months. In case of absence beyond 12 consecutive months, the driver shall undergo initial training.~~



The figures given in the NPA lead to a huge workload regarding training due to heavy seasonal fluctuation of staff. Again, costs would rise if the airport has to keep so many trainers in reserve.

Duration of 24 months is too short. 60 month is used since many years and can be seen as the best practice.

24 month generates high costs. Training facilities not suitable for so many participants.

(3) aerodrome operator does not know the absence times of third party drivers.

□

(h) Notwithstanding (a), the aerodrome operator may permit a person to temporarily drive a vehicle on the movement area or other operational areas if:
 (1) that person holds a valid driving licence, and any other licence required for the operation of specialised vehicles; and
 (21) that vehicle is escorted by vehicle(s) driven by driver(s) authorised in accordance with (a).

It is to be expected that drivers arriving with specialized vehicles (garbage collector, food supplier, tanker...) from outside hold their relevant driving licenses and all relevant special permits (like ADR licenses) when operating for an outside company. If that driver managed to turn up safe and sound at the airport he will surely be capable to be escorted by an airport-authorized vehicle driver.

response Not accepted

Please note that the proposed requirement does not imply the need to introduce an additional, specialised licence apart from the existing driving license, but simply intends to cover the case of equipment whose use requires specialised training which is not part of the curriculum for acquiring a driving licence, and for which a State may have already a relevant framework.

The term 'other operational areas' has been contained in the previous Basic Regulation since 2008, and has also been part of Regulation (EU) 2018/1139 (Annex VII, Section 2-Operations and management, point 2.1(d) and (l)). It has also been included in Regulation (EU) 139/2014 without any reported difficulty in its implementation. Given the regulatory context where the term is introduced, it is indeed meant to include areas which serve an operational purpose (on the 'airside'), but which are not part of the manoeuvring area and the apron(s). Relevant guidance has been added.

Moreover, the recurrent training and proficiency checks need to take place at intervals such that they ensure the continuing currency of the drivers. EASA considers that the proposed 60-month period is not appropriate.

With regard to point (h), please note that it sets the conditions for allowing the operation of a vehicle which is driven by a non-authorised driver to operate at an



aerodrome. One of these conditions is to have a valid driving licence. The fact that the driver arrived at the aerodrome does not mean that he or she is eligible to drive.

comment

1400

comment by: *European Transport Workers Federation - ETF*

About : ADR.OPS.B.025 Authorization of vehicle drivers

(e) The aerodrome operator shall ensure that drivers issued with an authorisation in accordance with (a): (1) undergo proficiency checks at intervals not exceeding 24 months since the completion of their initial training; (2) receive recurrent training at intervals not exceeding 24 months since the completion of their initial training; and (3) receive refresher training when they are absent from their duties for a period not less than 3 and not more than 12 consecutive months. In case of absence beyond 12 consecutive months, the driver shall undergo initial training.

Comment : Paragraph (e) seems over prescriptive (recurrent training + checks every 2 years) especially when the daily tasks lead people on the runway etc...

Is it still possible to deliver a training/authorization valid for a combination of aerodromes ?

This should still be possible because it is needed notably for staff maintaining the Radionavigation equipments (ILS, VOR, Gonio,...)

response

Noted

There is a need to ensure that drivers operating on the movement area unescorted maintain their currency at a theoretical level, while they periodically demonstrate their competence in practical terms. The authorisation of a driver to operate unescorted at a given aerodrome is also a function of the local aerodrome environment, which is something that may not be covered by a generic training.

comment

1411

comment by: *Ruth (Spanish CAA)*

ADR.OPS.B.025 (a)

The text "and any other licence required for the operation of specialised vehicles" might not be clear enough. GM will be needed to clarify what kind of other licenses are being referred, specially specifying if these text refers or not to EU specific driving licences C and D.

response

Noted

Please note that the proposed requirement does not imply the need to introduce an additional, specialised licence apart from the existing driving licence, but simply



intends to cover the case of equipment whose use requires specialised training which is not part of the curriculum for acquiring a driving licence, and for which a State may have already a relevant framework.

comment

1413

comment by: Ruth (Spanish CAA)

ADR.OPS.B.025 (e)

Depending on the complexity of the aerodrome layout and the complexity of operations, 3 months for receiving refresher training can be not necessary and in reality it will mean 1 course for 1 driver whom has being properly trained and being working for many years.

We suggest the text "(3) receive refresher training when they are absent from their duties for a period of less than 12. Depending on the complexity of the aerodrome layout, the complexity of operations, and the changes undertaken during the period of absence, the aerodrome operator should specify the need of this training and the scope of these refresher training."

response

Partially accepted

The proposed text may result in the need to provide refresher training irrespective of the minimum absence, which needs to be defined in order to avoid arbitrary approaches on the same issue. Please also note that the training (including this type of training), is always meant to be relevant to the functions/duties of the individual and the complexity of the aerodrome. However, the content of the refresher training is defined in the relevant AMC which allows relevant proportionality to be applied, and which has been further amended to reflect this approach.

comment

1425

comment by: CAA Finland

Point (f) word *raining* should be replaced by word *training*.

response

Accepted

The text has been amended.

comment

1473

comment by: F. Ehmoser

(f) raining -> training

response

Accepted

The text has been amended.

comment

1477

comment by: Brussels Airport Company

This IR should be at GM level due to the level of detail provided.



response Noted

The proposed text has been reviewed and it is found that it is at the appropriate level for the development of a relevant framework, which ensures the necessary clarity, the required legal certainty and enforceability. Please also refer to the content of ICAO State Letter 25/2018 regarding the proposed amendment of PANS-Aerodromes.

comment 1479 comment by: *Andreas Herndler, CAA Austria*

The figures given in the NPA lead to a huge workload regarding training due to heavy seasonal fluctuation of staff. Again, costs would rise if the airport has to keep so many trainers in reserve. Duration of 24 months is too short. 60 month is used since many years and can be seen as the best practice. 24 month generates high costs. Training facilities not suitable for so many participants. In respect of (3) aerodrome operator do not know the absence times of third party drivers.

Therefore following adjustments are suggested:

(e) The aerodrome operator shall ensure that drivers issued with an authorization in accordance with (a):

(1) undergo proficiency checks at intervals not exceeding ~~24~~ **60** months since the completion of their initial training;

(2) receive recurrent training at intervals not exceeding ~~24~~ **60** months since the completion of their initial training; and

~~(3) receive refresher training when they are absent from their duties for a period not less than 3 and not more than 12 consecutive months. In case of absence beyond 12 consecutive months, the driver shall undergo initial training.~~

response Not accepted

The recurrent training and proficiency checks need to take place at intervals such that they ensure the continuing currency of the drivers. EASA considers that the proposed 60-month period is not appropriate. Moreover, the proposal does not address the need to provide refresher training to cover significant absences from the work environment.

comment 1480 comment by: *F. Ehmoser*

(a) Except as provided for in (d), the driving of a vehicle on any part of the movement area or other operational areas of an aerodrome shall require an authorization issued to the driver by the operator of that aerodrome. The driving authorization shall be issued to a person if:

(1) the tasks allocated to the driver involve driving in such areas;

(2) the driver holds a valid driving license, ~~and any other license required for the operation of specialized vehicles;~~ and

(3) the airport operator authorizes operation of specialized vehicles on any part of



	<p>the movement area or other operational areas of an aerodrome; and (4) the driver has successfully completed a relevant driving training program and demonstrated their competence in accordance with (b) and, if required, with (c).</p> <p><i>Unreasonably high costs regarding staff. Advertisements for new staff, stating the specialized license as a prerequisite, reveal fewer and fewer suited people. In opposition, the airport cannot provide every new staff member with the need for specialized licenses with training from a facility outside the airport. As many specialized vehicles are not operated outside the perimeter of the airport the airport authority views internal training and internal driving authorization of specialized vehicles as a practicable plan of action.</i></p>
response	<p>Not accepted</p> <p>Please note that the proposed requirement does not imply the need to introduce an additional, specialised licence apart from the existing driving licence, but simply intends to cover the case of equipment whose use requires specialised training which is not part of the curriculum for acquiring a driving licence, and for which a State may have already a relevant framework.</p>

comment	<p>1484 comment by: <i>Andreas Herndler, CAA Austria</i></p> <p>It is to be expected that drivers arriving with specialized vehicles (garbage collector, food supplier, tanker...) from outside hold their relevant driving licenses and all relevant special permits (like ADR licenses) when operating for an outside company. If that driver managed to turn up safe and sound at the airport he will surely be capable to be escorted by an airport-authorized vehicle driver.</p> <p>Therefore following adjustments are suggested:</p> <p>(h) Notwithstanding (a), the aerodrome operator may permit a person to temporarily drive a vehicle on the movement area or other operational areas if: (1) that person holds a valid driving licence, and any other licence required for the operation of specialised vehicles; and (21) that vehicle is escorted by vehicle(s) driven by driver(s) authorised in accordance with (a).</p>
response	<p>Not accepted</p> <p>Point (h) sets the conditions for allowing the operation of a vehicle which is driven by a non-authorized driver to operate at an aerodrome. One of these conditions is to have a valid driving licence. The fact that the driver arrived at the aerodrome does not necessarily mean that he or she is eligible to drive.</p>

comment	<p>1491 comment by: <i>Atle Vivas</i></p> <p>Supported</p>
response	<p>Noted</p>



EASA would like to thank you for your support regarding the proposed changes.

comment 1492 comment by: F. Ehmoser

(b)(3)(i) theoretical and ~~practical on-the-job~~ training of adequate duration, including ~~exam performance assessment~~, at least in the following areas:

On the job training and performance assessments create unreasonably high costs as they take more time than a practice training session and an exam.

response Partially accepted

The text of point (b) has been amended in the suggested direction, except that EASA considers that an examination is not an appropriate means to establish the competence of a person given the content of the necessary training foreseen in this case.

comment 1500 comment by: F. Ehmoser

(e) The aerodrome operator shall ensure that drivers issued with an authorization in accordance with (a):
 (1) undergo proficiency checks at intervals not exceeding ~~24~~ **60** months since the completion of their initial training;
 (2) receive recurrent training at intervals not exceeding ~~24~~ **60** months since the completion of their initial training; and
 (3) receive refresher training when they are absent from their duties for a period not less than ~~3~~ **12** and not more than ~~12~~ **18** consecutive months. In case of absence beyond ~~12~~ **18** consecutive months, the driver shall undergo initial training.

The figures given in the NPA lead to a huge workload regarding training due to heavy seasonal fluctuation of staff. Again, costs would rise if the airport has to keep so many trainers in reserve.

response Not accepted

The recurrent training and proficiency checks need to take place at intervals such that they ensure the continuing currency of the drivers, so the proposed 60-month period is not considered appropriate.

Moreover, the proposal for the refresher training is not considered appropriate, because it does not adequately cover significant absences from the work environment.

comment 1511 comment by: F. Ehmoser

(1) undergo proficiency checks at intervals not exceeding ~~60~~ **24** months since the completion of their initial training;
 (2) receive recurrent training at intervals not exceeding ~~60~~ **24** months since the completion of their initial training; and



response	<p>(3) receive refresher training when they are absent from their duties for a period not less than 3 and not more than 12 consecutive months. In case of absence beyond 12 consecutive months, the driver shall undergo initial training.</p> <p><i>Duration of 24 months is too short. 60 month is used since many years and can be seen as the best practice. 24 month generates high costs. Training facilities not suitable for so many participants.</i></p> <p><i>(3) aerodrome operator does not know the absence times of third party drivers.</i></p> <p>Not accepted</p> <p>The recurrent training and proficiency checks need to take place at intervals such that they ensure the continuing currency of the drivers, so the proposed 60-month period is not considered appropriate. Moreover, the proposal does not address the need to provide refresher training to cover significant absences from the work environment.</p>
comment	<p>1518 comment by: F. Ehmoser</p> <p>(h) Notwithstanding (a), the aerodrome operator may permit a person to temporarily drive a vehicle on the movement area or other operational areas if: (1) that person holds a valid driving licence, and any other licence required for the operation of specialised vehicles; and (2) that vehicle is escorted by vehicle(s) driven by driver(s) authorised in accordance with (a).</p> <p><i>It is to be expected that drivers arriving with specialized vehicles (garbage collector, food supplier, tanker...) from outside hold their relevant driving licenses and all relevant special permits (like ADR licenses) when operating for an outside company. If that driver managed to turn up safe and sound at the airport he will surely be capable to be escorted by an airport-authorized vehicle driver.</i></p>
response	<p>Not accepted</p> <p>Point (h) sets the conditions for allowing the operation of a vehicle which is driven by a non-authorized driver to operate at an aerodrome. One of these conditions is to have a valid driving licence. The fact that the driver arrived at the aerodrome does not necessarily mean that he or she is eligible to drive.</p>
comment	<p>1612 comment by: Riga International Airport</p> <p>The requirements ADR.OPS.B.025 (a) and (b) require discrimination between drivers authorised to drive on the manoeuvring area and drivers authorised to drive on other operational areas while the definition for the manoeuvring area is quite ambiguous with respect to protected areas mentioned in the “European Action Plan for the Prevention of Runway Incursions” containing grassy areas and ILS critical and sensitive areas. Thus it is desirable to clarify if the requirements for drivers operating on the manoeuvring area shall apply to drivers operating outside of taxiway strip,</p>



response	<p>runway protected area, RESAs, ILS protected areas but operating within a remote portion the runway strip.</p> <p>Noted</p> <p>Please refer to the relevant definitions contained in Regulation (EU) 139/2014. With regard to the term ‘other operational areas’ has been contained in the previous Basic Regulation since 2008, and has also been part of Regulation (EU) 2018/1139 (Annex VII, Section 2-Operations and management, point 2.1(d) and (l)). It has also been included in Regulation (EU No 139/2014 without any reported difficulty in its implementation. Given the regulatory context where the term is introduced, it is indeed meant to include areas which serve an operational purpose (on the ‘airside’), but which are not part of the manoeuvring area and the apron(s). Relevant guidance has been added.</p>
comment	<p>1615 comment by: <i>Riga International Airport</i></p> <p>1. It is desirable to clarify the ADR.OPS.B.025 (c) requirement as to whether it should include just the language whose proficiency is compulsory for the authorisation to drive on the respective portion of the manoeuvring area or all languages used at the aerodrome for radio communication.</p> <p>2. It is desirable to amend the ADR.OPS.B.025 (g) requirement so that it becomes impossible to infer that an aerodrome operator is imposed with an obligation to ensure real-time monitoring for the eventual event when the validity of the driver’s state driving licence is suspended.</p> <p>3. It is desirable to clarify the ADR.OPS.B.025 (i)(1)(i) requirement as to whether it should include all languages or just the language whose proficiency is compulsory for the authorisation to drive on the respective portion of the manoeuvring area.</p>
response	<p>Partially accepted</p> <p>The commented paragraph, which has been amended, concerns only the drivers operating on the manoeuvring area and need to communicate with the air traffic services unit. The competence concerns the language or languages used for such purposes. It is the responsibility of the aerodrome operator to establish a system to ensure compliance with the relevant provisions.</p>
comment	<p>1630 comment by: <i>Ruth (Spanish CAA)</i></p> <p><u>ADR.OPS.B.025 (c)</u></p> <p>We are concerned about the social and economic impact that establishing a level of linguistic competence may have in those cases in which the language used at the aerodrome for radio communication is not the native language of the staff.</p>
response	<p>Noted</p>



In order to ensure safety, it is imperative that the personnel who are allowed to operate on the manoeuvring area, are able to communicate with the ATS at the necessary level.

comment	1739	comment by: <i>UAF (Union des Aéroports Français)</i>
	UAF support ACI E comment#715 and 716	
response	Noted	
	Please refer to the replies to comments Nos 715 and 716.	

comment	1813	comment by: <i>SinaJobstHAM</i>
	zu Unterpunkt (b)(3):	
	Die Formulierung "on-the-job-training" sollte beispielsweise durch "practical training" ersetzt werden. Zum einen ist es im Tagesbetrieb nicht darstellbar, dass alle zu schulenden Personen mit dem Tower Funk-Traning machen. Solch ein Verfahren würde den Funk völlig überlasten und wäre vermutlich mit der DFS nicht vereinbar. Zum anderen werden die Schulungen für Fahrer zentral durch die Schulungsabteilung durchgeführt, inkl. praktischem Fahrtraining. Ein "On-the-job-training" könnte nur dezentral in verschiedenen Fachabteilungen erfolgen. Eine Qualifizierung des schulenden Personals in der Fläche und der administrative Aufwand wären massiv.	
response	Partially accepted	
	The term 'practical training' is introduced. The aerodrome operator has full discretion with regard to the way and by whom the training is to be provided. EASA considers that all persons driving a vehicle on an area where the use of radio is required, need to receive relevant training in the interest of safety.	

comment	1814	comment by: <i>SinaJobstHAM</i>
	Der Detaillierungsgrad dieser Implementing Rule ist unserer Meinung nach wesentlich zu hoch. Auf IR- Ebene sollte unseres Erachtens nur grundsätzliche Fakten geregelt werden und Details als AMC und GM. Wir bitte diesen Paragraphen wesentlich zu entzerren.	
	zu Unterpunkt (d):	
	Wir sehen in der Fahreinweisung durch Dritte/ betroffene Unternehmen an einem Flugplatz ein immenses Sicherheitsrisiko. Das Fahren auf der Bewegungsfläche birgt viele Gefahren und Risiken, sowohl für die Fahrzeugführer, als auch für andere Beteiligte auf dem Flugplatz wie z.B. Luftfahrzeuge. Wir plädieren hier vor allem auch im Hinblick auf die Sicherheit für eine zentrale und qualifizierte Schulung durch den Flughafenbetreiber. Das gewährt einen einheitlichen Schulungsumfang, das Einfließen und die Kommunikation von Änderungen und Neuerungen, sowie eine überprüfbare Dokumentation.	



	<p>Zu Unterpunkt (e)(3): Aus unserer Sicht ist eine Wiederholungsschulung alle 5 Jahre ausreichend, es sei denn es gibt wesentliche Änderungen der Schulungsinhalte, dann ist eine kürzere Frist anzusetzen. Die "proficiency checks" und "refresher" bei 3 Monatiger Abwesenheit sollten gestrichen werden. Der sehr hohe personelle und administrative Aufwand stehen nicht im Verhältnis zum Nutzen im Bezug auf Sicherheit.</p> <p>Zu Unterpunkt (i)(1)(i): Wir empfehlen die Sprachkompetenz auf die Phraseologie zu beschränken bzw. das Sprachniveau zu konkretisieren. Eine verhandlungssichere Sprachkompetenz ist beispielsweise nicht erforderlich.</p>
response	<p>Partially accepted</p> <p>The proposed text has been reviewed, and where necessary amended, along with the provision of ADR.OR.D.017. However, it is found that it is at the appropriate level for the development of a relevant framework, which ensures the necessary clarity, the required legal certainty and enforceability.</p> <p>Moreover, the text has been reviewed and has been found that the proposed frequency for recurrent and refresher training as well as proficiency checks is appropriate, taking into account the content of the provisions. The relevant provision and AMC have also been amended to clarify the content of such training.</p> <p>EASA considers that there is an obvious safety need to ensure the language competence of the persons using radio communication when communicating with the ATS unit.</p>
comment	<p>1828 comment by: <i>Groupe ADP</i></p> <p>OPS.B.025 : Authorisation of vehicle drivers, OPS.B.026: Authorisation of vehicles, B027 Operation of vehicles, OPS.C.007 Maintenance of vehicles As far as Ground Handlers vehicles and GSE are concerned by these requirements, there is an inconsistency with 1139/2018 Annex VII Essential requirements for 4/ GROUNDHANDLING SERVICES. Indeed, § 4.1 d) e) and f) detail responsibilities of GH providers in matters of operations, training of drivers, qualification and maintenance program of GSE. GH provider will be submitted to declaration of compliance to these rules. How could it be compatible with an obligation of certification of the airport operator to implement and enforce equivalent rules regarding GH provider's vehicles and GSE ?</p>
response	<p>Noted</p> <p>EASA has reviewed, and where necessary amended, the proposed provisions and is of the opinion that the proposed rules are aligned with the content of the provisions contained in Annex VII to Regulation (EU) 2018/1139.</p>

comment	<p>1840</p> <p style="text-align: right;">comment by: <i>Groupe ADP</i></p> <p>As far as France is concerned, some of the requirements concerning vehicles drivers are relevant of whereas #8 of the 139/2014 Regulation.:</p> <p><i>" (8) Specific services referred to in subpart B of Annex IV (Part ADR.OPS) should be provided at an aerodrome. In some cases these services are not directly provided by the aerodrome operator, but by another organisation or State entity, or combination of both. In such cases the aerodrome operator, being responsible for the operation of the aerodrome, should have arrangements and interfaces with these organisations or entities in place to ensure the provision of services according to the requirements stated in Annex IV. When such arrangements and interfaces are in place the aerodrome operator should be considered as having discharged their responsibility and should not be understood to be directly responsible or liable for any non-compliances by another entity involved in the arrangement, provided that it has complied with all applicable requirements and obligations laid down in this Regulation relevant to its responsibility under the arrangement."</i></p> <p>Implementing some of those measures and enforcing them is in France of the sole responsibility of State authorities (Rôle du Préfet, Arrêté préfectoral de Police). However, regarding OPS.B.025 (a) (2) <i>"the driver holds a valid driving licence ..."</i>, depending on the vehicle and the area concerned, it might not be possible to implement as the French driving licence applies only on engine vehicles circulating on open public roads, which is not the case of movement area.</p>
response	<p>Noted</p> <p>EASA has reviewed, and where necessary amended, the proposed provisions and is of the opinion that the proposed rules are aligned with the content of the provisions contained in Annex VII to Regulation (EU) 2018/1139. Please refer also to the content of ICAO State Letter 25/2018 regarding the proposed amendment of PANS-Aerodromes.</p>

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comment	<p>21</p> <p style="text-align: right;">comment by: <i>Aerodrome safety regulation departement</i></p> <p>Point e) : We suggest to add that when the vehicle shall have access to the manoeuvring area the attribution of the call sign should be done in coordination with the ATS.</p>
response	<p>Accepted</p> <p>The relevant text has been amended as suggested.</p>
comment	<p>211</p> <p style="text-align: right;">comment by: <i>skyguide Compliance Management</i></p> <p>∅</p> <p>ADR.OPS.B.026 Authorisation of vehicles</p> <p><i>(1) is serviceable and fit for the indented operation;</i></p> <p>That should rather be "intended"...</p>



response	Accepted The text has been amended.
comment	216 comment by: <i>GdF</i> To reduce the number of runway-safety-related accidents and serious incidents involving runway incursions, but also other runway-safety-related event all traffic must be aware of each other, so all r/t must be accomplished on one frequency, on which all participants are able to listen to movements of other traffic. E.g. landing aircraft would be able to hear a clearance for cars on the landing runway. Additional, switching between two radios can lead to delayed reaction and head-down time, both of which should be avoided. (3) is equipped with a radio allowing two-way communication on the appropriate ATS-Frequency, if it is intended to be operated on: (i) the manoeuvring area; or (ii) other operational areas where communication with the air traffic services unit or other operational units of the aerodrome is necessary,
response	Partially accepted The intent of the proposal is to have a vehicle equipped with a radio allowing two-way communication, not only with the ATS unit, but with every unit with which such radio communication is required. This is addressed through the relevant AMC. However, the proposed text has been amended to further clarify the issue.
comment	244 comment by: <i>Gatwick Airport</i> Support
response	Noted EASA would like to thank you for your support regarding the proposed changes.
comment	322 comment by: <i>John Hamshare (Heathrow)</i> Page 49 – ADR.OPS.B.027 (b)(3) Vehicles shall give way to other vehicles in accordance with ...local regulations or agreed airport procedures. Not the ATSU! Para (g)(5) says it better than (b)(3). ADR.OPS.B.027 (c) (1) Do not need to establish 2 way comms with ATC – too much RT workload – need to follow locally agreed procedures, yes maintain a continuous listening watch. (c) (2) possibly pre-authorized, or have agreement between ATC and aerodrome operator. (e) (2)(ii) – no need to include RESA. Too onerous and restrictive at some airports, no need. RESA is a place for planes to crash and is very infrequently used for this



	<p>purpose. (EAPPRI could not agree on this so why has EASA chosen to be different?) (rationale page 52) (f) does not make sense at many airports. Add “if applicable”</p>
response	<p>Partially accepted</p> <p>Point (b) is already applicable, as it is contained in the SERA Regulation, which already applies to aerodromes. With regard to point (c), please refer to the content of Annex 14 and that of ICAO State Letter 25/2018 regarding the proposed amendment of Annex 11.</p> <p>With regard to the comment on point (e), EASA considers that a presence of vehicle in the RESA is not in line with the relevant definition and characteristics of the RESA.</p> <p>The text of point (f) has been amended in the suggested direction to make this provision conditional.</p>
comment	<p>401 comment by: <i>Federal Ministry of Transport Germany, Aerodrome Department</i></p> <p>Die neu eingeführte Vorgabe hinsichtlich der Zufahrtsberechtigung von Fahrzeugen sollte sich unseres Erachtens klar auf die Bewegungsfläche des Flugplatzes beschränken. Analog ADR.OPS.B.025 ist unklar, was mit dem Begriff „other operational areas“ gemeint ist.</p> <p>Die unter a)2) geforderten Vorgaben für die Markierung und Beleuchtung von Fahrzeugen sollten sich ausschließlich auf die Fahrzeuge beziehen, die im Rollfeld des Flugplatzes betrieben werden müssen. Fahrzeuge, die ausdrücklich nur auf dem Vorfeld betrieben werden, werden ohnehin ausgenommen (Annex 14 sowie OPS.B.080 (b)(1)). Die Integration des Unterpunktes a)2) unter „Fahrzeugen, die auf der Bewegungsfläche betrieben werden“, ist daher verwirrend. Es sollte unter a)2) klargestellt werden, dass dies nur Fahrzeuge auf dem Rollfeld betrifft. Da dies unter Punkt d)3) beinhaltet ist, kann a)2) gestrichen werden.</p> <p>In a)4) wird gefordert, dass jedes Fahrzeug, welches auf dem Rollfeld betrieben werden muss, auch einen Transponder haben muss. Es gibt jedoch Fahrzeuge, die keinen Transponder haben, jedoch trotzdem auf dem Rollfeld tätig werden müssen. In der Regel erfolgt diese Tätigkeit im Verbund mit einem Fahrzeug, welches mit einem Transponder ausgestattet ist (z.B. flugplatzexterne Prüf- und Messwagen für die Befuerungseinrichtungen). Dies sollte auch weiterhin möglich sein (ein Fahrzeug mit Transponder ist bei Lotsungen ausreichend).</p> <p>Grundsätzlich sollte im Hinblick auf die Überwachung der Verkehrssicherheit ein Hinweis erfolgen, dass z.B. die national festgelegten Überprüfungen im Rahmen der Straßenzulassung (z.B. TÜV-Prüfung)</p>

response

anerkannt werden können. Fahrzeuge die ausschließlich im Sicherheitsbereich eines Flugplatzes betrieben werden, wären davon zwar nicht betroffen (diese müssten weiterhin gesondert betrachtet werden), jedoch würde die Prüfung von einfahrenden Fahrzeugen flugplatzexterner Stellen sowohl für den Flugplatzbetreiber als auch für die Überprüfung durch die Aufsichtsbehörde dadurch erleichtert.

Partially accepted

The term 'other operational areas' has been contained in the previous Basic Regulation since 2008, and has also been part of Regulation (EU) 2018/1139 (Annex VII, Section 2-Operations and management, point 2.1(d) and (l)). It has also been included in Regulation (EU) No 139/2014 without any reported difficulty in its implementation. Given the regulatory context where the term is introduced, it is indeed meant to include areas which serve an operational purpose (on the 'airside'), but which are not part of the manoeuvring area and the apron(s). Relevant guidance has been added.

Please note that the requirement for vehicles to be marked and lighted applies to all vehicles operating on the movement area as per point (a) of ADR.OPS.B.080. The aerodrome operator **may decide** to exempt vehicles which operate only on the apron from this requirement (under point (b)(1) of ADR.OPS.B.080. Both these points are in line with the provisions of Annex 14. Therefore, the reference made to these two points in the proposed point a)(2) of ADR.OPS.B.026 is in line with Annex 14. Please also note that point (d) deals with vehicles which enter only temporarily the aerodrome area and therefore are not expected to comply with the provisions of this Regulation. However, to further improve readability, the text has been amended by simplifying ADR.OPS.B.080 and transferring the provisions in ADR.OPS.B.026.

With regard to the requirement for the use of equipment, such as a transponder, for surveillance purposes, please note that this requirement applies to vehicles which are intended to be operated on the manoeuvring area. Other vehicles that need to enter the aerodrome and operate in this area, are meant to be escorted by the vehicles which carry the necessary equipment for the surveillance purposes of the SMGCS. However, the text has been amended to also accommodate the occasional operation of vehicles which, although they normally operate within the aerodrome, are not fitted with such equipment, just like the case of vehicles which are not equipped with a radio.

Please note that the existing provisions do not affect any of the existing provisions regarding road safety, which of course continue to apply, given that the proposed measures concern only certain, limited aspects (e.g. leakage, possible FOD source, etc.) which are necessary to be considered for ensuring aviation safety.

comment

509

comment by: UK CAA

Page No: 47

response	<p>Paragraph No: ADR.OPS.B.026</p> <p>Comment: Sub sections (a) (1) to (4) are considered too detailed for IR level</p> <p>Justification: There has always been an overriding principle in the Aerodrome regulations that the IR would be a high level requirement and any specific detail would be AMC or GM.</p> <hr/> <p>Noted</p> <p>The proposed text has been reviewed, and where necessary amended, and it is found that it is at the appropriate level for the transposition of the relevant ICAO SARPs and PANS provisions, and for the development of a relevant framework which ensures the necessary clarity, the required legal certainty and enforceability.</p>
comment	<p>510 comment by: UK CAA</p> <p>Page No: 47</p> <p>Paragraph No: <u>ADR.OPS.B.026</u></p> <p>Comment: With regard to sub-section (a) (4) (i) and (ii) relating to transponders in vehicles, we question whether a RIA been carried out for this proposed requirement.</p> <p>Justification: The carriage of transponders on manoeuvring area vehicles, whilst being a positive safety benefit, could be costly across Europe as many hundreds or possibly thousands of vehicles would need to be equipped. Therefore, we suggest this should not be at IR level.</p>
response	<p>Partially accepted</p> <p>Section 4 of the NPA contains information about the impact assessment. The proposed provision concerns only the aerodromes which are equipped with a surface movement guidance and control system whose operation requires the use of transponders or similar systems by the vehicles. The number of such aerodromes in Europe is known to be limited. Moreover, the requirement does not concern all vehicles, but only those which are operating on the manoeuvring area, a number which is obviously meant to be strictly limited for safety reasons.</p> <p>Therefore, given the magnitude of the investment made for the acquisition of such a surface movement guidance and control system at an aerodrome, the need to ensure the proper operation of such a system (because the system itself was designed to require the use of such equipment), and taking into account the current costs of transponders or similar systems, and the expected safety benefit, EASA has the view that the current provision is at the appropriate level. However, the text has been amended to also accommodate the occasional operation of vehicles which, although they normally operate within the aerodrome, are not fitted with such equipment, just like the case of vehicles which are not equipped with a radio.</p>



comment	<p>511 comment by: UK CAA</p> <p>Page No: 47/48</p> <p>Paragraph No: ADR.OPS.B.026</p> <p>Comment: We recommend sections (c), (d), (e) and (f) should be included as part of section (a) and made into AMC</p> <p>Justification: We believe sections (c) and (d) are general and better placed within section (a). Sections (e) and (f) should be included as AMC</p>
response	<p>Noted</p> <p>The proposed text has been reviewed, and where necessary amended, and it is found that it is at the appropriate level for the transposition of the relevant ICAO SARPs and PANS provisions, and for the development of a relevant framework, which ensures the necessary clarity, the required legal certainty and enforceability.</p>
comment	<p>580 comment by: Belgian CAA</p> <p>Point (a) possible conflicting with Belgian national legislation on ground handling and ground handling equipment. This IR could be conflicting with future European rulemaking on ground handling. Point (e) should be done in coordination with the relevant ANSP</p>
response	<p>Partially accepted</p> <p>The proposed text has been reviewed and it is found that it is at the appropriate level for the transposition of the relevant ICAO SARPs and PANS provisions, and for the development of a relevant framework, which ensures the necessary clarity, the required legal certainty and enforceability.</p> <p>The proposed provisions do not concern groundhandling organisations as vehicle operators, but the vehicles themselves, irrespective of their operators (e.g. the aerodrome operator itself and all other organisations such as air operators, Part-145 organisations, etc. which are allowed to operate in the aerodrome areas).</p> <p>Moreover, the proposed provisions are not expected to create any problem to the future rulemaking activities with regard to groundhandling, as they simply address the responsibilities of the aerodrome operator stemming from the essential requirements of Annex VII to the Basic Regulation.</p> <p>Point (e) has been amended for vehicles meant to operate in the manoeuvring area.</p>
comment	<p>588 comment by: ADV - German Airports Association</p> <p>(a) (2)</p>

response	<p>Requirments shall only apply to vehicles on the maneuvering area.</p> <p>Noted</p> <p>Please refer to the content of ADR.OPS.B.080. Please also note that the requirement for vehicles to be marked and lighted applies to all vehicles operating on the movement area as per point (a) of ADR.OPS.B.080. The aerodrome operator may decide to exempt vehicles which operate only on the apron from this requirement (under point (b)(1) of ADR.OPS.B.080). Both these points are in line with the provisions of Annex 14. Therefore, the reference made to these two points in the proposed point (a)(2) of ADR.OPS.B.026 is in line with Annex 14. However, to further improve readability, the text has been amended by simplifying ADR.OPS.B.080 and transferring the provisions in ADR.OPS.B.026. Please also note that point (d) deals with vehicles which enter only temporarily the aerodrome area and therefore are not expected to comply with the provisions of this Regulation.</p>
comment	<p>608 comment by: CAA Norway</p> <p>ADR.OPS.B.026 Authorisation of vehicles</p> <p>COMMENT: Supported</p>
response	<p>Noted</p> <p>EASA would like to thank you for your support regarding the proposed changes.</p>
comment	<p>641 comment by: CAA-NL</p> <p>ADR.OPS.B.026 – Authorisation of vehicles</p> <p>The structure of the implementing rule is a bit confusing.</p> <p>CAA Netherlands proposes to include an exception for the transponder in (a)(4) like the one in (a)(3) regarding the requirement for a radio allowing two-way communication. If EASA has the opinion that this is already covered in (d), CAA Netherlands suggests to make this more generic: is escorted by (an)other vehicle(s) suitable equipped in accordance with (a).</p> <p>The use of the wording transponder is not the correct wording. The current vehicle beacons for A-SMGCS only performs ADS-B and do not transpond.</p>
response	<p>Partially accepted</p> <p>The text regarding the use of transponder has been amended, to become technology-neutral. The text has been reviewed and where necessary amended, to improve readability and to differentiate between the case of vehicles which normally operate at the aerodrome and those that need to temporarily enter the aerodrome.</p>

With regard to the latter case, the text has been amended in order to also accommodate the occasional operation of these vehicles which, although they normally operate within the aerodrome are not fitted with such equipment, just like the case of vehicles which are not equipped with a radio.

With regard to other vehicles that need to enter the aerodrome and operate in this area, they are meant to be escorted by the vehicles which carry the necessary equipment for the surveillance purposes of the SMGCS.

comment

717

comment by: ACI Europe

General Comment: This section should be deleted or moved to GM.

Point (a)(1) may be in conflict with local rules for health and safety in some Member States.

Also Point (a)(1) It is not clear what the criteria for "serviceable and fit" is. Please provide clarification.

Point (a)(3) ACI EUROPE propose deleten of the follwoing text following (a)(3)(ii): "except that, a radio may not be installed, if the vehicle is occasionally used in these areas and is escorted by (an)other vehicle(s) equipped with such a radio, when operatin in these areas; and"

Rationale: The above text is identical with Point (d)(2).

Point (d)(1) reads as follows:

(d) Notwithstanding (a), the aerodrome operator may permit the temporary operation of a vehicle on the movement area or other operational areas, if:

(1) a visual inspection of the vehicle determines that its condition does not endanger safety:

Point (d)(1) is not very clear. Please clarify how the the visual inspection will support safety and who would carry out the inspection?

Point (e) must be in line with ICAO, must this be decided by aerodrome operator? should be at least in conjunction with local ATC?

response

Partially accepted

The proposed text has been reviewed and it is found that it is at the appropriate level for the transposition of the relevant ICAO SARPs and PANS provisions, and for the development of a relevant framework, which ensures the necessary clarity, the required legal certainty and enforceability. Relevant guidance for its implementation is already provided.

With regard to the comment on point (a)(3), please note that point (a) defines the criteria that all vehicles intended to operate in the relevant aerodrome areas must meet. Point (d)(2) however is an exemption to the above rule, and concerns only the conditions for the use of vehicles which may need to be allowed to operate in the relevant aerodrome areas for specific reasons. However, in order to improve



readability, the text has been amended in the suggested direction to cover the case of vehicles that normally operate within an aerodrome or need to enter an aerodrome without meeting the relevant requirements.

With regard to point (d)(1), please note that the purpose of the visual inspection is to verify that possible risks arising from the operation of such a vehicle are addressed. Please refer to the relevant guidance provided for this subject.

With regard to point (e), please note that ICAO does not currently address this issue, while the proposal was in line with ICAO State Letter 25 of 2018. The text has nevertheless been reworded to ensure coordination with the ATS provider, for the vehicles meant to operate on the manoeuvring area.

comment	<p>718 comment by: ACI Europe</p> <p>Point (f)(2) Please clarify what “relevant records” would include in this context.</p> <p>Suggest (f)(2) to delete: maintain relevant records</p> <p>Rationale: already covered in management system requirements</p>
response	<p>Noted</p> <p>‘Relevant records’ means records related to the activities stemming from the implementation of the particular requirement.</p>

comment	<p>740 comment by: SAS</p> <p>Supported</p>
response	<p>Noted</p> <p>EASA would like to thank you for your support regarding the proposed changes.</p>

comment	<p>916 comment by: ADV - German Airports Association</p> <p>(b) (c)</p> <p>Delete or move to GM.</p> <p>The necessary implementation of procedures and systems for managing and assessing authorisations has to come with flexible and proportionate provisions.</p>
response	<p>Noted</p> <p>The proposed provisions have been reviewed and have been found to provide the necessary flexibility and proportionality, as they only set the relevant objectives to be met.</p>



comment	986	comment by: <i>Swedish Transport Agency</i>
	Supported.	
response	Noted	
	EASA would like to thank you for your support regarding the proposed changes.	
comment	1476	comment by: <i>Brussels Airport Company</i>
	Point (a)(1) Conflicting with Ministerial Decree (local rulemaking).	
	This IR should be at GM level due to the level of detail provided.	
response	Noted	
	The proposed text has been reviewed and it is found that it is at the appropriate level for the transposition of the relevant ICAO SARPs and PANS provisions, and for the development of a relevant framework, which ensures the necessary clarity, the required legal certainty and enforceability.	
comment	1493	comment by: <i>Atle Vivas</i>
	Supported	
response	Noted	
	EASA would like to thank you for your support regarding the proposed changes.	
comment	1618	comment by: <i>Riga International Airport</i>
	<ol style="list-style-type: none"> 1. It is desirable to clarify the if the requirements ADR.OPS.B.026 (a) (3) (i) and (4) (i) shall apply to vehicles intended to be operated outside of taxiway strip, runway protected area, RESAs, ILS protected areas but within a remote portion of the runway strip; 2. ADR.OPS.B.027 (c) (2) requirement should be commented to facilitate a proper interpretation as to what kind of visual aids are to be provided on a taxiway at the boundary of the runway strip which normally would not be co-located with runway holding position or its visual aids and which need not be co-located with the boundary if the ATC area of responsibility. A specification for runway strip marking or lights is desirable. 	
response	Noted	
	Please refer to the relevant definitions contained in Regulation (EU) No 139/2014 concerning the areas in question. The proposed ADR.OPS.B.027 (c)(2) relates to communication procedures/actions to be accomplished before entering the manoeuvring area.	

comment	1740	comment by: <i>UAF (Union des Aéroports Français)</i>
	UAF support ACI E comment#717 and 718	
response	Noted	
	Please refer to the replies to the ACI comments Nos 717 and 718.	
comment	1830	comment by: <i>Groupe ADP</i>
	OPS.B.025 : Authorisation of vehicule drivers, OPS.B.026: Authorisation of vehicules, B027 Operation of vehicles, OPS.C.007 Maintenance of vehicules As far as Ground Handlers vehicles and GSE are concerned by these requirements, there is an inconsistency with 1139/2018 Annex VII Essential requirements for 4/. GROUNDHANDLING SERVICES. Indeed, § 4.1 d) e) and f) detail responsibilities of GH providers in matters of operations, training of drivers, qualification and maintenance program of GSE. GH provider will be submitted to declaration of compliance to these rules. How could it be compatible with an obligation of certification of the airport operator to implement and enforce equivalent rules regarding GH provider's vehicles and GSE ?	
response	Noted	
	We understand that this comment refers to the proposed content of ADR.OPS.B.026. The text has been reviewed and EASA considers that there is no inconsistency with the provisions of Regulation (EU) 2018/1139. Please note that the proposed provisions do not concern groundhandling organisations as vehicle operators, but the vehicles themselves irrespective of their operators (e.g. the aerodrome operator itself and all other organisations such as air operators, Part-145 organisations, etc. which are allowed to operate in the aerodrome areas).	
comment	1857	comment by: <i>Danish Transport, Construction and Housing Authority</i>
	Support CAA Norway	
response	Noted	
	EASA would like to thank you for your support regarding the proposed changes.	

ADR.OPS.B.027 Operation of vehicles

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comment	217	comment by: <i>GdF</i>
	To reduce the number of runway-safety-related accidents and serious incidents involving runway incursions, but also other runway-safety-related event all traffic must be aware of each other, so all r/t must be accomplished on one frequency, on	



	<p>which all participants are able to listen to movements of other traffic. E.g. landing aircraft would be able to hear a clearance for cars on the landing runway.</p> <p>Additional, switching between two radios can lead to delayed reaction and head-down time, both of which should be avoided.</p> <p>(1) establish satisfactory two-way radio communication with the air traffic services unit on the appropriate ATS-Frequency before entering the manoeuvring area, and maintain a continuous listening watch on the assigned frequency;</p>
response	<p>Accepted</p> <p>The text has been modified as suggested.</p>
comment	<p>245 comment by: <i>Gatwick Airport</i></p> <p>Para (b) part 1, should add "Aircraft being pushed back from stand?"</p>
response	<p>Noted</p> <p>The provision applies for operations on the manoeuvring area. Moreover, the text has been amended to match the provisions of the relevant provisions of EASA Opinion No 03-2018 (Requirements for air traffic services).</p>
comment	<p>246 comment by: <i>Gatwick Airport</i></p> <p>D (2) - question if this is safest procedure, as when in doubt of position of the vehicle, further movement of the vehicle could lead to a more hazardous situation.</p> <p>We question if (2) is required in this situation?</p>
response	<p>Noted</p> <p>This is an internationally agreed practice to deal with the case of a driver being uncertain of its position. The way this is to be implemented is left to the aerodrome operators and ATS providers, while point (2) provides for a different course of action through the instructions given by the ATS.</p>
comment	<p>402 comment by: <i>Federal Ministry of Transport Germany, Aerodrome Department</i></p> <p>Es werden erstmals Vorfahrtregelungen für das Rollfeld implementiert. Obwohl dies grundsätzlich zu begrüßen ist, sorgte die vorgeschlagene Reihenfolge / primär Formulierung sowohl auf Behördenseite als auch bei Flugplätzen in unserem Zuständigkeitsbereich für Verwirrung und Missverständnisse. Punkt b)5) besagt, dass Fahrzeuge, die zu einem Notfall unterwegs sind, Vorfahrt gegenüber allen anderen Bodenbewegungen haben. Sollte dies auch rollende Luftfahrzeuge einschließen,</p>

ist zu bedenken, dass der Luftfahrzeugführer ein eingeschränktes Sichtfeld hat, die Intention der RFFS-Fahrzeuge nicht kennt und eine vorherige Information oder Regelung über die Flugsicherungsstelle eine zeitliche Verzögerung zum Inhalt haben kann. Es könnte auch zum abrupten Bremsvorgang des Luftfahrzeuges kommen, was ggf. Verletzungen von Personen und Beschädigungen innerhalb des Luftfahrzeuges zur Folge haben kann. Hier stellt sich die Frage, ob es nicht sinnvoller wäre, dass Flugplätze eigene Regeln diesbezüglich festlegen, welche sowohl die individuellen und lokalen Gegebenheiten an Flugplätzen berücksichtigen (Rettungs- und Feuerwehrfahrzeuge haben z.T. spezielle Anfahrtsrouten, um Kollisionen mit rollenden Luftfahrzeugen zu vermeiden etc), als auch die relevanten ICAO Vorgaben.

response

Noted

The proposed provisions address SARPs contained in Annex 14 and proposed provisions for Annex 11, while in some cases reproduce already applicable regulatory provisions included in the SERA Regulation.

This includes the right of way, which is addressed in point (b) and covers the priorities of the traffic on the manoeuvring area. Such emergency cases are expected to be dealt with through relevant procedures which are coordinated with the local ANSP, and which are contained in the aerodrome manual and according to which the aerodrome is to be operated. Moreover, the text has been amended to match the corresponding provisions of the EASA Opinion No 03-2018 (Requirements for air traffic services).

comment

513

comment by: UK CAA

Page No: 49/50/51**Paragraph No:** ADR.OPS.B.027

Comment: We believe sections (a) to (h) contain too much specific detail for IR level requirements. All the sub sections could be removed to AMC.

Justification: There has always been an overriding principle in the Aerodrome regulations that the IR would be a high level requirement and any specific detail would be AMC or GM.

response

Noted

The proposed text has been reviewed and it was found that it is at the appropriate level for the transposition of the relevant ICAO SARPs and PANS provisions, which are the minimum standards for universal applicability, while ensuring the necessary clarity, the required legal certainty and enforceability, in line with all other aviation domains and the Chicago Convention.

comment

581

comment by: Belgian CAA



response	<p>This is not an IR, this is an assembly of IR, AMC and GM in one IR. This is not the way rulemaking should be done, the IR is too specific.</p> <p>Noted</p> <p>The proposed text has been reviewed and it has been found that it is at the appropriate level for the transposition of the relevant ICAO SARPs and PANS provisions, which are the minimum standards for universal applicability, while ensuring the necessary clarity, the required legal certainty and enforceability, in line with all other aviation domains and the Chicago Convention.</p>
comment	<p>589 comment by: ADV - German Airports Association</p> <p>Revise text:</p> <p>(b) (5)</p> <p>notwithstanding the provisions of (1), (2), (3) and (4), emergency vehicles responding to an emergency shall be given priority over all other surface movement vehicle traffic.</p> <p>Rationale: Aircraft cannot always safely give way to vehicles.</p>
response	<p>Not accepted</p> <p>Please refer to Annex 2 and the relevant SERA provisions, which are already applicable.</p>
comment	<p>609 comment by: CAA Norway</p> <p>ADR.OPS.B.027 Operation of vehicles</p> <p>COMMENT: Item 1 (b). The sentence ‘vehicles and vehicles towing aircraft shall give way to aircraft which are landing, taking off, taxiing, or being towed;’ needs to be split in two. We suggest the following wording:</p> <p>(1) (a) vehicles shall give way to aircraft which are landing, taking off, taxiing, or being towed; (b) vehicles towing aircraft shall give way to aircraft which are landing, taking off or taxiing. vehicles towing aircraft shall give way to another vehicle towing aircraft coming from the right.</p> <p>RATIONALE: The original proposal does not define how two vehicles, both towing aircraft shall act in a conflict situation. <i>NOTE: The proposed change will affect Regulation 923/2012 and possibly 2017/373 with associated Annexes</i></p> <p>COMMENT: Item 3 (c). Suggest delete the word ‘personnel’.</p>

response	<p>RATIONALE: The term 'air traffic services' is considered to be sufficient.</p> <p>Noted</p> <p>The text has been amended to match the provisions of the relevant provisions of EASA Opinion No 03-2018 (Requirements for air traffic services), which is based on the content of Annex 11. However, the proposal will be further evaluated.</p>
comment	<p>642 comment by: CAA-NL</p> <p>ADR.OPS.B.027 – Operation of vehicles</p> <p>ADR.OPS.B.027 (b) is a copy of SERA.3210(d). CAA Netherlands questions why there is a specific need to duplicate this requirement.</p> <p>There seems to be an ambiguity in this requirement: vehicles towing aircraft should give way to vehicles towing aircraft.</p> <p>CAA Netherlands give the consideration that the requirements of ADR.OPS.B.027(c) could also be included in SERA.8015 as it is multi-actor (driver, airport authority and ATS) related.</p>
response	<p>Noted</p> <p>The proposed provision (unlike the wording of SERA) addresses specifically vehicle drivers, and as such, it is specific, while its inclusion in Regulation (EU) No 139/2014 does not create any problem (a similar approach is applied in the case of ATM/ANS area).</p> <p>The text has been amended to match the provisions of the relevant provisions of EASA Opinion No 03-2018 (Requirements for air traffic services), which is based on the content of Annex 11. However, the proposal will be further evaluated.</p> <p>Nevertheless, the inclusion of ADR.OPS.B.027(c) in the SERA Regulation is not considered to be appropriate as these particular provisions are not considered as affecting all actors.</p>
comment	<p>719 comment by: Irish Aviation Authority</p> <p>Reference (d)(2) Propose replacing the term "landing area" with "runway"</p> <p>Reference ((e)(2)(iii) Propose replacing "on the air" to "in the air"</p>
response	<p>Accepted</p> <p>The text has been reworded as suggested.</p>
comment	<p>720 comment by: ACI Europe</p>



General	Comment:
<p>EASA CRD 2016-09(B) and EASA Opinion No 3/2018 related to the provision of air traffic services (ATS) contained new and changed regulations to (EU) 2017/373 og (EU) 923/2012. There should be a harmonization between these and (EU) 139/2014.</p> <p>RATIONALE: Lack alignment between different regulations.</p>	
<p>General</p> <p>This IR should be at GM level due to the level of detail provided.</p> <p>Proposed rewording of point (a)(2) and (a)(3) (2) in compliance with all mandatory instructions conveyed by markings, lights and signs unless otherwise authorised by the air traffic services unit; and (3) in compliance with all mandatory instructions conveyed by lights.</p> <p>Rationale: Shorter wording</p> <p>Point (b)(1) delete wording "or being towed"</p> <p>ADR.OPS.B.027 (b)(3) Vehicles shall give way to other vehicles in accordance with ...local regulations or agreed airport procedures. Not in accordance with the ATSU! These procedures are agreed locally between ANSP, the airport and airport users - Para (g)(5) says it better than (b)(3).</p> <p>ADR.OPS.B.027 (c) (1) Do not need to establish 2 way comms with ATC – too much RT workload at large airports – need to follow locally agreed procedures. Some airports can drive on certain areas of the manoeuvring area maintaining a listening watch on the correct frequency without necessarily speaking to ATC. At these aerodromes radio-checks are often performed with a delegated unit under responsibility of ATC. This is not always an ATS unit. Suggestion is to add ‘...or delegated unit/organization...’ to the proposed text of point (c)(1).</p> <p>(c)(2) possibly pre-authorized, or have agreement between ATC and aerodrome operator. ACI Europe proposes the deletion of section (c) (2). Rationale: Shorter wording. Section (a)(1) above already stipulates that vehicle drivers have to operate in accordance with the instructions issued by the air traffic services unit. If deemed necessary by the Agency, additional guidance material might clarify that the air traffic services unit’s instructions issued via R/T are mandatory as well.</p> <p>Point (c)(3) At (very) busy airports, vehicles may operate in the manoeuvring area under so called passive control – this implies that no explicit authorization is needed by the driver, except for entry to a runway. Operation on a taxiway is not always subject to an explicit authorization. Suggestion is to delete the word ‘taxiway’ in point (c)(3) or to add an extra phrase for the applicability of taxiways such as ‘...authorization for entry onto taxiways may be subject to local regulations.’</p>	
<p>response</p>	<p>Partially accepted</p>

The proposed text has been reviewed and it has been found that it is at the appropriate level for the transposition of the relevant ICAO SARPs and PANS provisions, which are the minimum standards for universal applicability, while ensuring the necessary clarity, the required legal certainty and enforceability, in line with all other aviation domains and the Chicago Convention.

The text has been amended to match the provisions of the relevant provisions of EASA Opinion No 03-2018 (Requirements for air traffic services), which is based on the content of Annex 11.

Please also note that not all lights provide mandatory instruction and the adopted text may not contravene other sets of existing regulations (e.g. SERA), which have transposed other Annexes to the Chicago Convention, or lead to the incomplete transposition of the text with possible impact on safety.

comment

722

comment by: ACI Europe

General**Comment:**

This IR should be at GM level due to the level of detail provided.

The requirements under points (e)(1) and (e)(2) are applicable to vehicle drivers operating without an authorization to enter the applicable areas. It is suggested to add an extra sentence for the cases that autorisation has been given: ‘...when not authorised to enter...

(e) (2)(ii) – no need to include RESA. Too onerous and restrictive at some airports, there is no need to include this. RESA is a place for planes to crash and is very infrequently used for this purpose. (EAPPRI could not agree on this so why has EASA chosen to be different?) (rationale page 52).

(f) does not make sense at many airports. There is no need to speak to anyone when entering the apron. Add “if applicable” or delete. The current wording in points (f) and (g) implies that each vehicle on the apron needs (prior) instructions / clearances by the “responsible unit”. Especially at larger aerodromes this is not feasible due to the volume of airside service traffic. Hence, **deletion or the following wording** is suggested:

(f) The driver of a vehicle on the apron shall operate the vehicle in accordance with the following:

- (1) only as authorised by the responsible unit designated by the aerodrome operator, and in accordance with the instructions issued by that unit;
- (2) in compliance with all mandatory instructions conveyed by markings, lights, signs and two-way radio communication unless otherwise authorized by the responsible unit designated by the aerodrome operator;
- (3) vehicles shall give way to an emergency vehicle, an aircraft taxiing, about to taxi, or being pushed or towed;
- (4) vehicles shall give way to other vehicles in accordance with local regulations; and
- (5) emergency vehicles responding to an emergency shall be given priority over all other surface movement.



response	<p>Point (j) should be deleted</p> <p>Point (k) it is not clear what ‘other operational areas’ are. Please provide definition.</p> <p>Partially accepted</p> <p>Please note that the operation of vehicles in the strip is related to location of the runway holding position. Moreover, RESA are meant to be free of objects, including vehicles. The provision of point (f) has been amended for clarity, while point (j) needs to be maintained for ensuring proper vehicle operations at an aerodrome.</p> <p>The term ‘other operational areas’ has been contained in the previous Basic Regulation since 2008, and has also been part of Regulation (EU) 2018/1139 (Annex VII, Section 2-Operations and management, point 2.1(d) and (l)). It has also been included in Regulation (EU) No 139/2014 without any reported difficulty in its implementation. Given the regulatory context where the term is introduced, it is indeed meant to include areas which serve an operational purpose (on the ‘airside’), but which are not part of the manoeuvring area and the apron(s). Relevant guidance has been added.</p>
comment	<p>741 comment by: SAS</p> <p>Supported</p>
response	<p>Noted</p> <p>EASA would like to thank you for your support regarding the proposed changes.</p>
comment	<p>805 comment by: Aena Aeropuertos, S.A.</p> <p>* (h)(2) We understand that this point is related with the concept of "sterile cab", that according to RMT0703 (page 7) and EAPPRI must be applied in the maneuvering area. This must be indicated in the text.</p> <p>* The requirement for (e) (2) (i) must not be higher than for (e) (1), (h) (2) and AMC2 ADR.OPS.B.027 (h) (2), so it should be possible to occupy the runway strip further than the runway end at the centre line distance established.</p> <p>* (e)(2)(i) That point comes from CS B.165 Objects on runway strips, in which the paragraph that allows the operation of mobile objects on runway strips during takeoffs and landings is eliminated and regulated with the ADR.OPS.B.027 → Restrict vehicles circulation located in a strip to a distance less than 60m of the runway centre line is too restrictive since we are comparing the vehicles to aircraft requiring them the same requirements as aircraft in the runway-holding positions, when they have a smaller size and greater maneuverability. The collision probability with vehicles as a fixed obstacle is much lower, so that is why the distance fixed in annex 14 of 60m for mobile objects is considered tolerable.</p>
response	<p>Noted</p>



EASA considers that the 'sterile cab' concept needs to be applied on the whole of the movement area for reasons related to the safety of operations. A vehicle may not be on an area such as a RESA or strip given that it is considered to be a non-allowed object preventing the attainment of the objective of that area. For the distance in which a vehicle would need to be operated, please refer to the rationale of the proposal and the relevant provisions of PAN-ATM.

comment 889 comment by: Aleksandar Ilkovski

ADR.OPS.B.027(f):
What if apron is uncontrolled? Needs clarification.

response Accepted

The text has been amended.

comment 956 comment by: PRG Airport

ADR.OPS.B.027 (c) - In addition to the support of ACI comment on this issue, we'd like emphasize disagreement with the proposal of this requirement. For aerodrome of layout and size of our ADR it means about 2500 entries of vehicles to the manoeuvring area per day. Overloaded frequency, higher workload of ATC, slowing down of crossings of TWYs and jammed service roads will affect the fluency and smoothness of operation on the apron.

response Noted

comment 987 comment by: Swedish Transport Agency

ADR.OPS.B.027 Operation of vehicles

COMMENT: Item 1 (b). The sentence 'vehicles and vehicles towing aircraft shall give way to aircraft which are landing, taking off, taxiing, or being towed;' needs to be split in two.

We suggest the following wording:

(1) (a) vehicles shall give way to aircraft which are landing, taking off, taxiing, or being towed;

(b) vehicles towing aircraft shall give way to aircraft which are landing, taking off or taxiing. vehicles towing aircraft shall give way to another vehicle towing aircraft coming from the right.

RATIONALE: RATIONALE: The original proposal does not define how two vehicles, both towing aircraft shall act in a conflict situation.

NOTE: The proposed change will affect Regulation 923/2012 and possibly 2017/373 with associated Annexes.



response	<p>Noted</p> <p>The text has been amended to match the provisions of the relevant provisions of EASA Opinion No 03-2018 (Requirements for air traffic services), which is based on the content of Annex 11. However, the proposal will be further evaluated.</p>
comment	<p>1367 comment by: <i>Andreas Herndler, CAA Austria</i></p> <p>The phrase <i>vehicles towing aircraft shall give way to aircraft ... being towed</i> might lead to a confusion, as both wordings might have the same meaning. Therefore it is recommended to rephrase <i>vehicles towing aircraft</i> to <i>towing-vehicles</i>.</p> <p>Therefore following adjustments are suggested:</p> <p>(b) The driver of a vehicle on the manoeuvring area shall operate the vehicle in accordance with the following:</p> <p>(1) vehicles and towing-vehicles towing aircraft shall give way to aircraft which are landing, taking off, taxiing, or being towed;</p> <p>(2) vehicles shall give way to other towing-vehicles towing aircraft;</p> <p>(3) vehicles shall give way to other vehicles in accordance with the air traffic services unit instructions;</p> <p>(4) notwithstanding the provisions of (1), (2) and (3), vehicles and towing-vehicles towing aircraft shall comply with the instructions issued by the air traffic services unit; and</p> <p>(5) notwithstanding the provisions of (1), (2), (3) and (4), emergency vehicles responding to an emergency shall be given priority over all other surface movement traffic.</p> <p>(e) The driver of a vehicle on the manoeuvring area:</p> <p>(1) when operating a vehicle on the strip of a runway shall not, during the use of that runway for landing or take-off, approach the runway closer than the distance at which the runway-holding position or any road-holding positions have been established for that runway the dimensions of the runway strip (CS ADR_DSN.B.160); and</p> <p>(f) The driver of a radio-equipped vehicle on the apron shall:</p> <p>(1) establish satisfactory two-way radio communication with the responsible unit designated by the aerodrome operator before entering the apron; and</p> <p>(2) maintain a continuous listening watch on the assigned frequency.</p>
response	<p>Partially accepted</p> <p>The text has been amended to match the provisions of the relevant provisions of EASA Opinion No 03-2018 (Requirements for air traffic services), which is based on the content of Annex 11. However, the proposal will be further evaluated.</p> <p>EASA also considers that the proposal for the minimum distance that a vehicle may approach towards a runway during landing and take-off operations and the use of radio communication may not be accepted, as they do not take into account the need to ensure safety and compliance with internationally agreed provisions. Point (f) has been amended to show that the provision applies only when necessary.</p>

comment	<p>1390 comment by: Graz Airport</p>
	<div style="border: 1px solid black; padding: 10px;"> <p>(b) The driver of a vehicle on the manoeuvring area shall operate the vehicle in accordance with the following:</p> <p>(1) vehicles and towing-vehicles towing aircraft shall give way to aircraft which are landing, taking off, taxiing, or being towed;</p> <p>(2) vehicles shall give way to other towing-vehicles towing aircraft;</p> <p>(3) vehicles shall give way to other vehicles in accordance with the air traffic services unit instructions;</p> <p>(4) notwithstanding the provisions of (1), (2) and (3), vehicles and towing-vehicles towing aircraft shall comply with the instructions issued by the air traffic services unit; and</p> <p>(5) notwithstanding the provisions of (1), (2), (3) and (4), emergency vehicles responding to an emergency shall be given priority over all other surface movement traffic.</p> <p>(e) The driver of a vehicle on the manoeuvring area:</p> <p>(1) when operating a vehicle on the strip of a runway shall not, during the use of that runway for landing or take-off, approach the runway closer than the distance at which the runway holding position or any road holding positions have been established for that runway the dimensions of the runway strip (CS ADR_DSN.B.160); and</p> <p>(f) The driver of a radio-equipped vehicle on the apron shall:</p> <p>(1) establish satisfactory two-way radio communication with the responsible unit designated by the aerodrome operator before entering the apron; and</p> <p>(2) maintain a continuous listening watch on the assigned frequency.</p> </div> <p>The phrase vehicles towing aircraft shall give way to aircraft ... being towed might lead to a confusion, as both wordings might have the same meaning. Therefore it is recommended to rephrase vehicles towing aircraft to towing-vehicles.</p>
response	<p>Partially accepted</p> <p>The text has been amended to match the provisions of the relevant provisions of EASA Opinion No 03-2018 (Requirements for air traffic services), which is based on the content of Annex 11. However, the proposal will be further evaluated.</p> <p>EASA also considers that the proposal for the minimum distance that a vehicle may approach towards a runway during landing and take-off operations and the use of radio communication may not be accepted, as they do not take into account the need to ensure safety and compliance with internationally agreed provisions. Point (f) has been amended to show that the provision applies only when necessary.</p>
comment	<p>1478 comment by: Brussels Airport Company</p>
	<p>This IR should be at GM level due to the level of detail provided.</p>
response	<p>Not accepted</p>



The proposed text has been reviewed and it has been found that it is at the appropriate level for the transposition of the relevant ICAO SARPs and PANS provisions, which are the minimum standards for universal applicability, while ensuring the necessary clarity, the required legal certainty and enforceability, in line with all other aviation domains and the Chicago Convention.

comment

1501

comment by: *Atle Vivas*

COMMENT: Item 1 (b). The sentence ‘vehicles and vehicles towing aircraft shall give way to aircraft which are landing, taking off, taxiing, or being towed;’ needs to be split in two.

We suggest the following wording:

(1) (a) vehicles shall give way to aircraft which are landing, taking off, taxiing, or being towed;

(b) vehicles towing aircraft shall give way to aircraft which are landing, taking off or taxiing. vehicles towing aircraft shall give way to another vehicle towing aircraft coming from the right.

RATIONALE: The original proposal does not define how two vehicles, both towing aircraft shall act in a conflict situation.

NOTE: The proposed change will affect Regulation 923/2012 and possibly 2017/373 with associated Annexes

COMMENT: Item 3 (c). Suggest delete the word ‘personnel’.

RATIONALE: The term ‘air traffic services’ is considered to be sufficient.

response

Noted

The text has been amended to match the provisions of the relevant provisions of EASA Opinion No 03-2018 (Requirements for air traffic services), which is based on the content of Annex 11. However, the proposal will be further evaluated.

comment

1540

comment by: *F. Ehmoser*

(b) The driver of a vehicle on the manoeuvring area shall operate the vehicle in accordance with the following:

(1) vehicles and **towing**-vehicles ~~towing aircraft~~ shall give way to aircraft which are landing, taking off, taxiing, or being towed;

(2) vehicles shall give way to other **towing**-vehicles ~~towing aircraft~~;

(3) vehicles shall give way to other vehicles in accordance with the air traffic services unit instructions;

(4) notwithstanding the provisions of (1), (2) and (3), vehicles and **towing**-vehicles ~~towing aircraft~~ shall comply with the instructions issued by the air traffic services unit;

(5) notwithstanding the provisions of (1), (2), (3) and (4), emergency vehicles responding to an emergency shall be given priority over all other surface movement traffic.



(e) The driver of a vehicle on the manoeuvring area:
 (1) when operating a vehicle on the strip of a runway shall not, during the use of that runway for landing or take-off, approach the runway closer than ~~the distance at which the runway-holding position or any road-holding positions have been established for that runway~~ the **dimensions of the runway strip (CS ADR_DSN.B.160)**; and
 (f) ~~The driver of a radio-equipped vehicle on the apron shall:~~
 (1) ~~establish satisfactory two-way radio communication with the responsible unit designated by the aerodrome operator before entering the apron; and~~
 (2) ~~maintain a continuous listening watch on the assigned frequency.~~

The phrase vehicles towing aircraft shall give way to aircraft ... being towed might lead to a confusion, as both wordings might have the same meaning. Therefore it is recommended to rephrase vehicles towing aircraft to towing-vehicles.

response Partially accepted

The text has been amended to match the provisions of the relevant provisions of EASA Opinion No 03-2018 (Requirements for air traffic services), which is based on the content of Annex 11. However, the proposal will be further evaluated.

EASA also considers that the proposal for the minimum distance that a vehicle may approach towards a runway during landing and take-off operations and the use of radio communication may not be accepted, as they do not take into account the need to ensure safety and compliance with internationally agreed provisions. Point (f) has been amended to show that the provision applies only when necessary.

comment

1716

comment by: ENAC Italy

The entire paragraph should be moved and transferred to a SERA Appendix, because the entire paragraph is applicable to all airports, not only those subject to regulation 139/2014.

(1) only as authorised cleared by the air traffic services control unit, and in accordance with the clearance and instructions issued by that unit. On those airports where AFIS is provided or where no ATS is provided, the driver shall take into account flight information provided or the traffic scenario in relation to following para (b);

Justification

Current formulation does not take into account the different level of responsibilities implied by the different level of services at airports. In particular, in case on no sointrol service, the decision to operate the vehicle on the maneuvering area is entirely in the hands of the driver, who has to take into consideration the traffic situation (i.e aircraft in short final).

response

Noted

The proposed provision transposes a relevant provision of Annex 14 and which applies on the aerodromes which fall under the scope of Regulation (EU) 2018/1139.

comment

1717

comment by: ENAC Italy



	<p>Delete point (b) as already contained in SERA, or move it into GM</p> <p>Justification Duplication of regulation has too many shortcomings, well described in the general part of the comments. Nothing prevents that for information purposes, it is duplicated or referred in the related GM</p>
response	<p>Noted</p> <p>The proposed provision does not affect the content of the relevant SERA provision, while it is directly addressed to drivers.</p>
comment	<p>1741 comment by: <i>UAF (Union des Aéroports Français)</i></p> <p>UAF support ACI E comment#720 and #722</p>
response	<p>Noted</p> <p>Please refer to the replies to comments Nos 720 and 722.</p>
comment	<p>1831 comment by: <i>Groupe ADP</i></p> <p>OPS.B.025 : Authorisation of vehicule drivers, OPS.B.026: Authorisation of vehicules, B027 Operation of vehicles, OPS.C.007 Maintenance of vehicules As far as Ground Handlers vehicles and GSE are concerned by these requirements, there is an inconsistency with 1139/2018 Annex VII Essential requirements for 4/ GROUNDHANDLING SERVICES. Indeed, § 4.1 d) e) and f) detail responsibilities of GH providers in matters of operations, training of drivers, qualification and maintenance program of GSE. GH provider will be submitted to declaration of compliance to these rules. How could it be compatible with an obligation of certification of the airport operator to implement and enforce equivalent rules regarding GH provider's vehicles and GSE ?</p>
response	<p>Noted</p> <p>We understand that this comment is related to the proposed provisions of ADR.OPS.B.027, which concerns the operation of vehicles at an aerodrome.</p> <p>The text has been reviewed and there is no inconsistency with the provisions of Regulation (EU) 2018/1139.</p> <p>Please note that the proposed provisions do not concern groundhandling organisations, but they introduce rules for the operation of vehicles in general, irrespective of their operators (e.g. the aerodrome operator itself and all other organisations such as air operators, Part-145 organisations, etc. which are allowed to operate in the aerodrome areas).</p>
comment	<p>1855 comment by: <i>Danish Transport, Construction and Housing Authority</i></p>



response	<p>Comment to (f): There seems to be a conflict between ADR.OPS.B.027(f) and AMC1 ADR.OPS.B.026(a)(1);(3)(b)</p> <p>Partially accepted</p> <p>ADR.OPS.B.026 foresees that a vehicle needs to be equipped with a radio when operating on the manoeuvring area, and if required in other operational areas. The relevant AMC1 ADR.OPS.B.026(a)(1) states that ‘The aerodrome operator, in coordination with the air traffic services provider and, if applicable, the apron management services provider, if different, should assess in which areas of the aerodrome, except the manoeuvring area, a vehicle needs to be equipped with a radio’. This may (or may not) include the apron area.</p> <p>Therefore, point (f) of ADR.OPS.B.027 which requires that ‘The driver of a radio-equipped vehicle on the apron shall establish satisfactory two-way radio communication with the responsible unit designated by the aerodrome operator before entering the apron;’, and which transposes Standard 9.7.5 of Annex 14, applies in the case that the apron area has been determined as requiring the use of a radio by vehicles, due to various reasons. In this respect, no conflict between the AMC in question and the proposed point (f) of ADR.OPS.B.027 exists. However, in order to avoid any misunderstanding regarding the meaning of the proposed provision, the relevant text has been amended in order to clarify its intent.</p>
comment	<p>1910 comment by: <i>Copenhagen Airports A/S</i></p> <p>Subject: (b)(5). Proposal: Clarify 'all other surface movement traffic'. Justification: If it include aircrafts there can be issues regarding the type of emergency that has priority over aircraft.</p>
response	<p>Accepted</p> <p>The text has been amended to better clarify the intent of the provision.</p>
comment	<p>1915 comment by: <i>Copenhagen Airports A/S</i></p> <p>Subject: (c) (2). Proposal: Move to GM. Replace (c) with wording of having procedures in place. Justification: Copenhagen Airport has, in coordination with air traffic service, a standing permit for all aerodrome operator owned vehicles to enter the manoeuvring area without establishing two-way communication. There is a requirement of having listening obligations and establish contact for activity that need clearance (crossing runways etc.). The standing permit is withdrawn when low visibility procedures is in force.</p>
response	<p>Not accepted</p> <p>The proposed text has been reviewed and it has been found to be at the appropriate level for the transposition of the relevant ICAO SARPs and PANS provisions, which</p>

are the minimum standards for universal applicability, while ensuring the necessary clarity, the required legal certainty and enforceability, in line with all other aviation domains and the Chicago Convention.

comment	<p>1919 comment by: <i>Copenhagen Airports A/S</i></p> <p>Subject: (f) Proposal: Move to GM. Justification: The extent of establishing radio contact for the entire APRON will lead to reduction of safety due to significant extent of communication. Service roads can not be used without radio contact. It should be up to the aerodrome operator to assess the extent communication together with apron management service.</p>
response	<p>Partially accepted</p> <p>ADR.OPS.B.026 foresees that a vehicle needs to be equipped with a radio when operating on the manoeuvring area, and if required in other operational areas. The relevant AMC1 ADR.OPS.B.026(a)(1) states that ‘The aerodrome operator, in coordination with the air traffic services provider and, if applicable, the apron management services provider, if different, should assess in which areas of the aerodrome, except the manoeuvring area, a vehicle needs to be equipped with a radio’. This may (or may not) include the apron area.</p> <p>Therefore, point (f) of ADR.OPS.B.027 which requires that ‘The driver of a radio-equipped vehicle on the apron shall establish satisfactory two-way radio communication with the responsible unit designated by the aerodrome operator before entering the apron;’, and which transposes Standard 9.7.5 of Annex 14, applies in the case that the apron area has been determined as requiring the use of a radio by vehicles, due to various reasons. In this respect, no conflict between the AMC in question and the proposed point (f) of ADR.OPS.B.027 exists. However, in order to avoid any misunderstanding regarding the meaning of the proposed provision, the relevant text has been amended in order to clarify its intent.</p>

ADR.OPS.B.028 Aircraft towing	p. 52-53
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comment	<p>247 comment by: <i>Gatwick Airport</i></p> <p>No comment</p>
response	<p>Noted</p>

comment	<p>514 comment by: <i>UK CAA</i></p> <p>Page No: 52</p> <p>Paragraph No: ADR.OPS.B.028</p>
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	<p>Comment: We believe sections (a) to (e) contain too much specific detail for IR level requirements. All the sections could be removed to AMC.</p> <p>Justification: There has always been an overriding principle in the Aerodrome regulations that the IR would be a high level requirement and any specific detail would be AMC or GM.</p>
response	<p>Noted</p> <p>The text has been reviewed and EASA does not share the view that these provisions are detailed, as they simply define the areas that the procedures need to cover.</p>
comment	<p>583 comment by: <i>Belgian CAA</i></p> <p>Point (a), the movement of towed aircraft is under the supervision of ATC not the aerodrome operator.</p>
response	<p>Noted</p> <p>Point (a) applies to the establishment of the procedures in order to ensure safety during the manoeuvring of a towed aircraft, including on the apron. The relevant AMC amplifies what is expected to be taken into account for the development of the procedures. The proposed provision is not in conflict with the responsibilities of the ATS provider, which remains responsible for traffic regulation.</p>
comment	<p>611 comment by: <i>CAA Norway</i></p> <p>ADR.OPS.B.028 Aircraft towing</p> <p>COMMENT: Supported</p>
response	<p>Noted</p> <p>EASA would like to thank you for your support regarding the proposed changes.</p>
comment	<p>646 comment by: <i>Federal Office of Civil Aviation (FOCA), Switzerland</i></p> <p><i>Comment FOCA on ADR.OPS.B.028 (c):</i> Towed aircraft are mainly towed without crew on board. Towed aircraft could be illuminated by spotlights of the tug. Additionally apron flooding lights should already provide sufficient lightning. FOCA suggests to add conditions when lights are really needed (daylight may be sufficient).</p> <p>Proposed new text: (c) ensure that towed aircraft display appropriate lights or are appropriately illuminated during towing operations at night or in adverse weather or meteorological conditions.</p>



response	<p>Noted</p> <p>The lights to be displayed by aircraft is an issue already regulated in SERA.3215 to which the aerodrome rules refer. Therefore, the proposed amendment would not solve the described issue but, on the contrary, would create a consistency problem with the relevant SERA requirements, which have a wider applicability scope and differ from the proposed provisions.</p> <p>EASA recognises the need to address this issue in a manner that takes into account employed practices and current technological evolutions, as well as the provisions of ICAO Annex 2, while ensuring the required level of standardisation and safety. However, because further assessment is required, EASA will address this issue in the context of the AWO task.</p>
comment	<p>707 comment by: <i>Irish Aviation Authority</i></p> <p>Part (c) states: “The aerodrome operator shall ensure that towed aircraft display appropriate lights during towing operations.”</p> <p>It should be noted that certain operators and aircraft tugs are capable of undertaking what is known as: “dark cockpit” towing. No lights are displayed by the aircraft but the tug itself is capable of illuminating the wingtips of up to Code E aircraft with a strobe type light. Consideration should be given by EASA to making the reference broader to encompass these types of operations which are becoming increasingly prevalent subject to EASA being satisfied from a safety perspective with regard to such equipment and operations.</p>
response	<p>Noted</p> <p>The lights to be displayed by aircraft is an issue already regulated in SERA.3215 to which the aerodrome rules refer. Therefore, the proposed amendment would not solve the described issue but, on the contrary, would create a consistency problem with the relevant SERA requirements, which have a wider applicability scope and differ from the proposed provisions.</p> <p>EASA recognises the need to address this issue in a manner that takes into account employed practices and current technological evolutions, as well as the provisions of ICAO Annex 2, while ensuring the required level of standardisation and safety. However, because further assessment is required, EASA will address this issue in the context of the AWO task.</p>
comment	<p>723 comment by: <i>ACI Europe</i></p> <p>ACI EUROPE suggests that the provisions of this IR should be at AMC/GM level and be the operator or contracted operators’ responsibility. Suggest that responsibility for ground handling to be included in future requirements for ground handling (EPAS 2019-2023) especially with regards to points (a), (d) and (e).</p>

	<p>Point (a) not aerodrome operator responsibilities as usually ATC carries out this activity</p> <p>Point (a)(c) Please clarify what “appropriate lights” would mean. It appears a bit counter-intuitive to use GM (see p. 135) to refer to the binding requirements of SERA.3215.</p> <p>Point (b) define ‘adequate and appropriate’, e.g. is CL marking, lighting and DGS, etc...sufficient?</p> <p>Point (c) is a responsibility for airlines in how they operate their aircraft. Within a fleet operating across many airports it makes more sense for the aircraft operation to be common at all airport, not defined differently at each airport – this is a responsibility for the aircraft operators.</p>
response	<p>Partially accepted</p> <p>The text has been reviewed and EASA does not share the view that these provisions are detailed, as they simply define the areas that the procedures need to cover, nor that the aerodrome operator is not responsible for the proposed measures. The proposed measures do not deal with the provision of groundhandling services, which is an issue that will be dealt with in the future.</p> <p>With regard to point (a), please note that it addresses the issue of the identification of suitable routings and establishment of procedures to be followed during towing operations, based mainly on the aircraft characteristics, in order to ensure safety during aircraft towing, including on the apron, or between other areas that are not under the responsibility the ATS provider. This provision, along with the relevant AMC, have been amended, to further clarify what is expected to be taken into account for complying with the requirement.</p> <p>EASA considers that it is not advisable to specify the type of guidance to be provided during towing operations at implementing rule level, given also that this depends on many factors, such as the actual design of the aerodrome, the route that is followed, etc.</p> <p>Regarding the lights to be displayed by aircraft, the text has been amended to directly refer to the relevant SERA requirement, as suggested. With regard to this issue, please note that SERA.3215 is the applicable requirement since it has a wider applicability scope.</p> <p>EASA recognises the need to address this issue in a manner that takes into account employed practices and current technological evolutions, as well as the provisions of ICAO Annex 2, while ensuring the required level of standardisation and safety. However, because further assessment is required, EASA will address this issue in the context of the AWO task.</p>
comment	<p>742</p> <p>comment by: SAS</p>



	Supported
response	Noted EASA would like to thank you for your support regarding the proposed changes.
comment	890 comment by: Aleksandar Ilkovski ADR.OPS.B.028 (a): Swedavias opinion is that it should be operator or contracted operators' responsibility. Suggest that responsibility for ground handling to be included in future requirements for ground handling (EPAS 2019-2023).
response	Noted Point (a) addresses the issue of the identification of suitable routings and establishment of procedures to be followed during towing operations, based mainly on the aircraft characteristics, in order to ensure safety during aircraft towing, including on the apron, or between other areas that are not under the responsibility the ATS provider. This provision, along with the relevant AMC, have been amended, to further clarify what is expected to be taken into account for complying with the requirement. EASA does not share the view that the aerodrome operator is not responsible for the proposed measures, as the measures do not deal with the provision of groundhandling services, which is an issue that will be dealt with in the future.
comment	891 comment by: Aleksandar Ilkovski ADR.OPS.B.028 (d): Swedavias opinion is that it should be operator or contracted operators' responsibility. Suggest that responsibility for ground handling to be included in future requirements for ground handling (EPAS 2019-2023).
response	Noted EASA does not share the view that the aerodrome operator is not responsible for the proposed measures, as the measures do not deal with the provision of groundhandling services, which is an issue that will be dealt with in the future.
comment	892 comment by: Aleksandar Ilkovski ADR.OPS.B.028 (e): Swedavias opinion is that it should be operator or contracted operators' responsibility. Suggest that responsibility for ground handling to be included in future requirements for ground handling (EPAS 2019-2023).
response	Noted

EASA does not share the view that the aerodrome operator is not responsible for the proposed measures, as the measures do not deal with the provision of groundhandling services, which is an issue that will be dealt with in the future.

comment 966 comment by: *Airside safety*

daa seek clarity on the term “appropriate lights” - specialist towing equipment can facilitate dark cockpit towing while ensuring that the aircraft is appropriately lit.

response Accepted

The lights to be displayed by aircraft is an issue already regulated in SERA.3215 to which the proposed rules refer.

EASA recognises the need to address this issue in a manner that takes into account employed practices and current technological evolutions, as well as the provisions of ICAO Annex 2, while ensuring the required level of standardisation and safety. However, because further assessment is required, EASA will address this issue in the context of the AWO task.

comment 970 comment by: *Aerodrome safety regulation departement*

Point a) : the terminology of route is very specific and shouldn't be employed here. the term of "privileged" would suit better.
It could be useful to precise that towing operation exclude push-back for the application of point c) as least.

response Partially accepted

The routes to be designated by the aerodrome operator intend to satisfy their suitability taking into account aircraft characteristics. It is up to the ATS provider, or any other unit responsible for other parts of the aerodrome where the ATS provider is not responsible, to make use of such designated routes, taking into account relevant operational needs. The relevant AMC is reworded to provide more clarity and dedicated guidance is also provided.

The lights to be displayed by aircraft is an issue already regulated in SERA.3215 to which the proposed rules refer.

comment 988 comment by: *Swedish Transport Agency*

Supported.

response Noted

EASA would like to thank you for your support regarding the proposed changes.

comment 1483 comment by: *Brussels Airport Company*



response	<p>Brussels Airport Company is of the opinion that point (a) is not aerodrome operator responsibilities, but mainly an ANSP responsibility. The aerodrome operator will identify which of its facilities are suitable for a certain type of aircraft. The actual routes to be followed should be an ANSP decision taken into account the facilities and operational circumstances.</p> <p>Accepted</p> <p>Point (a) addresses the issue of the identification of suitable routings to be followed during towing operations, based mainly on the aircraft characteristics, in order to ensure safety during aircraft towing, including on the apron, or between other areas that are not under the responsibility of the ATS unit. This provision, along with the relevant AMC, have been amended, to further clarify what is expected to be taken into account for complying with the requirement. The proposed provision is not in conflict with the responsibilities of the ATS provider, which remains responsible for traffic regulation in its areas of responsibility.</p>
comment	<p>1503 comment by: <i>Atle Vivas</i></p> <p>Supported</p>
response	<p>Noted</p> <p>EASA would like to thank you for your support regarding the proposed changes.</p>
comment	<p>1509 comment by: <i>Andreas Herndler, CAA Austria</i></p> <p>Strobe light Systems on towbarless towing trucks is used successfully since many years and avoids the need for technician or cockpit crew.</p> <p>Therefore following adjustments are suggested:</p> <p>(c) ensure that towed aircraft display appropriate lights during towing operations; or alternatively in case of an unmanned aircraft, ensure that towing vehicles are equipped with additional flashing lights (e.g. strobe light system);</p>
response	<p>Noted</p> <p>The lights to be displayed by aircraft is an issue already regulated in SERA.3215 to which the proposed rules refer. Therefore, the proposed amendment would not solve the described issue but, on the contrary, would create a consistency problem with the relevant SERA requirements, which have a wider applicability scope and differ from the proposed provisions.</p> <p>EASA recognises the need to address this issue in a manner that takes into account employed practices and current technological evolutions, as well as the provisions of ICAO Annex 2, while ensuring the required level of standardisation and safety. However, because further assessment is required, EASA will address this issue in the context of the AWO task.</p>



comment	<p>1550 comment by: F. Ehmoser</p> <p>(c) ensure that towed aircraft display appropriate lights during towing operations; or alternatively in case of an unmanned aircraft, ensure that towing vehicles are equipped with additional flashing lights (e.g. strobe light system);</p> <p><i>(c) is in contradiction to practiced practice that with towed aircraft no lighting is activated in the aircraft</i></p> <p><i>Strobe light Systems on towbarless towing trucks is used successfully since many years and avoids the need for technician or cockpit crew.</i></p>
response	<p>Noted</p> <p>The lights to be displayed by aircraft is an issue already regulated in SERA.3215 to which the proposed rules refer. Therefore, the proposed amendment would not solve the described issue but, on the contrary, would create a consistency problem with the relevant SERA requirements, which have a wider applicability scope and differ from the proposed provisions.</p> <p>EASA recognises the need to address this issue in a manner that takes into account employed practices and current technological evolutions, as well as the provisions of ICAO Annex 2, while ensuring the required level of standardisation and safety. However, because further assessment is required, EASA will address this issue in the context of the AWO task.</p>
comment	<p>1559 comment by: Graz Airport</p> <p>(c) ensure that towed aircraft display appropriate lights during towing operations; or alternatively in case of an unmanned aircraft, ensure that towing vehicles are equipped with additional flashing lights (e.g. strobe light system);</p> <p>Strobe light Systems on towbarless towing trucks is used successfully since many years and avoids the need for technician or cockpit crew.</p>
response	<p>Noted</p> <p>The lights to be displayed by aircraft is an issue already regulated in SERA.3215 to which the proposed rules refer. Therefore, the proposed amendment would not solve the described issue but, on the contrary, would create a consistency problem with the relevant SERA requirements, which have a wider applicability scope and differ from the proposed provisions.</p> <p>EASA recognises the need to address this issue in a manner that takes into account employed practices and current technological evolutions, as well as the provisions of ICAO Annex 2, while ensuring the required level of standardisation and safety.</p>

However, because further assessment is required, EASA will address this issue in the context of the AWO task.

comment 1594 comment by: *Airport St. Gallen-Altenrhein - ACH/LSZR*

We would like to suggest amending the current article ADR.OPS.B.028(c) "ensure that towed aircraft display appropriate lights during towing operations;" as follows

"ensure that towed aircraft display appropriate lights or are appropriately illuminated during towing operations at night or in adverse weather or meteorological conditions;"

Justification: At our regional airport 95% of towing is carried out without crew on board and the ground handling have no access to the aircraft. The aircraft are locked and the ground handling can not turn positioning lights on or off. We require an alternative method of illuminating an aircraft during towing to fulfill the article.

response Noted

The lights to be displayed by aircraft is an issue already regulated in SERA.3215 to which the proposed rules refer. Therefore, the proposed amendment would not solve the described issue but, on the contrary, would create a consistency problem with the relevant SERA requirements, which have a wider applicability scope and differ from the proposed provisions.

EASA recognises the need to address this issue in a manner that takes into account employed practices and current technological evolutions, as well as the provisions of ICAO Annex 2, while ensuring the required level of standardisation and safety. However, because further assessment is required, EASA will address this issue in the context of the AWO task.

comment 1744 comment by: *UAF (Union des Aéroports Français)*

UAF support ACI E comment#723

response Noted

Please refer to the reply to comment No 723.

comment 1821 comment by: *SinaJobstHAM*

Die Festlegung von vorgegebenen Routen für Schleppverfahren würde die notwendige Flexibilität einschränken und bringt keinen Mehrwert in Bezug auf Sicherheit. Wir sehen hier ein Verschiebung der Verantwortlichkeiten für Schleppvorgänge vom Groundhandling zum Flughafenbetreiber, der die Umsetzung



	durch Kontrollen abprüfen müsste. Die Verantwortung sollte ganz klar auf Seitens Groundhandling verbleiben. Die Kontrolle der Einhaltung vorgegebener Verfahren durch den Flughafenbetreiber ist nicht notwendig und nicht zu leisten.
response	<p>Noted</p> <p>Point (a) addresses the issue of the identification of suitable routings to be followed during towing operations, based mainly on the aircraft characteristics, in order to ensure safety during aircraft towing, including on the apron, or between other areas that are not under the responsibility of the ATS unit. This provision, along with the relevant AMC, have been amended, to further clarify what is expected to be taken into account for complying with the requirement. The proposed provision is not in conflict with the responsibilities of the ATS provider, which remains responsible for traffic regulation in its areas of responsibility.</p> <p>Moreover, EASA does not share the view that the aerodrome operator is not responsible for the other proposed measures, given that the measures do not deal with the provision of groundhandling services, which is an issue that will be dealt with in the future.</p>

ADR.OPS.B.030 Surface movement guidance and control system

p. 53

comment	<p>24 comment by: <i>Aerodrome safety regulation departement</i></p> <p>Point c) : The aerodrome operator is not qualified to assess the needs and determine procedures in case of use of a transponder. The ANSP is the qualified entity to make this assessment and establish procedures with the aircraft operators. The responsibility of the aerodrome operator should be limited to an appropriate coordination with ANSP.</p>
response	<p>Noted</p> <p>Please note that the aerodrome operator is already responsible for ensuring the provision of the SMGCS at the aerodrome. The potential lack of expertise by an aerodrome operator in this area may, as in other cases, be compensated in many ways. In any case, coordination with the ATS provider is required, as the measures may also affect areas which are under the operational responsibility of the aerodrome operator.</p>
comment	<p>248 comment by: <i>Gatwick Airport</i></p> <p>Agree. No comment</p>
response	<p>Noted</p>
comment	<p>376 comment by: <i>Zurich Airport</i></p>



response	<p>Zurich Airport has evaluated the pro's and con's of standard routes and came to the conclusion, that there is no safety benefit and even more a restriction for the Apron Controller at the expense of flexibility. Moreover the vehicles on the manoeuvring area are equipped with transponders and are in radio contact with the controller unit. From this point of view standard routes are not needed.</p> <p>Noted</p> <p>The proposed provision does not impose the development of routes, but rather the evaluation of the need, recognising the fact that aerodromes may offer different operating environments.</p>
comment	<p>612 comment by: CAA Norway</p> <p>ADR.OPS.B.030 Surface movement guidance and control system</p> <p>COMMENT: Must be coordinated with the outcome of NPA 2018-6 (D).</p> <p>RATIONALE: NPA 2018-6 (D) introduces changes to this paragraph as well.</p> <p>COMMENT/RATIONALE: Item (b) last sentence 'and that relevant information is provided to the aeronautical information services provider.' The sentence should be modified, as the objective must be to have the information promulgated/published, see for example ADR.OPS.B.035(b) (p 56) or AMC1 ADR.OPS.B.030 (b), p 136.</p> <p>The comment is intended to ensure consistency of language.</p>
response	<p>Accepted</p> <p>The text has been amended to make clear that the information needs to be published in the AIP. The final text is coordinated with the text of NPA 2008-06 (AWO); however, for this NPA, the existing text of Regulation (EU) No 139/2014 was taken as reference.</p>
comment	<p>743 comment by: SAS</p> <p>Supported</p>
response	<p>Noted</p> <p>EASA would like to thank you for your support regarding the proposed changes.</p>
comment	<p>806 comment by: Aena Aeropuertos, S.A.</p> <p>* We consider that the airbridges are aerodrome design items with very limited mobility, since they are part of the terminal building, so we think that the specifications related to their lighting should be reminded in ADR-DSN and not in OPS.</p>

response	<p>Noted</p> <p>There is no actual impact from this change.</p>
comment	<p>990 comment by: <i>Swedish Transport Agency</i></p> <p>COMMENT: Must be coordinated with the outcome of NPA 2018-6 (D).</p> <p>RATIONALE: NPA 2018-6 (D) introduces changes to this paragraph as well.</p> <p>COMMENT/RATIONALE: Item (b) last sentence ‘and that relevant information is provided to the aeronautical information services provider.’ The sentence should be modified, as the objective must be to have the information promulgated/published, see for example ADR.OPS.B.035(b) (p 56) or AMC1 ADR.OPS.B.030 (b), p 136. The comment is intended to ensure consistency of language.</p>
response	<p>Accepted</p> <p>The text has been amended to make clear that the information needs to be published in the AIP. The final text is coordinated with the text of NPA 2008-06 (AWO); however, for this NPA, the existing text of Regulation (EU) No 139/2014 was taken as reference.</p>
comment	<p>1498 comment by: <i>Brussels Airport Company</i></p> <p>Brussels Airport Company does not agree that standard taxi routes are an aerodrome operator responsibility. The aerodrome operator provides the facilities (and information about them) on which the ANSP can control the movement of aircraft.</p> <p>Proposal to keep the existing point (a) and to relocate the proposed points (b) and (c) to GM.</p>
response	<p>Noted</p> <p>Please note that the aerodrome operator is already responsible for ensuring the provision of the SMGCS at the aerodrome. Standard taxi routes are developed in the context of the SMGCS.</p>
comment	<p>1507 comment by: <i>Atle Vivas</i></p> <p>ADR.OPS.B.030 Surface movement guidance and control system</p> <p>COMMENT: Must be coordinated with the outcome of NPA 2018-6 (D).</p> <p>RATIONALE: NPA 2018-6 (D) introduces changes to this paragraph as well.</p> <p>COMMENT/RATIONALE: Item (b) last sentence ‘and that relevant information is provided to the aeronautical information services provider.’ The sentence should be modified, as the objective must be to have the information</p>



response	<p>promulgated/published, see for example ADR.OPS.B.035(b) (p 56) or AMC1 ADR.OPS.B.030 (b), p 136.</p> <p>The comment is intended to ensure consistency of language.</p> <p>Accepted</p> <p>The text has been amended to make clear that the information needs to be published in the AIP. The final text is coordinated with the text of NPA 2008-06 (AWO); however, for this NPA, the existing text of Regulation (EU) No 139/2014 was taken as reference.</p>
comment	<p>1517 comment by: <i>Andreas Herndler, CAA Austria</i></p> <p>Transponder operating procedures are developed by ATS.</p> <p>Therefore following adjustments are suggested: delete the responsibility of the aerodrome operator for transponder operating procedures</p>
response	<p>Noted</p> <p>Please note that the aerodrome operator is already responsible for ensuring the provision of the SMGCS at the aerodrome. In any case, coordination with the local ATS provider is required, as the measures may also affect areas which are under the operational responsibility of the aerodrome operator.</p>
comment	<p>1565 comment by: <i>Graz Airport</i></p> <div style="border: 1px solid black; padding: 5px; margin: 5px 0;"> <p>delete the responsibility of the aerodrome operator for transponder operating procedures</p> </div> <div style="border: 1px solid black; padding: 5px; margin: 5px 0;"> <p>Transponder operating procedures are developed by ATS</p> </div>
response	<p>Noted</p> <p>Please note that the aerodrome operator is already responsible for ensuring the provision of the SMGCS at the aerodrome. In any case, coordination with the ATS provider is required, as the measures may also affect areas which are under the operational responsibility of the aerodrome operator.</p>
comment	<p>1607 comment by: <i>F. Ehmoser</i></p> <p>Delete</p> <p><i>Transponder operating procedures are developed by ATS</i></p>



response	Noted
	Please note that the aerodrome operator is already responsible for ensuring the provision of the SMGCS at the aerodrome. In any case, coordination with the ATS provider is required, as the measures may also affect areas which are under the operational responsibility of the aerodrome operator.
comment	1903 comment by: <i>Copenhagen Airports A/S</i>
	Subject: (a) and (b) Proposal: Rephrase (a) with 'in coordination with air traffic services provider'. Move (b) and (c) to AMC and GM. Justification: Requirements (b) should be AMC for aerodromes without standard taxi routes and GM for aerodromes with existing standard taxi routes. Aerodromes with existing taxi routes have already the obligation to coordinate with ATS and provide information to AIS (AMC1 ADR.OPS.A.015).
response	Noted
	The proposed provision does not impose the development of routes, but rather the evaluation of the need, in coordination with the ATS provider, recognising the fact that aerodromes may offer different operating environments.

ADR.OPS.B.031 Communications

p. 54

comment	218 comment by: <i>GdF</i>
	To reduce the number of runway-safety-related accidents and serious incidents involving runway incursions, but also other runway-safety-related event all traffic must be aware of each other, so all r/t must be accomplished on one frequency, on which all participants are able to listen to movements of other traffic. E.g. landing aircraft would be able to hear a clearance for cars on the landing runway. Additional, switching between two radios can lead to delayed reaction and head-down time, both of which should be avoided. (1) the ATS frequencies and the language(s) to be used for communication between the air traffic services unit and vehicles intending to operate or operating on the manoeuvring area;
response	Noted
	The proposed provision implies the ATS frequencies and should be read in conjunction with the other provisions which dictate the actions of the vehicle drivers. The text does not exclude the suggested solution, which is something that can be agreed upon between the parties, when the necessary prerequisites are implemented.



comment	249	comment by: <i>Gatwick Airport</i>
	(b) (4) "Signals to be used" should include other means of communication such as mobile telephone, hand held radio?	
response	Partially accepted The text has been amended to provide more options.	
comment	515	comment by: <i>UK CAA</i>
	Page No: 54	
	Paragraph No: ADR.OPS.B.031	
	Comment: We recommend sections (a) and (b) should be combined, and sub sections (1) to (4) removed to AMC	
	Justification: There has always been an overriding principle in the Aerodrome regulations that the IR would be a high level requirement and any specific detail would be AMC or GM.	
response	Noted The proposed text has been reviewed and it is found that it is at the appropriate level for the development of a relevant framework, which ensures the necessary clarity, the required legal certainty and enforceability.	
comment	610	comment by: <i>Aerodrome safety regulation departement</i>
	In SERA, signals mentioned in OPS.B.031 b) 4) and depicted in GM1 OPS.B.031 b)4) are dedicated to the communication between pilots and ATS in case of communication failure, not to communication with the ground. For more flexibility, the possibility of using other means of transmission with vehicles and pedestrians should be opened. We propose the alternative wording to b) 4) :	
	b)4) "signals or any appropriate local means of transmission allowing the air traffic services to reach vehicles and pedestrians rapidly on the manoeuvring area in cas of radio communication failure"	
response	Partially accepted The proposed text is based on the text of paragraph 7.6.3.2 of PANS-ATM, which concerns the control of 'other than aircraft traffic'; therefore, being applicable to vehicle and personnel. In any case, the text has been modified, to also allow alternative, agreed ways of communication.	
comment	613	comment by: <i>CAA Norway</i>

	ADR.OPS.B.031 Communications	
	COMMENT: Supported	
response	Noted	
	EASA would like to thank you for your support regarding the proposed changes.	
comment	724	comment by: <i>ACI Europe</i>
	Points (b)(1) to (4) should be at GM level.	
response	Noted	
comment	744	comment by: <i>SAS</i>
	Supported	
response	Noted	
	EASA would like to thank you for your support regarding the proposed changes.	
comment	801	comment by: <i>ENAIRE</i>
	<ul style="list-style-type: none"> • ADR.OPS.B.031. Regulations do not seem to protect against situation where both aircraft and vehicles operating in the same area are using different frequencies. “One area, one frequency” principle should be maintained to prevent segregating vehicles to different frequencies as an operational baseline. Vehicles within RWY strips or in the vicinity should be in the same frequency as the ATS frequency controlling that area. 	
response	Noted	
	The proposed provision does not exclude this possibility, as this is something that can be agreed with between the parties, when the prerequisites that this comment implies are implemented.	
comment	991	comment by: <i>Swedish Transport Agency</i>
	Supported.	
response	Noted	
	EASA would like to thank you for your support regarding the proposed changes.	
comment	1376	comment by: <i>Andreas Herndler, CAA Austria</i>
	to be deleted, as this is a task of ANSP	



response Not accepted

The development of procedures for communication between the two organisations concerns equally the aerodrome operator, which is responsible for the safe operation of the aerodrome in accordance with the provisions of Regulation (EU) No 139/2014 and the essential requirements of Regulation (EU) 2018/1139.

comment 1401 comment by: *European Transport Workers Federation - ETF*

Page 54 + page 137

ADR.OPS.B.031

The aerodrome operator shall, in coordination with the air traffic services provider, establish communication procedures, including :

(4) signals to be used, in all visibility conditions, in the case of radio communication failure between the air traffic services unit and vehicles or pedestrians on the manoeuvring area

B.031 and the GM B.031 are not covering the case when a radio communication failure occurs during operations on the manoeuvring area.

A specific GM should cover it to recommend the suspension of other movements on the airport as appropriate.

response Noted

The specific provision concerns the communication procedures to be followed in the event of a radio communication failure. Additional actions may be taken depending on the operating conditions, level of traffic, etc. Your comment will be assessed in a separate context, given that such actions are normally initiated by the ATS provider and not by the aerodrome operator, while admittedly there must be coordination between the two actors.

comment 1508 comment by: *Atle Vivas*

Supported

response Noted

EASA would like to thank you for your support regarding the proposed changes.

comment 1599 comment by: *F. Ehmoser*

Delete



	<i>To be deleted, as this is a task of ANSP</i>
response	<p>Not accepted</p> <p>The development of procedures for communication between the two organisations concerns equally the aerodrome operator, which is responsible for the safe operation of the aerodrome in accordance with the provisions of Regulation (EU) No 139/2014 and the essential requirements of Regulation (EU) 2018/1139.</p>
comment	<p>1728 comment by: ENAC Italy</p> <p>(a) Communication between vehicles and the air traffic services unit shall be in accordance with the applicable requirements of Section 14 of the Annex to the Regulation (EU) No 923/2012.</p> <p>Justification Delete point (a) as already contained in SERA, or move it into GM</p> <p>Duplication of regulation has too many shortcomings, well described in the general part of the comments.</p> <p>Nothing prevents that for information purposes, it is duplicated or referred in the related GM</p>
response	<p>Noted</p> <p>The proposed provision addresses specifically vehicle drivers, and as such, it is specific, while its inclusion in Regulation (EU) No 139/2014 does not create any problem (similar approach is applied in the case of ATM/ANS area).</p>
comment	<p>1729 comment by: ENAC Italy</p> <p>(b a) The aerodrome operator shall, in coordination agreement with the air traffic services provider, establish communication procedures, including:</p> <p>(1) the frequencies and the language(s) to be used for communication between the air traffic services unit and vehicles intending to operate or operating on the manoeuvring area;</p> <p>(2) communication between the air traffic services unit and pedestrians intending to operate or operating on the manoeuvring area;</p> <p>(3) dissemination of significant aerodrome-related information that may affect the safety of operations on the manoeuvring area, using radio communications; and</p> <p>(4) signals to be used, in all visibility conditions, in the case of radio communication failure between the air traffic services unit and vehicles or pedestrians on the manoeuvring area.</p> <p>Justification Point (b)(1)(2) and (3) are strict responsibility of the Air Traffic Service provider, therefore the task cannot be put under the direct responsibility of Airport Operator</p>
response	<p>Not accepted</p>



The development of the relevant procedures concerns equally the aerodrome operator, which has also the responsibility for the safe operation of the aerodrome in accordance with the provisions of Regulation (EU) No 139/2014 and the essential requirements of Regulation (EU) 2018/1139. Please also note that in EASA Opinion No 03/2018 (Requirements for Air Traffic Services) similar provisions for coordination between the aerodrome operator and the air traffic service provider are proposed.

comment 1745 comment by: *UAF (Union des Aéroports Français)*
UAF support ACI E comment#724

response Noted
Please refer to the reply to comment No 724.

comment 1858 comment by: *Danish Transport, Construction and Housing Authority*
Supported

response Noted
EASA would like to thank you for your support regarding the proposed changes.

comment 1892 comment by: *Copenhagen Airports A/S*
Subject: (b)(4)
Proposal: Rephrase without the use of 'signal to be used' and only use the wording 'procedure in place'.
Justification: Requirements regarding signals is to binding. Other mitigations can be used as radio failure procedures. Rationale aims to cover recommendation in EAPRI.

response Partially accepted
Signals to be used are foreseen in PANS-ATM. The text has been amended to include additional possibilities.

comment 1944 comment by: *European Cockpit Association*
ADR.OPS.B.031 Communications (RMT.0703)
(a) Communication between vehicles and the air traffic services unit shall be in accordance with the applicable requirements of Section 14 of the Annex to the Regulation (EU) No 923/2012.
(b) The aerodrome operator shall, in coordination with the air traffic services provider, establish communication procedures, including:
(1) the frequencies and the language(s) to be used for communication between the air traffic services unit and vehicles intending to operate or operating on the manoeuvring area;



	ECA's comment: There should be only one frequency for all traffic and vehicles on the Runway. The language used should be English.
response	Noted The proposed provision does not exclude this possibility, as this is something that can be agreed with between the parties, when the prerequisites that this comment implies are implemented.

ADR.OPS.B.033 Control of pedestrians

p. 55-56

comment	26 comment by: <i>Aerodrome safety regulation departement</i> Point b)2) iii) : the current wording of this provision may prohibit essential actions of inspections which require that drivers get out of their car to do some checks or maintenance actions (such as GRF inspections or change in lights). Some flexibility should be introduce to allow the essential inspections and checking even in LVP under conditions (no movement on the platform..)
response	Noted The proposed text concerns entry of pedestrians (not drivers) in the manoeuvring area when low-visibility procedures are in effect.
comment	219 comment by: <i>GdF</i> To reduce the number of runway-safety-related accidents and serious incidents involving runway incursions, but also other runway-safety-related event all traffic must be aware of each other, so all r/t must be accomplished on one frequency, on which all participants are able to listen to movements of other traffic. E.g. landing aircraft would be able to hear a clearance for cars on the landing runway. Additional, switching between two radios can lead to delayed reaction and head-down time, both of which should be avoided. (i) are properly equipped, including with high-visibility clothing, orientation means, and means allowing two-way communication with the air traffic services unit on the appropriate ATS frequency and the respective unit of the aerodrome operator during such operations;
response	Noted The text needs to cater for additional communication means.
comment	250 comment by: <i>Gatwick Airport</i> Agree. No comment



response	Noted
comment	<p>389 comment by: <i>Federal Ministry of Transport Germany, Aerodrome Department</i></p> <p>Die geplante Implementierung von Regelungen des Fußgängerverkehrs auf den Flugbetriebsflächen wird begrüßt. Dies bezieht sich insbesondere auf Regelungen im Fall von CAT II/III Betrieb. Für die Schulung von Nicht-Fahrzeugführern auf Flugbetriebsflächen wird eine Integration in die Safety-Schulung als das geeignete Mittel erachtet.</p>
response	Noted
comment	<p>516 comment by: <i>UK CAA</i></p> <p>Page No: 55</p> <p>Paragraph No: ADR.OPS.B.033</p> <p>Comment: We recommend sections (a) and (b) should be combined, and their respective sub sections made into AMC</p> <p>Justification: There has always been an overriding principle in the Aerodrome regulations that the IR would be a high level requirement and any specific detail would be AMC or GM.</p>
response	<p>Noted</p> <p>The text has been reviewed and it is found that the proposed provisions are already at the appropriate level, as they simply define what should be the objective of the procedures that the aerodrome operator needs to develop, as well as the actions that are expected to be performed.</p>
comment	<p>614 comment by: <i>CAA Norway</i></p> <p>ADR.OPS.B.033 Control of pedestrians COMMENT: Supported</p>
response	<p>Noted</p> <p>EASA would like to thank you for your support regarding the proposed changes.</p>
comment	<p>643 comment by: <i>CAA-NL</i></p> <p>ADR.OPS.B.033 – Control of pedestrians</p>



response	<p>CAA Netherlands gives into consideration to shift the text from (2) and further to the level of AMC.</p> <p>Noted</p> <p>The text has been reviewed and it is found that the proposed provisions are already at the appropriate level, as they simply define what should be the objective of the procedures that the aerodrome operator needs to develop, as well as the actions that are expected to be performed.</p>
comment	<p>725 comment by: <i>ACI Europe</i></p> <p>General Comment: This IR should remain at GM level.</p> <p>ACI Europe proposes to delete section (a)(2) of ADR.OPS.B.033.</p> <p>Rationale: ADR.OR.D.017, sections (b) and (c) are sufficiently detailed and additional requirements (as proposed in ADR.OPS.B.033 (a)(2)) would result in double regulation.</p> <p>For information purposes please find attached the relevant content of ADR.OR.D.017:</p> <p>(b) The aerodrome operator shall ensure that unescorted persons operating on the movement area or other operational areas of the aerodrome are adequately trained.</p> <p>(c) The aerodrome operator shall ensure that persons referred to in points (a) and (b) above have demonstrated their capabilities in the performance of their assigned duties through proficiency check at adequate intervals to ensure continued competence.</p> <p>Point (a)(3) The use of the word ‘escorted’ in point (a)(3) may suggest that each passenger shall be escorted. Suggestion is to change the sentence into the following: ‘...to walk across the apron are under supervision of trained and competent personnel.’</p> <p>Note: In chapter 6 of the IATA Ground Operations Manual (IGOM) the terms ‘supervision’ and ‘oversight’ are used related to the passenger embarkation/disembarkation process.</p>
response	<p>Not accepted</p> <p>The text has been reviewed and it is found that the proposed provisions are already at the appropriate level, as they simply define what should be the objective of the procedures that the aerodrome operator needs to develop, as well as the actions that are expected to be performed. Moreover, they are based on the relevant content of the essential requirements of Annex VII to Regulation (EU) 2018/1139.</p> <p>With regard to the content of (a)(2) which is proposed to be deleted, please note that the proposed provision is about the control of the activities of the pedestrians, while requirement ADR.OR.D.017 is about the development and implementation of a training programme. Therefore, the two subjects are not related.</p>



comment	745	comment by: SAS
	Supported	
response	Noted	
	EASA would like to thank you for your support regarding the proposed changes.	
comment	895	comment by: Aleksandar Ilkovski
	ADR.OPS.B.033 (a)(3): Swedavia suggest that 'monitored by' would be a better wording to use here.	
response	Not accepted	
	The proposed provisions have been reviewed and are in line with the essential requirements of Annex VII to Regulation (EU) 2018/1139. Please refer also the reply to comment No 725.	
comment	898	comment by: Aleksandar Ilkovski
	ADR.OPS.B.033 (b)(2)(iii): Suggest new wording of sentence; do not enter the manoeuvring area according to established low-visibility procedures.	
response	Noted	
comment	992	comment by: Swedish Transport Agency
	Supported.	
response	Noted	
	EASA would like to thank you for your support regarding the proposed changes.	
comment	1033	comment by: Danish Transport, Construction and Housing Authority
	Supported	
response	Noted	
	EASA would like to thank you for your support regarding the proposed changes.	
comment	1387	comment by: UAF (Union des Aéroports Français)
	(a)(3) for airport operator this rules is not easy to implement. In most of the cases, embarking/desembarking is under GHSP responsibility, and airport operator has not the power to enforce such measure.	
	UAF fully support ACI E comment#725	

response	<p>Noted</p> <p>The proposed provisions have been reviewed and are in line with the essential requirements of Annex VII to Regulation (EU) 2018/1139. Please refer also the reply to comment No 725.</p>
comment	<p>1426 comment by: CAA Finland</p> <p>Point (a)(3) should the sentence :</p> <p>“control the movement of persons on the apron, and ensure that passengers embarking/disembarking an aircraft or need to walk across the apron are escorted by trained and competent personnel”</p> <p>be changed to:</p> <p>“control the movement of persons on the apron, and ensure that passengers embarking/disembarking an aircraft or need to walk across the apron are under supervision of trained and competent personnel.”</p>
response	<p>Noted</p> <p>The proposed provisions have been reviewed and are in line with the essential requirements of Annex VII to Regulation (EU) 2018/1139.</p>
comment	<p>1512 comment by: Atle Vivas</p> <p>Supported</p>
response	<p>Noted</p> <p>EASA would like to thank you for your support regarding the proposed changes.</p>
comment	<p>1921 comment by: Copenhagen Airports A/S</p> <p>Subject: (a)(3). Proposal: Move the wording 'and ensure that passengers embarking/disembarking an aircraft or need to walk across the apron are escorted by trained and competent personnel' to GM. Justification: Security requirement covers the same issues, but is not as binding as the current proposal. for safety Using the wording of having personnel reduces the possibilities to use other methods like surveillance cameras, physical barriers etc.</p>
response	<p>Noted</p> <p>The proposed provisions have been reviewed and are in line with the essential requirements of Annex VII to Regulation (EU) 2018/1139.</p>
comment	<p>1945 comment by: European Cockpit Association</p>



	ADR.OPS.B.033 (a)(3) ECA's comment: Control of the (dis)embarking passengers should not be limited to escorting them but should comprise mandatory physical barriers for crowd control.
response	Partially accepted The text has been enriched and amended to address the proposal.

ADR.OPS.B.035 Operations in winter conditions

p. 56-57

comment	251 Agree. No further comment	comment by: <i>Gatwick Airport</i>
response	Noted EASA would like to thank you for your support regarding the proposed changes.	
comment	252 No comment	comment by: <i>Gatwick Airport</i>
response	Noted	
comment	310 ADR.OPS.B.035 Operations in winter conditions p 56/207 (a) and (b) The proposed wording is correct, however, winter operations should be dealt with in a separate document. Rationale It is not only about runway safety, it is about the safety of ground operations in general at aerodromes, on aprons, on taxiways, on runways.	comment by: <i>European Powered Flying Union</i>
response	Noted	
comment	563 Practical Training programme for winter operations is lacking totally. I propose training under real snow conditions. E.g snow blower trucks, with sweepers and sanding/spreaders etc Practical training according to the snowplan, not just list the requirements...	comment by: <i>Jan Kristensen</i>



	Also the theory for group driving according to a snow removal plan for the airport must be mandatory. How can airports be prepared if they have no training before the winter season starts?
response	Noted The requirements of the training programme are referenced in another part of the Regulation (ADR.OR.D.017).
comment	592 comment by: <i>ADV - German Airports Association</i> (a) (2) ICAO SARPS provide a sufficient framework for prioritising runways over aprons in removing contaminants. This is lost in (a) (2), thus creating a safety hazard.
response	Accepted Point (a)(2) is revised to include the ‘runways in use’.
comment	615 comment by: <i>CAA Norway</i> ADR.OPS.B.035 Operations in winter conditions COMMENT: Supported
response	Noted EASA would like to thank you for your support regarding the proposed changes.
comment	746 comment by: <i>SAS</i> Supported
response	Noted EASA would like to thank you for your support regarding the proposed changes.
comment	993 comment by: <i>Swedish Transport Agency</i> Supported.
response	Noted EASA would like to thank you for your support regarding the proposed changes.
comment	1034 comment by: <i>Danish Transport, Construction and Housing Authority</i> Supported
response	Noted



	EASA would like to thank you for your support regarding the proposed changes.	
comment	1360	comment by: <i>Wideroe Flyveselskap AS</i>
	Supported.	
response	Noted	
	EASA would like to thank you for your support regarding the proposed changes.	
comment	1407	comment by: <i>Norwegian Air (Norwegian Air Norway, Norwegian Air International, Norwegian Air UK and Norwegian Air Shuttle)</i>
	Supported.	
response	Noted	
	EASA would like to thank you for your support regarding the proposed changes.	
comment	1514	comment by: <i>Atle Vivas</i>
	Supported	
response	Noted	
	EASA would like to thank you for your support regarding the proposed changes.	
comment	1805	comment by: <i>ACI Europe</i>
	Point (b)(3) was introduced in SIB early 2018. Now lifted to IR material!! This may be relevant for some aerodromes with prolonged winter periods, but not for the majority of the aerodromes.	
response	Noted	
	The requirement is applicable to all aerodromes; however, if an aerodrome is not exposed to weather conditions that require the use of materials for surface treatment, this information is not provided.	
comment	1946	comment by: <i>European Cockpit Association</i>
	ADR.OPS.B.035 Operations in winter conditions (RMT.0704)	
	The aerodrome operator shall provide for publication in the Aeronautical Information Publication (AIP) information regarding: (1) the availability of equipment for snow removal and snow and ice control operations	



	<p>ECA's comment: What would be the format for this? What would be the operational significance to personnel concerned with flight operations? Which items should be extracted from any snow plan? Rationale: For pilots, when selecting airports, it is sufficient to know that this equipment exists.</p> <p>Additional ECA's comment: include frost.</p>
response	<p>Noted</p> <p>The way the information is presented in the AIP is in accordance with ICAO Annex 15 and PANS-AIM, as transposed in the EU regulatory framework by Opinion No 02/2018.</p>

ADR.OPS.B.036 Operations on specially prepared winter runways

p. 57-58

comment	<p>253 comment by: <i>Gatwick Airport</i></p> <p>No comment</p>
response	<p>Noted</p>
comment	<p>311 comment by: <i>European Powered Flying Union</i></p> <p>ADR.OPS.B.036 Operations on specially prepared winter runways p 57/207 (d)</p> <p>Please add (4) apply other colours than white to mark runways, taxiways, aprons.</p> <p>Rationale White does not well fit with winter operations, there is a distinct lack of contrast.</p>
response	<p>Not accepted</p> <p>Runway markings are always white. The use of other colours is prohibited because it may lead to runway incursions.</p>
comment	<p>323 comment by: <i>John Hamshare (Heathrow)</i></p> <p>Page 58 ADR.OPS.B.080 (b) (1) is a very important exemption – there would be many practical difficulties if this was removed.</p>
response	<p>Noted</p>
comment	<p>483 comment by: <i>AIRBUS</i></p> <p>Please make the following modifications of clarifications:</p>



	<p>In paragraph (a), it says “Specially prepared winter runways shall be associated with primary RWYCC 4”. “May be associated” would be better, as the “shall” indicates an obligation. The aerodrome operator may wish to opt out of reporting a specially prepared winter runway as such even if he has qualified for it. Paragraph (b)(1)(i) suggests that the only way of achieving a “Specially Prepared Winter Runway” is to apply some material. However, in more appropriate climates, the same results may be achieved by “working” the ice without application of any “material”. A way of addressing this would be to reformulate to “the type of tools and/or material...”</p> <p>Paragraph (b)(1)(ii) reads a bit strangely next to the other points. It may be appropriate to change to “Monitoring of the meteorological parameters...”, which actually indicates a process.</p>	
response	Accepted	
comment	616	comment by: CAA Norway
	<p>ADR.OPS.B.036 Operations on specially prepared winter runways COMMENT: Supported</p>	
response	Noted	EASA would like to thank you for your support regarding the proposed changes.
comment	747	comment by: SAS
	Supported	
response	Noted	EASA would like to thank you for your support regarding the proposed changes.
comment	994	comment by: Swedish Transport Agency
	Supported.	
response	Noted	EASA would like to thank you for your support regarding the proposed changes.
comment	1361	comment by: Wideroe Flyveselskap AS
	Supported.	
response	Noted	EASA would like to thank you for your support regarding the proposed changes.



comment	1409	comment by: <i>Norwegian Air (Norwegian Air Norway, Norwegian Air International, Norwegian Air UK and Norwegian Air Shuttle)</i>
	Supported.	
response	Noted EASA would like to thank you for your support regarding the proposed changes.	
comment	1516	comment by: <i>Atle Vivas</i>
	Supported	
response	Noted EASA would like to thank you for your support regarding the proposed changes.	
comment	1859	comment by: <i>Danish Transport, Construction and Housing Authority</i>
	Supported	
response	Noted EASA would like to thank you for your support regarding the proposed changes.	
comment	1895	comment by: <i>IATA</i>
	IATA / FEDEX Comment : Concern over the differences with the US TALPA. . A way around the issue of continued contaminated runways during winter to not restrict their upgrade capability to just a 3.	
response	Noted	
comment	1947	comment by: <i>European Cockpit Association</i>
	ADR.OPS.B.036 Operations on specially prepared winter runways (RMT.0704) ECA's comment: Remove	
	Rationale: Is it not necessary to introduce this at European IR level. According to ECA's information, Norway is the only country affected. If that is the case, there is no benefit in introducing this at European level compared with a national derogation for Norway. These procedures are very specific and go into great detail. Listing them in an NPA means that all concerned by the upcoming opinion would have to be familiar with these details especially on the operator side. There would be no obligation for Norwegian airports to specifically inform airplane operators as all of this would then be common European knowledge. ECA suggest to remove this content and treat it at national Norwegian level. This was discussed multiple times in FTF. Upgrade can be done if an inspection takes place and RWYCC is found to be 4 for example. However, just sanding does not guarantee RWYCC 4. Special treatment should be defined in	

	<p>the aerodrome snow plan and should not be a universal/European standard that automatically allows upgrading. There is a reason for ICAO NOT supporting upgrade of RWYCC from 0 or 1 beyond 3! Note that this is stated clearly also on p.152. Norwegian overrun incident/accident statistics also support this.</p>
response	<p>Noted</p> <p>In regard to the introduction of operations on specially prepared winter runways, please refer to the response to your previous comment.</p> <p>ICAO, indeed, does not support upgrade of RWYCC from 0 or 1 beyond 3; however, experience from operation on special prepared winter runways has demonstrated that following a specific treatment, a better than 3 RWYCC could be achieved.</p>

ADR.OPS.B.037 Assessment of runway surface condition and assignment of runway condition code	p. 58
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comment	<p>29 comment by: <i>Aerodrome safety regulation departement</i></p> <p>We would find the reading of the requirement more comprehensible and logical if point a) and point b) were switched.</p>
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response	<p>Not accepted</p> <p>Point (a) refers to the obligation of the aerodrome operator to assign a RWYCC, while point (b) refers to the obligation to re-assess the runway surface conditions and assign a new RWYCC when meteorological conditions have changed.</p>
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comment	<p>254 comment by: <i>Gatwick Airport</i></p> <p>No comment</p>
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response	<p>Noted</p>
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comment	<p>302 comment by: <i>Finnair</i></p> <p>Point (a) states that "The aerodrome operator shall assign a RWYCC based on the type and depth of the contaminant."</p> <p>COMMENTS: This wording should be changed to cater for the use of friction measurement devices for a possible upgrade or downgrade of the RWYCC based on measurements with the said device. It is of utmost importance for northern operators to get accurate and valid information about the possibly better or worse braking capabilities of the runway, which can not only be assessed by the reporting of the type and depth of the contaminant. Upgrading (from RWYCC 0 or 1 to max RWYCC3) or downgrading from all depth/type based RWYCCs must be allowed and included in the wording.</p>
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response	<p>PROPOSITION: Finnair proposes to change to wording to: "The aerodrome operator shall assign a RWYCC based on the type and depth of the contaminant also including the possible effect of RWYCC downgrade or upgrade".</p> <p>Noted</p> <p>The notion of upgrade/downgrade of the RWYCC is expressed in point (b).</p> <p>Procedures for upgrading/downgrading the RWYCC are detailed in AMC1 ADR.OPS.B.037(b).</p>
comment	<p>617 comment by: CAA Norway</p> <p>ADR.OPS.B.037 Assessment of runway surface condition and assignment of runway condition code</p> <p>COMMENT: In (c) use the term <i>SPECIAL AIR-REPORT or AIREP</i> instead of 'pilot report'</p> <p>RATIONALE: See General comment (editorial). Ensure commonality within EASA documentation, for example Opinion 2/2019 and the 373 regulation with associated annexes.</p>
response	<p>Accepted</p>
comment	<p>727 comment by: AIRBUS</p> <p>In order to be exhaustive, Airbus suggests to modify Paragraph (a) as follows:</p> <p>"The aerodrome operator shall assign a RWYCC based on the type and depth of the contaminant and temperature."</p>
response	<p>Accepted</p>
comment	<p>748 comment by: SAS</p> <p>Supported</p>
response	<p>Noted</p> <p>EASA would like to thank you for your support regarding the proposed changes.</p>
comment	<p>824 comment by: Aena Aeropuertos, S.A.</p> <p>* AMC1 ADR.OPS.B.037(a) The intention with which the table is set is not clear. * GM2 ADR.OPS.037(b) (pg. 151) Is it "upgrading COMPACTED SNOW" an errata? If so, remove.</p>
response	<p>Noted</p> <p>The RCAM is the basic table for assigning the RWYCC.</p>



comment	<p>894 comment by: <i>Nordic Regional Airlines</i></p> <p>Point (a) states that "The aerodrome operator shall assign a RWYCC based on the type and depth of the contaminant."</p> <p>COMMENTS: This wording should be changed to cater for the use of friction measurement devices or other approved means for a possible upgrade or downgrade of the RWYCC. It is of utmost importance to get accurate and valid information about the possibly better or worse braking capabilities of the runway, which can not only be assessed by the reporting of the type and depth of the contaminant. Upgrading (from RWYCC 0 or 1 to max RWYCC3) or downgrading from all depth/type based RWYCCs must be allowed and included in the wording.</p> <p>PROPOSAL: Norra proposes to change to wording to: "The aerodrome operator shall assign a RWYCC based on the type and depth of the contaminant also including the possible effect of RWYCC downgrade or upgrade".</p>
response	<p>Noted</p> <p>The notion of upgrade/downgrade of the RWYCC is expressed in point (b).</p> <p>Procedures for upgrading/downgrading the RWYCC are detailed in AMC1 ADR.OPS.B.037(b).</p>
comment	<p>995 comment by: <i>Swedish Transport Agency</i></p> <p>COMMENT: In (c) use the term <i>SPECIAL AIR-REPORT</i> or <i>AIREP</i> instead of 'pilot report'</p> <p>RATIONALE: See General comment (editorial). Ensure commonality within EASA documentation, for example Opinion 2/2019 and the 373 regulation with associated annexes.</p>
response	<p>Accepted</p>
comment	<p>1036 comment by: <i>Danish Transport, Construction and Housing Authority</i></p> <p>Support CAA Norway</p> <p>COMMENT: In (c) use the term <i>SPECIAL AIR-REPORT</i> or <i>AIREP</i> instead of 'pilot report'</p> <p>RATIONALE: See CAA Norway general comment (editorial). Ensure commonality within EASA documentation, for example Opinion 2/2019 and the 373 regulation with associated annexes.</p>
response	<p>Accepted</p>



comment	<p>1048 comment by: Assaeroporti - Associazione Italiana Gestori Aeroporti</p>
	<p>NPA Content:</p> <p>(a) The aerodrome operator shall assign a RWYCC based on the type and depth of the contaminant.</p> <p>(b) The aerodrome operator shall inspect the runway whenever the runway surface condition may have changed due to meteorological conditions, assess the runway surface condition and assign a RWYCC.</p> <p>(c) The aerodrome operator shall use pilot reports to trigger re-assessment of RWYCC.</p> <p>Comment:</p> <p>The "pilot report of braking action" should be made mandatory to produce the RCAM and establish the RWYCC. It is necessary to integrate the text by giving pilots the obligation to report to the ATS authority on the braking action whenever they land on airport runway. It is also important that the ATS authority transmits the braking action to the aerodrome operator in a short time.</p>
response	<p>Noted</p> <p>The requirements for the pilots are already included in CAT.OP.MPA.311 in Opinion No 02/2019.</p>
comment	<p>1059 comment by: ACI Europe</p> <p>Point (a) Can this be interpreted as an option to apply exceptions to RCAM on national level? Please clarify.</p> <p>COMMENT: In (c) use the term SPECIAL AIR-REPORT instead of 'pilot report' ?</p> <p>RATIONALE: The term pilot report is used in several places. The correct term used in AMC1 ADR.OPS.B.037 (c) seems to be Special Air-Report. Clarification on whether pilot report or Special Air-Report should be used and their consistent usage throughout the NPA is recommended unless each term has a distinct meaning. In the latter case a definitions of pilot report and special air-report should be added. The term Special Air-Report does not seem to aligned with SEARA that allow the term to be used only in cases of volcanic ash activity and wind shear, not RWY conditions (ref. Reg. (EU) No. 923/2012).</p> <p>Please see also our general comments (CMT 702) on this issue.</p>
response	<p>Noted</p> <p>The intention is to have a harmonised use of the RCAM.</p> <p>In regard to the use of the term 'SPECIAL AIR-REPORT', the comment is accepted.</p>
comment	<p>1410 comment by: Norwegian Air (Norwegian Air Norway, Norwegian Air International, Norwegian Air UK and Norwegian Air Shuttle)</p> <p>Supported.</p>
response	<p>Noted</p>

EASA would like to thank you for your support regarding the proposed changes.

comment 1429 comment by: CAA Finland

Should the possibility to use friction measurement devices for a possible upgrade or downgrade of the RWYCC be added to this segment.

response Noted

The assignment of a RWYCC is based on the type and depth of the contaminant and is linked with aeroplane performance data. Friction measurements cannot be correlated with certain RWYCCs and aeroplane performance data. Nevertheless, when upgrading and downgrading a RWYCC, all the available means could be used. This does not exclude the use of continuous friction measurement devices provided that measurements are used in a comparative way and not communicated to the flight crews.

comment 1519 comment by: Atle Vivas

ADR.OPS.B.037 Assessment of runway surface condition and assignment of runway condition code

COMMENT: In (c) use the term *SPECIAL AIR-REPORT* or *AIREP* instead of 'pilot report'

RATIONALE: See General comment (editorial). Ensure commonality within EASA documentation, for example Opinion 2/2019 and the 373 regulation with associated annexes.

response Accepted

comment 1750 comment by: UAF (Union des Aéroports Français)

UAF support ACI E comment#1059

response Noted

comment 1948 comment by: European Cockpit Association

ADR.OPS.B.037 Assessment of runway surface condition and assignment of runway condition code (RMT.0704)

(a) The aerodrome operator shall assign a RWYCC based on the type and depth of the contaminant.

ECA's comment: Should this paragraph include temperature?

Rationale: RCAM values for RWYCC are based on type and depth of the contaminant and temperature

response Accepted



ADR.OPS.B.080 Marking and lighting of vehicles and other mobile objects

p. 58-59

comment	226	comment by: <i>GdF</i>
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	We agree explicitly with these improvements.
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response	Noted
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	EASA would like to thank you for your support regarding the proposed changes.
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comment	255	comment by: <i>Gatwick Airport</i>
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	No comment
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response	Noted
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comment	517	comment by: <i>UK CAA</i>
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	Page No: 58/59
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	Paragraph No: ADR.OPS.B.080
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	Comment: We recommend sections (a) and (b) should be combined and their respective sub sections made into AMC
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	Justification: There has always been an overriding principle in the Aerodrome regulations that the IR would be a high level requirement and any specific detail would be AMC or GM.
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response	Noted
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	The proposed text has been reviewed and it is found that it is at the appropriate level for the transposition of the relevant SARPs and the development of a framework, which ensures the necessary clarity, the required legal certainty and enforceability, in line with all other aviation domains and the Chicago Convention.
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comment	618	comment by: <i>CAA Norway</i>
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	ADR.OPS.B.080 Marking and lighting of vehicles and other mobile objects
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	COMMENT: Supported
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response	Noted
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	EASA would like to thank you for your support regarding the proposed changes.
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comment	749	comment by: <i>SAS</i>
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	Supported
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response

Noted

EASA would like to thank you for your support regarding the proposed changes.

comment

901

comment by: Aleksandar Ilkovski

ADR.OPS.B.080(a):

Needs to be specified whether object such as: GPUs starters, mobile stairs also need to be lighted. Swedavia suggest that such objects not need to be lighted.

Should include requirement for reflex-marked equipment / vehicles parked on and in connection with ramps.

response

Noted

The relevant provision refers to vehicles and ‘other mobile objects’, while point (b) clarifies the issue.

The content of the proposal will be evaluated and if necessary’ taken into account for future rulemaking activities.

comment

973

comment by: PL CAA Aerodrome Department

In the draft amendment of **ADR.OPS.B.080 letter (a)(2)**, PL CAA proposes the following correction:

“ADR.OPS.B.080 Marking and lighting of vehicles and other mobile objects (RMT.0703)

(a) The aerodrome operator shall ensure that vehicles and other mobile objects, excluding aircraft, on the movement area of the aerodrome are:

[.....]

(2) [.....]

The colour of the lights to be displayed shall be as follows:

(i) flashing blue for vehicles associated with emergency or

security,

(ii) flashing yellow for other vehicles, including follow me vehicles; and

(iii) fixed-red for objects with limited mobility.”

Rationale:

According to national regulations, the reason of blue flashing light is to **provide priority when emergency occurs**. So during normal duty, all vehicles should be equipped in flashing yellow lights, **not to force priority** on manoeuvring area. During “emergency” means all kinds of emergency situations, connected also with security. Additionally there is no need to provide flashing blue lights on “security” vehicles as such (ex. internal aerodrome security) since they are often not directly involved in emergency action. If they take part in emergency, only then they should **use flashing blue**.

In the event that the above proposal is not accepted, PL CAA proposes to add another GM for ADR.OPS.B.080 in the following wording:



		<p>“GM2 ADR.OPS.B.080 Marking and lighting of vehicles and other mobile objects <u>Flashing blue lights should be used for vehicles directly involved in emergency, when such situation occurs. For normal operations flashing yellow light is sufficient.”</u></p>
response	Noted	<p>The proposed text is in line with the relevant provisions of Annex 14 and intends to regulate the specifications of the lights. The issue of priority is regulated under different provisions.</p>
comment	996	comment by: <i>Swedish Transport Agency</i>
	See	COMMENT: Supported, but need clarification of which objects is included in “other mobile objects”.
response	Accepted	<p>Additional guidance has been provided to clarify the meaning of ‘other mobile objects’.</p>
comment	1037	comment by: <i>Danish Transport, Construction and Housing Authority</i>
	Supported	
response	Noted	<p>EASA would like to thank you for your support regarding the proposed changes.</p>
comment	1060	comment by: <i>ACI Europe</i>
	Point (a) Needs to be specified whether object such as: GPUs starters, mobile stairs also need to be lighted. ACI EUROPE suggest that such objects not need to be lighted.	
	Point (b) (1) is a very important exemption – there would be many practical difficulties if this was removed, this point should be retained in full and read as follows:	
	(b) The aerodrome operator may exempt from (a): (1) Aircraft servicing equipment and vehicles used only on aprons <u>may be exempted</u> ; and	
response	Accepted	<p>The relevant provision refers to vehicles and ‘other mobile objects’, while point (b) clarifies the issue. Nevertheless, additional guidance has been provided to clarify the issue.</p>

The proposed amendment of point (b) does not affect the possibility to exempt an object from the relevant requirement.

comment 1520 comment by: *Atle Vivas*

Supported

response Noted

EASA would like to thank you for your support regarding the proposed changes.

ADR.OPS.C.005 General

p. 59-60

comment 256 comment by: *Gatwick Airport*

No comment

response Noted

comment 619 comment by: *CAA Norway*

ADR.OPS.C.005 General

COMMENT: Supported

response Noted

EASA would like to thank you for your support regarding the proposed changes.

comment 750 comment by: *SAS*

Supported

response Noted

EASA would like to thank you for your support regarding the proposed changes.

comment 998 comment by: *Swedish Transport Agency*

Supported.

response Noted

EASA would like to thank you for your support regarding the proposed changes.

comment 1013 comment by: *Flughafen Berlin Brandenburg GmbH*

Please clarify if “aerodrome facilities, systems and equipment necessary for the operation of the aerodrome” is identical in meaning and scope to the term “safety



response	<p>critical aerodrome equipment” used within the new basic regulation (EU) no 2018/1139.</p> <p>Noted</p> <p>The expression ‘aerodrome facilities, systems and equipment necessary for the operation of the aerodrome’ is not identical to the term ‘safety-critical aerodrome equipment’ as the former is general requirement of a wider applicability.</p>
comment	<p>1061 comment by: ACI Europe</p> <p>Design and implementation of a maintenance programme should not include Human Factor principles. It is not clear what HF are meant, please specify.</p> <p>Proposal to delete last sentence of point (a) of the IR, the reference in Annex 14 to which reference is made, is only a recommendation (see Annex 14 point 10.1.2) This IR should be GM.</p> <p>Also Point (a) Please clarify if “aerodrome facilities, systems and equipment necessary for the operation of the aerodrome” is identical in meaning and scope to the term “safety critical aerodrome equipment” used within the new basic regulation (EU) No 2018/1139.</p>
response	<p>Partially accepted</p> <p>The term ‘human factors’ is already included in the definitions. The inclusion of human factors principles in the design of the maintenance programme is essential for its effectiveness and for safety purposes.</p> <p>The expression ‘aerodrome facilities, systems and equipment necessary for the operation of the aerodrome’ is not identical to the term ‘safety-critical aerodrome equipment’ as the former is general requirement of a wider applicability.</p>
comment	<p>1385 comment by: UAF (Union des Aéroports Français)</p> <p>This IR is to not enough clear and gives to much references to other ICAO documents.</p> <p>UAF proposals : put in GM ICAO provision</p> <p>UAF fully support ACI E comment#1061</p>
response	<p>Noted</p> <p>The proposed regulation defines the objectives of the training programme while it does not refer to any ICAO document. Please refer to the reply to comment No 1061.</p>
comment	<p>1561 comment by: Atle Vivas</p> <p>Supported</p>



response Noted
EASA would like to thank you for your support regarding the proposed changes.

comment 1860 comment by: *Danish Transport, Construction and Housing Authority*
Supported

response Noted
EASA would like to thank you for your support regarding the proposed changes.

ADR.OPS.C.007 Maintenance of vehicles

p. 60-61

comment 32 comment by: *Aerodrome safety regulation departement*

Point (c) of the IR assigns the operator the responsibility for ensuring that organizations operating or providing services at the aerodrome maintain their vehicles in accordance with a maintenance programme. This provision is too demanding because it entrusts the operator with checks relating to technical specifications of vehicles in addition to checks regarding operating rules on the platform.

It would be more realistic to limit the operator's responsibilities to the impacts of vehicle maintenance on aerodrome operations and on compliance to R UE 139/2014. Moreover, isn't there a risk that the role given to the operator by this IR could conflict with the State supervision provided for in Article 62 of R UE 1139/2018 with regards to ground handling assistants ? How will it be articulated in the requirements currently in construction ?

response Noted

The proposed provisions require the aerodrome operator to authorise the use of vehicles operating at the aerodrome. A vehicle authorisation is subject to the vehicle being at a serviceable condition. Therefore, it follows that the aerodrome operator needs to ensure that authorised vehicles remain at a serviceable condition to avoid possible impact deriving from the use of non-maintained vehicles.

To discharge this responsibility, the proposed provision requires aerodrome operators to ensure that third-party vehicles are maintained in accordance with a maintenance programme. This provision does not waive the vehicle operator from its responsibility for the development and implementation of a maintenance programme under specific, present or future, requirements, nor impacts on the surveillance activities or responsibilities of the competent authority regarding certified/declared organisations.

Apart from reflecting a widespread practice, this approach is in line with the provisions of point 2.1. (f) of Annex VII to the Basic Regulation, which foresees that 'the aerodrome operator shall establish arrangements with other relevant



organisations to ensure continuing compliance with the essential requirements for aerodromes set out in this Annex. Those organisations include, but are not limited to, aircraft operators, ANS providers, groundhandling services providers, AMS providers and other organisations whose activities or products may have an effect on aircraft safety;’.

comment 257 comment by: *Gatwick Airport*

No comment

response Noted

comment 312 comment by: *European Powered Flying Union*

ADR.OPS.C.007
Maintenance of vehicles
p 60/207

The Agency's proposals go much too far. The allocation of responsibilities is not correct. We fully reject the contents of C.007, we ask for a better proposal which contains solutions as near to the ground ops reality as possible.

Rationale

By far not all vehicles are operated by the aerodrome operator. An aerodrome operator is not a competent authority for ground support equipment, special vehicles etc. The provisions proposed are not complete, and an aerodrome operator has no means to ensure what the Agency requests under (c).

response Noted

The proposed provisions require the aerodrome operator to authorise the use of vehicles operating at the aerodrome. A vehicle authorisation is subject to the vehicle being at a serviceable condition. Therefore, it follows that the aerodrome operator needs to ensure that authorised vehicles remain at a serviceable condition to avoid possible impact deriving from the use of non-maintained vehicles.

To discharge this responsibility, the proposed provision requires aerodrome operators to ensure that third-party vehicles are maintained in accordance with a maintenance programme. This provision does not waive the vehicle operator from its responsibility for the development and implementation of a maintenance programme under specific, present or future, requirements, nor impacts on the surveillance activities or responsibilities of the competent authority regarding certified/declared organisations.

Apart from reflecting a widespread practice, this approach is in line with the provisions of point 2.1. (f) of Annex VII to the Basic Regulation, which foresees that ‘the aerodrome operator shall establish arrangements with other relevant organisations to ensure continuing compliance with the essential requirements for



aerodromes set out in this Annex. Those organisations include, but are not limited to, aircraft operators, ANS providers, groundhandling services providers, AMS providers and other organisations whose activities or products may have an effect on aircraft safety;’.

comment

316

comment by: AEROPORTI DI ROMA

Referring to point (a)(2) *other vehicles operating on the movement area or other operational areas*.

A clarification is needed to point out that the statement “other vehicles” is referring to those vehicles under the Aerodrome Operator’s Responsibility.

response

Noted

Point (a)(1) refers to the RFFS vehicles, while point (a)(2) refers to other types of vehicles, both under the responsibility of the aerodrome operator (e.g. operations, maintenance, etc.). Point (c) covers the vehicles of other organisations. Point (a)(2) has been amended to further clarify the intent of the provision.

comment

403

comment by: Federal Ministry of Transport Germany, Aerodrome Department

Hinsichtlich des Verweises auf menschliche Faktoren (a) wäre es hilfreich, wenn z.B. durch Beispiele im GM erläutert werden würde, was damit gemeint ist.

Das Wartungsprogramm sollte auf die Fahrzeuge beschränkt sein, die im Rollfeld des Flugplatzes tätig sind. Zudem sollten nationale Prüfverfahren (z.B. TÜV) insbesondere für Fahrzeuge, die nicht dem Flugplatzbetreiber selbst gehören, anerkannt werden (siehe auch Kommentierung ADR.OPS.B.026). Allein die Fahrzeuge von Rettungs- und Brandbekämpfung sind unseres Erachtens so kritisch, dass diese einer spezifischen Wartung und Überwachung bedürfen.

Unklar ist, in wie fern die Notwendigkeit besteht, eine derartig detaillierte Regelung zu implementieren, insbesondere da in der Begründung darauf hingewiesen wird, dass keine Vorfälle bekannt sind.

Die Begründungen zu den entsprechenden AMC stammen aus dem ICAO Manual für Rettungs- und Feuerlöschdienste. Der Fokus liegt hier in der Einsatzbereitschaft der Fahrzeuge und nicht wie vom NPA kommuniziert in der Sicherheit der Fahrzeuge selbst. In Bezug auf die Feuerwehrfahrzeuge ist der erhöhte Fokus auf die Wartung auch sinnvoll, da es hier, anders als bei anderen Fahrzeugen, um die Einsatzfähigkeit im Einsatzfall und die Rettung von Menschenleben geht.

Die geplante Ergänzung ist unseres Erachtens nicht erforderlich, da hierdurch die Anforderung an die zuvor beschriebenen RFFS Fahrzeuge auf alle anderen



response

Fahrzeuge erweitert werden würde, deren Ausfall jedoch keine sicherheitsrelevanten Konsequenzen nach sich ziehen würden. Andere Erwägungsgünde wie beispielsweise die Arbeitssicherheit werden durch andere europäische und nationale Regeln behandelt. Die Vorgaben zur Wartung sollten sich daher auf RFFS Fahrzeuge beschränken.

Noted

The definition of human factors is already included in Regulation (EU) No 139/2014 and it also covers maintenance ('human factors principles' means principles which apply to aeronautical design, certification, training, operations and maintenance and which seek safe interface between the human and other system components by proper consideration to human performance). Moreover, the existing provisions of said Regulation already require the aerodrome manual to observe human factors principles, while 'soft law' material already refers to the ICAO Human Factors Training Manual (Doc 9683), which contains general principles that are applicable in the aerodrome area. EASA will however consider the need to develop specific material related to human factors with regard to aerodrome maintenance activities in the future.

The proposed provisions require the aerodrome operator to authorise the use of vehicles operating at the aerodrome. A vehicle authorisation is subject to the vehicle being at a serviceable condition. Therefore, it follows that the aerodrome operator needs to ensure that authorised vehicles remain at a serviceable condition to avoid possible impact deriving from the use of non-maintained vehicles. EASA has the view that apart from the RFFS vehicles, for which there are provisions in Annex 14, all other vehicles operating on the movement area (and other adjacent operational areas) need to be properly maintained, (just like all other vehicles not operating in an aerodrome environment). This is because they may, under various circumstances, such as a radio malfunction, a system malfunction on a refuelling vehicle, etc. have an impact on safety due to various technical reasons.

Therefore, the taking of a balanced proactive approach, such as the one proposed, is in line with the principles of safety management, but also with the content of paragraph 9.3.15 of ICAO State Letter 25/2018, as well the provisions of Annex VII to the Basic Regulation, while it reflects a widespread practice. Finally, please note that nothing in the proposed provision prevents the implementation of national maintenance procedures, where available.

comment

518

comment by: UK CAA

Page No: 60**Paragraph No:** ADR.OPS.C.007**Comment:** We recommend sections (a), (b) and (c) should be combined and their respective sub sections made into AMC

response	<p>Justification: There has always been an overriding principle in the Aerodrome regulations that the IR would be a high level requirement and any specific detail would be AMC or GM.</p> <p>Noted</p> <p>EASA has reviewed the proposed text and has the view that it is already at the appropriate level to ensure legal certainty without being prescriptive.</p>
comment	<p>586 comment by: <i>Belgian CAA</i></p> <p>Point (a) The aerodrome operator can not establish and implement a maintenance programme for all vehicles operating on the movement area of other operational areas. He can perform oversight to the maintenance programme of other parties operating vehicles on the aerodrome.</p> <p>This IR is in conflict with Belgian National legislation on ground handling and ground handling equipment, an could be in conflict with future European rulemaking on ground handling.</p>
response	<p>Noted</p> <p>The proposed provisions require the aerodrome operator to authorise the use of vehicles operating at the aerodrome. A vehicle authorisation is subject to the vehicle being at a serviceable condition. Therefore, it follows that the aerodrome operator needs to ensure that authorised vehicles remain at a serviceable condition to avoid possible impact deriving from the use of non-maintained vehicles.</p> <p>Point (a) (1) refers to the RFFS vehicles, while point (a)(2) (which has been amended to further clarify its intent) refers to other types of vehicles, both under the responsibility of the aerodrome operator (e.g. operations, maintenance, etc.). It is point (c) that addresses the vehicles of other organisations, and indeed, as commented, it only requires the aerodrome operator to ensure that ‘organisations operating or providing services at the aerodrome maintain their vehicles operating on the movement area or other operational areas, in accordance with an established maintenance programme’, in order to discharge its responsibility regarding such authorised vehicles. This provision does not waive the vehicle operator from its responsibility for the development and implementation of a maintenance programme under specific, present or future, requirements, nor impacts on the surveillance activities or responsibilities of the competent authority regarding certified/declared organisations.</p> <p>Apart from reflecting a widespread practice, this approach is in line with the provisions of point 2.1. (f) of Annex VII to the Basic Regulation, which foresees that ‘the aerodrome operator shall establish arrangements with other relevant organisations to ensure continuing compliance with the essential requirements for aerodromes set out in this Annex. Those organisations include, but are not limited to, aircraft operators, ANS providers, groundhandling services providers, AMS</p>



providers and other organisations whose activities or products may have an effect on aircraft safety;’.

comment 593 comment by: ADV - German Airports Association

(a) GM on human factors would be helpful to understand the safety objective.

response Noted

The definition of human factors is already included in Regulation (EU) No 139/2014. Moreover, the existing provisions of said Regulation already require the aerodrome manual to observe human factors principles, while ‘soft law’ material already refers to the ICAO Human Factors Training Manual (Doc 9683), which contains general principles that are applicable in the aerodrome area. EASA will however consider the need to develop specific material related to human factors with regard to aerodrome maintenance activities in the future.

comment 594 comment by: ADV - German Airports Association

It is inappropriate to extend the ICAO RFFS-scope onto other kinds of vehicles. There is no safety-case for that.

response Noted

EASA has the view that vehicles operating on movement area need to be maintained in order to ensure safety, just like vehicles operating outside an aerodrome.

comment 620 comment by: CAA Norway

ADR.OPS.C.007 Maintenance of vehicles

COMMENT: Add text in item c, to have it read:

*The aerodrome operator shall ensure that organisations operating or providing services at the aerodrome maintain their vehicles operating on the movement area or other operational areas, in accordance with an established maintenance programme, including preventive maintenance, **and that maintenance records are kept.***

RATIONALE: It is equally important that such organisations keep maintenance records for vehicles, one reason is that it is necessary in order to enable the operator to audit them properly.

response Accepted

The text has been amended in the suggested direction.

comment 751 comment by: SAS



response	<p>Supported</p> <hr/> <p>Noted</p> <p>EASA would like to thank you for your support regarding the proposed changes.</p>
comment	<p>809 comment by: <i>Assaeroporti - Associazione Italiana Gestori Aeroporti</i></p> <p>NPA Content: 2) other vehicles operating on the movement area or other operational areas.</p> <p>Comment: A clarification is needed to point out that the statement “other vehicles” is referring to those vehicles under the Aerodrome Operator’s Responsibility.</p>
response	<p>Noted</p> <p>Point (a) (1) refers to the RFFS vehicles, while point (a)(2) refers to other types of vehicles, both under the responsibility of the aerodrome operator (e.g. operations, maintenance, etc.). Point (c) covers the vehicles of other organisations. Point (a)(2) has been amended to further clarify the intent of the provision.</p>
comment	<p>902 comment by: <i>Aleksandar Ilkovski</i></p> <p>ADR.OPS.C.007 (b)(3): Does this mean for ALL vehicles or only for the aerodrome operators vehicle? Swedavia suggest that the aerodrome operator is not able to maintain/keep maintenance record under control for external companies’ vehicles.</p> <p>Rationale: ...other organisations at the aerodrome maintain their own system for record-keeping.</p>
response	<p>Accepted</p> <p>Point (b) is related to the implementation of point (a).</p> <p>Point (c) covers the vehicles of other organisations. Points (a)(2) and (c) have been amended to clarify the issue in question.</p>
comment	<p>999 comment by: <i>Swedish Transport Agency</i></p> <p>COMMENT: Add text in item c, to have it read: <i>The aerodrome operator shall ensure that organisations operating or providing services at the aerodrome maintain their vehicles operating on the movement area or other operational areas, in accordance with an established maintenance programme, including preventive maintenance, and that maintenance records are kept.</i></p>



response	<p>RATIONALE: It is equally important that such organisations keep maintenance records for vehicles, one reason is that it is necessary in order to enable the operator to audit them properly.</p> <p>Accepted</p> <p>The text has been amended in the suggested direction.</p>
comment	<p>1039 comment by: <i>Danish Transport, Construction and Housing Authority</i></p> <p>Support CAA Norway</p> <p>Comment: There should be a implementation period for 2-3 years, since the requirement is new - so it will take time for the aerodrome to implement an program like this.</p>
response	<p>Noted</p>
comment	<p>1062 comment by: <i>ACI Europe</i></p> <p>The requirement under point (a)(2) is far too excessive and should be deleted. All vehicles would include police, customs, various service providers circulate on the movment area. The administrative burden on the aerodrome operator would increase tremendously while the safety benefit is not obvious and would not be in proportion to the efforts it requires.</p> <p>Please clarify what is meant with ‘other operational areas’? Operational areas are (by definition) part of the movement area.</p> <p>The rule also does not clarify if a theoretical examination and/or computer based training/test would satisfy the requirement.</p> <p>The requirement under point (b)(3) is far too excessive. The administrative burden on the aerodrome operator will increase tremendously while the safety benefit is not proven and/or not in proportion to the efforts it requires.</p> <p>RATIONALE: ...other organisations at the aerodrome maintain their own system for record-keeping.</p> <p>Point (c) PROPOSED REVISION:</p> <p>(c) The aerodrome operator shall ensure that organisations operating or providing services at the aerodrome maintain their vehicles operating on the movement area or other operational areas, in accordance with an established maintenance programme, including preventive maintenance, <u>and that maintenance records are kept.</u></p> <p>RATIONALE: It is equally important that such organisations keep maintenance records for vehicles, one reason is that it is necessary to enable the operator to audit them properly.</p>



	<p>Point (d) The aerodrome operator can provide supervision, but cannot ensure that these are not used for operations. Propose to change IR accordingly and shift it to ACM/GM level.</p>
response	<p>Partially accepted</p> <p>Point (a) (1) refers to the RFFS vehicles, while point (a)(2) refers to other types of vehicles, both under the responsibility of the aerodrome operator (e.g. operations, maintenance, etc.). Point (b) is related to the implementation of point (a). Point (c) covers the vehicles of other organisations. Therefore, the aerodrome operator does not need to maintain maintenance records for vehicles of other organisations. To improve readability and clarify the intent of the provisions, point (c) has been amended as suggested.</p> <p>With regard to point (d), please note that it applies erga omnes, and that it is in line with the provisions of point 2.1. (f) of Annex VII to the Basic Regulation, which foresees that ‘the aerodrome operator shall establish arrangements with other relevant organisations to ensure continuing compliance with the essential requirements for aerodromes set out in this Annex. Those organisations include, but are not limited to, aircraft operators, ANS providers, groundhandling services providers, AMS providers and other organisations whose activities or products may have an effect on aircraft safety;’.</p> <p>Please also note that the serviceability of a vehicle is linked to the authorisation issued by the aerodrome operator.</p> <p>Moreover, the proposed provisions do not contain training requirements, while there may be operational areas, which are not part of the movement area (e.g. service roads between terminal building and aprons), as already defined in Annex VII to the Basic Regulation.</p>
comment	<p>1378 comment by: <i>Andreas Herndler, CAA Austria</i></p> <p>As a maintenance programme itself does not necessarily provide a better safety it is suggested to perform in a first step a daily check of the vehicles, etc.</p> <p>Therefore following adjustments are suggested:</p> <p>(a) (2) should read: other vehicles used for aerodrome operating purposes operating on the movement area ...</p> <p>(c) definition of "other operational areas" missing - See ADR.OPS.B.025</p> <p>(c) The aerodrome operator shall ensure that organisations operating or providing services at the aerodrome maintain their vehicles operating on the movement area or other operational areas, in accordance with an established maintenance programme, including preventive maintenance. The aerodrome operator shall ensure that organisations operating or providing services at the aerodrome shall check if the vehicles are safe when operating on the movement area or other operational areas.</p> <p>Check should be done according AMC1 ADR.OPS.C.007(a);(c) Items (a)(1) to (a)(8)</p>



response

Noted

Point (a) (1) refers to the RFFS vehicles, while point (a)(2) refers to other types of vehicles, both under the responsibility of the aerodrome operator (e.g. operations, maintenance, etc.). Point (b) is related to the implementation of point (a). Point (c) covers the vehicles of other organisations. To improve readability and clarify the intent of the provisions, points (a)(2) and (c) have been amended.

The proposal however may not be accepted, as a maintenance programme is more comprehensive than the preventive maintenance activities contained in the relevant AMC.

With regard to the definition of other operational areas, please note that there may be operational areas which are not part of the movement area (e.g. service roads between terminal building and aprons), as already defined in Annex VII to the Basic Regulation. Relevant guidance has been added.

comment

1396

comment by: *Graz Airport*

(a) (2) should read: other vehicles used for aerodrome operating purposes operating on the movement area ...

(c) definition of "other operational areas" missing - See ADR.OPS.B.025

~~(c) The aerodrome operator shall ensure that organisations operating or providing services at the aerodrome maintain their vehicles operating on the movement area or other operational areas, in accordance with an established maintenance programme, including preventive maintenance~~

(c) The aerodrome operator shall ensure that organisations operating or providing services at the aerodrome shall check if the vehicles are safe when operating on the movement area or other operational areas.
 Check should be done according AMC1 ADR.OPS.C.007(a);(c) Items (a)(1) to (a)(8)

response

Noted

Point (a) (1) refers to the RFFS vehicles, while point (a)(2) refers to other types of vehicles, both under the responsibility of the aerodrome operator (e.g. operations, maintenance, etc.). Point (b) is related to the implementation of point (a). Point (c) covers the vehicles of other organisations. To improve readability and clarify the intent of the provisions, points (a)(2) and (c) have been amended.

The proposal however may not be accepted, as a maintenance programme is more comprehensive than the preventive maintenance activities contained in the relevant AMC.



With regard to the definition of other operational areas, please note that there may be operational areas which are not part of the movement area (e.g. service roads between terminal building and aprons), as already defined in Annex VII to the Basic Regulation. To clarify the meaning of the term, relevant guidance has been added.

comment

1485

comment by: *Brussels Airport Company*

The requirement under point (a)(2) is far too excessive and should be deleted. All vehicles would include police, customs, various service providers circulate on the movement area. The administrative burden on the aerodrome operator will increase tremendously while the safety benefit is not proven and/or not in proportion to the efforts it requires. Please clarify what is meant with ‘other operational areas’? Operational areas are (by definition) part of the movement area.

Point (d) The aerodrome operator can provide supervision, but cannot ensure that these are not used for operations. Propose to change IR accordingly.

response

Partially accepted

Point (a) (1) refers to the RFFS vehicles, while point (a)(2) refers to other types of vehicles, both under the responsibility of the aerodrome operator (e.g. operations, maintenance, etc.). Point (b) is related to the implementation of point (a). Point (c) covers the vehicles of other organisations and has been amended to improve readability and clarify the intent of the provisions. To clarify the intent of the provisions, points (a)(2) and (c) have been amended.

With regard to point (d) please note that it applies erga omnes, and that it is in line with the provisions of point 2.1. (f) of Annex VII to the Basic Regulation, which foresees that ‘the aerodrome operator shall establish arrangements with other relevant organisations to ensure continuing compliance with the essential requirements for aerodromes set out in this Annex. Those organisations include, but are not limited to, aircraft operators, ANS providers, groundhandling services providers, AMS providers and other organisations whose activities or products may have an effect on aircraft safety;’.

Please also note that the serviceability of a vehicle is linked to the authorisation issued by the aerodrome operator. Moreover, there may be operational areas which are not part of the movement area (e.g. service roads between terminal building and aprons), as already defined in Annex VII to the Basic Regulation. To clarify the meaning of the term, relevant guidance has been added.

comment

1506

comment by: *Brussels Airport Company*



	Point (a): which human factors principles are meant and how do they relate to the maintenance programme?
response	<p>Noted</p> <p>The definition of human factors is already included in Regulation (EU) No 139/2014 and it also covers maintenance ('human factors principles' means principles which apply to aeronautical design, certification, training, operations and maintenance and which seek safe interface between the human and other system components by proper consideration to human performance).</p> <p>Moreover, the existing provisions of said Regulation already require the aerodrome manual to observe human factors principles, while 'soft law' material already refers to the ICAO Human Factors Training Manual (Doc 9683), which contains general principles that have applicability in the aerodrome area. EASA will however consider the need to develop specific material related to human factors with regard to aerodrome maintenance activities in the future.</p>
comment	<p>1564 comment by: <i>Atle Vivas</i></p> <p>ADR.OPS.C.007 Maintenance of vehicles COMMENT: Add text in item c, to have it read: <i>The aerodrome operator shall ensure that organisations operating or providing services at the aerodrome maintain their vehicles operating on the movement area or other operational areas, in accordance with an established maintenance programme, including preventive maintenance, and that maintenance records are kept.</i></p> <p>RATIONALE: It is equally important that such organisations keep maintenance records for vehicles, one reason is that it is necessary in order to enable the operator to audit them properly.</p>
response	<p>Accepted</p> <p>The text has been amended in the suggested direction.</p>
comment	<p>1648 comment by: <i>F. Ehmoser</i></p> <p>(a) (2) should read: other vehicles used for aerodrome operating purposes operating on the movement area ...</p>
response	<p>Partially accepted</p> <p>Point (a) (1) refers to the RFFS vehicles, while point (a)(2) refers to other types of vehicles, both under the responsibility of the aerodrome operator (e.g. operations, maintenance, etc.). Point (b) is related to the implementation of point (a). Point (c) covers the vehicles of other organisations while point (a)(2) has been amended to improve readability and clarify the intent of the provisions.</p>

comment	1652 (c) definition of "other operational areas" missing - See ADR.OPS.B.025	comment by: F. Ehmoser
response	Noted There may be operational areas which are not part of the movement area (e.g. service roads between terminal building and aprons), as already defined in Annex VII to the Basic Regulation. To clarify the meaning of the term, relevant guidance has been added.	
comment	1658 (c) The aerodrome operator shall ensure that organisations operating or providing services at the aerodrome maintain their vehicles operating on the movement area or other operational areas, in accordance with an established maintenance programme, including preventive maintenance (c) The aerodrome operator shall ensure that organisations operating or providing services at the aerodrome shall perform a daily check if the vehicles are safe when operating on the movement area or other operational areas. <i>Check should be done according AMC1 ADR.OPS.C.007(a);(c) Items (a)(1) to (a)(8)</i>	comment by: F. Ehmoser
response	Noted The proposal may not be accepted, as a maintenance programme is more comprehensive than the preventive maintenance activities contained in the relevant AMC.	
comment	1761 UAF support ACI E comment#1062	comment by: UAF (Union des Aéroports Français)
response	Noted Please refer to the reply to comment No 1062.	
comment	1826 In der aktuellen betrieblichen Praxis ist die Wartung der Fahrzeuge dezentral in der jeweiligen Abteilung gesteuert. Wir sehen die Gefahr der Überinterpretation dieser Regelung. Die dezentrale Steuerung der Fahrzeugwartung funktioniert sehr gut und wir sehen keine Veranlassung dies zu zentralisieren. Die Bündelung der Administration an einer Stelle erachten wir als ineffizienten Mehraufwand.	comment by: SinaJobstHAM
response	Noted The proposed provisions require the aerodrome operator to authorise the use of vehicles operating at the aerodrome. A vehicle authorisation is subject to the vehicle	

being at a serviceable condition. Therefore, it follows that the aerodrome operator needs to ensure that authorised vehicles remain at a serviceable condition to avoid possible impact deriving from the use of non-maintained vehicles.

To discharge this responsibility, the proposed provision requires aerodrome operators to ensure that third-party vehicles are maintained in accordance with a maintenance programme. This provision does not waive the vehicle operator from its responsibility for the development and implementation of a maintenance programme under specific, present or future, requirements, nor implies a transfer of responsibilities.

Apart from reflecting a widespread practice, this approach is in line with the provisions of point 2.1. (f) of Annex VII to the Basic Regulation, which foresees that ‘the aerodrome operator shall establish arrangements with other relevant organisations to ensure continuing compliance with the essential requirements for aerodromes set out in this Annex. Those organisations include, but are not limited to, aircraft operators, ANS providers, groundhandling services providers, AMS providers and other organisations whose activities or products may have an effect on aircraft safety;’.

comment

1832

comment by: *Groupe ADP*

OPS.B.025 : Authorisation of vehicle drivers, OPS.B.026: Authorisation of vehicles, B027 Operation of vehicles, OPS.C.007 Maintenance of vehicles

As far as Ground Handlers vehicles and GSE are concerned by these requirements, there is an inconsistency with 1139/2018 Annex VII Essential requirements for 4/ GROUNDHANDLING SERVICES. Indeed, § 4.1 d) e) and f) detail responsibilities of GH providers in matters of operations, training of drivers, qualification and maintenance program of GSE. GH provider will be submitted to declaration of compliance to these rules. How could it be compatible with an obligation of certification of the airport operator to implement and enforce equivalent rules regarding GH provider's vehicles and GSE ?

response

Noted

The proposed provisions require the aerodrome operator to authorise the use of vehicles operating at the aerodrome. A vehicle authorisation is subject to the vehicle being at a serviceable condition. Therefore, it follows that the aerodrome operator needs to ensure that authorised vehicles remain at a serviceable condition to avoid possible impact deriving from the use of non-maintained vehicles.

To discharge this responsibility, the proposed provision requires aerodrome operators to ensure that third-party vehicles (not just groundhandling services providers' vehicles) are maintained in accordance with a maintenance programme. This provision does not waive the vehicle operator from its responsibility for the development and implementation of a maintenance programme under specific, present or future, requirements, nor impacts on the surveillance activities or



responsibilities of the competent authority regarding certified/declared organisations.

Apart from reflecting a widespread practice, this approach is in line with the provisions of point 2.1. (f) of Annex VII to the Basic Regulation, which foresees that 'the aerodrome operator shall establish arrangements with other relevant organisations to ensure continuing compliance with the essential requirements for aerodromes set out in this Annex. Those organisations include, but are not limited to, aircraft operators, ANS providers, groundhandling services providers, AMS providers and other organisations whose activities or products may have an effect on aircraft safety;'

comment

1833

comment by: *Groupe ADP*

The requirement under point (c) concerning vehicles of other organisations operating or providing services at the aerodrome has nothing to do with SUBPART C — AERODROME MAINTENANCE has mentioned in ADR.OPS.C.005 General: "*The aerodrome operator shall establish and implement a maintenance programme, including preventive maintenance where appropriate, to maintain aerodrome facilities so that they comply with the essential requirements set in Annex Va to Regulation (EC) No 216/2008.*" This requirement (c) should be deleted.

response

Noted

Please refer to the reply to comment No 1832.

comment

1925

comment by: *Copenhagen Airports A/S*

Subject: (a)(2).

Proposal: Clarify the extent of 'other vehicles operating on the movement area or other operational areas.' It should be moved to GM.

Justification: If the proposal covers all vehicles and not only vehicles owned by the aerodrome operator, requires extensive procedures and resources.

response

Noted

Point (a) (1) refers to the RFFS vehicles, while point (a)(2) refers to other types of vehicles, both under the responsibility of the aerodrome operator (e.g. operations, maintenance, etc.). Point (b) is related to the implementation of point (a). Point (c) covers the vehicles of other organisations and point (a)(2) has been amended to improve readability and clarify the intent of the provisions.

ADR.OPS.C.010 Pavements, other ground surfaces and drainage

p. 61

comment

33

comment by: *Aerodrome safety regulation departement*

	<p>New point 3) and modified point 6) seem to be redundant and both reflect standard 10.2.5 of ICAO annex 14.</p> <p>Moreover, Point 5) has been upgraded from AMC to IR to transpose ICAO standard 10.3.1. Yet, this provision represents a means of compliance to point 3) and 6) of the IR.</p> <p>As a consequence, we would find it more appropriate to keep it at a AMC level and to link it with point 3) or 6) as an indicator for contaminant removal actions. The removal rubber or mud should be correlated to the coverage and to any necessary assessment of risk including friction measurements and cannot be required at an IR level without an appropriate frame of application.</p>
response	<p>Partially accepted</p> <p>Point (b)(3) transposes ICAO Annex 14, Standard 10.2.3 and point (b)(6) transposes Standard 10.2.7. EASA considers that (b)(3) is a general obligation of the aerodrome operator to maintain the runway surface conditions of the established standards and (b)(6) the obligation to take corrective maintenance actions.</p> <p>In regard to point (5), the comment is accepted and the text has been transferred to AMC1 ADR.OPS.C.010 point (a).</p>
comment	<p>228 comment by: <i>GdF</i></p> <p>While GdF is neither a CA nor an AO, we would like to state, that an AMC would be beneficial. It is important to ensure a harmonized or at least similar approach throughout the member states.</p>
response	<p>Noted</p>
comment	<p>258 comment by: <i>Gatwick Airport</i></p> <p>No comment</p>
response	<p>Noted</p>
comment	<p>391 comment by: <i>Federal Ministry of Transport Germany, Aerodrome Department</i></p> <p>Die Vorgabe nicht mehr benötigte Markierungen physisch zu entfernen und keinesfalls durch Übermalen zu beseitigen wird begrüßt.</p> <p>Es ist jedoch ausreichend, wenn die Anforderung an die physische Entfernung von Markierungen in einem AMC geregelt wird und nicht wortgleich in zwei AMC enthalten ist.</p> <p>Der in beiden oben genannten AMC verwendete Begriff „... is not needed any longer, ...“ sollte dringend spezifiziert</p>



	werden (z.B. über das GM4 ADR.OPS.C.010(b)(2)). Die Erfahrung zeigt, dass zwischen Flughafenbetreiber und Aufsichtsbehörde teilweise erhebliche Unterschiede über die Auslegung solcher Begriffe bestehen, z.B. wenn es sich nur um eine zeitweise – ggf. auch mehrere Monate dauernde - Sperrung einer Flugbetriebsfläche handelt.	
response	Noted	
comment	621	comment by: CAA Norway
	ADR.OPS.C.010 Pavements, other ground surfaces and drainage	
	COMMENT: In item 3 and 6, substitute «friction level» with «set standards». In item 4, substitute “measure” with “inspect” and substitute “measurements” with “inspections”.	
	RATIONALE: This will enable the use of other standards than friction level, for example texture depth or other to be determined. The option to use ‘minimum friction level’ as described in the existing AMC/GMs remains as long as it relates to the outcome of friction measuring devices only.	
response	Accepted	
comment	752	comment by: SAS
	Supported	
response	Noted	
	EASA would like to thank you for your support regarding the proposed changes.	
comment	957	comment by: PRG Airport
	<i>Question to stakeholders:</i> PRG Airport prefers this table to be at AMC level to ensure harmonized approach across the member states.	
response	Noted	
comment	1000	comment by: Swedish Transport Agency
	Supported.	
response	Noted	
	EASA would like to thank you for your support regarding the proposed changes.	
comment	1063	comment by: ACI Europe



	<p>COMMENT: In Points (3) and (6), substitute «minimum friction level» with «set standards».</p> <p>RATIONALE: This will enable the use of other standards than friction level, for example texture depth or other standards yet to be determined.</p> <p>Point (5) proposed new wording: (5) remove from the surface of runways in use as rapidly and completely as possible mud, dust, sand, oil, rubber deposits and other contaminants, to minimise accumulation; and</p> <p>Rationale: Rubber deposits are to be removed according to airport maintenance programme.</p>
response	<p>Partially accepted</p> <p>The comment in regard to points (3) and (6) is accepted.</p> <p>The comment in regard to point (5) is noted. The content of point (5) is transferred to AMC1 ADR.OPS.C.010 because it is considered as one means to comply with points (3) and (6).</p>

comment	<p>1569 comment by: <i>Atle Vivas</i></p> <p>ADR.OPS.C.010 Pavements, other ground surfaces and drainage</p> <p>COMMENT: In item 3 and 6, substitute «friction level» with «set standards». In item 4, substitute “measure” with “inspect” and substitute “measurements” with “inspections”.</p> <p>RATIONALE: This will enable the use of other standards than friction level, for example texture depth or other to be determined. The option to use ‘minimum friction level’ as described in the existing AMC/GMs remains as long as it relates to the outcome of friction measuring devices only.</p>
response	<p>Accepted</p>

comment	<p>1762 comment by: <i>UAF (Union des Aéroports Français)</i></p> <p>UAF support ACI E comment#1063</p>
response	<p>Partially accepted</p> <p>The comment in regard to points (3) and (6) is accepted.</p> <p>The comment in regard to point (5) is noted. The content of point (5) is transferred to AMC1 ADR.OPS.C.010 because it is considered as one means to comply with points (3) and (6).</p>



comment	<p>34 comment by: <i>Aerodrome safety regulation departement</i></p> <p>In (a) the terms “to <i>all necessary facilities</i> of the aerodrome” could be confusing because they could be interpreted as including also the commercial facilities where the CS ADR-DSN.S.875 is only related to the electrical power supply systems for air navigation facilities.</p> <p>Proposed new wording : “<i>for air navigation</i> facilities of the aerodrome”</p> <p>This would ensure consistency with the electrical systems considered in CS ADR-DSN.S.875 and following, and with provision 8.1.1 of Annex 14 volum I of ICAO.</p>
response	<p>Noted</p> <p>It is not the intent of this proposal to cover facilities which are not related to safety/regularity of air navigation, as this would obviously be outside of the scope of the Basic Regulation. This is also reflected in the wording of ADR.OPS.C.005 which already refers to ‘... aerodrome facilities, systems and equipment necessary for the operation of the aerodrome in a condition which does not impair the safety, regularity or efficiency of air navigation’. Please also note that the term ‘aerodrome facilities’ is used in Annex 14 as such, e.g. in paragraph 8.1.10 which defines which facilities need to be provided with a secondary power supply, and which is reflected in the content of CS ADR-DSN.S.880. To further clarify the intent of the provision, the term ‘operations’ is replaced by the term ‘air-navigation’ at the end of point (a).</p>
comment	<p>227 comment by: <i>GdF</i></p> <p>New LED lights do not generate enough heat to melt snow on top, which can result in the previously unknown situation that lights can be covered by light snowfall.</p> <p>EASA should monitor this and possibly provide GM.</p>
response	<p>Accepted</p> <p>GM2 ADR.OPS.C.015(b), contained in the NPA, already addresses this issue.</p>
comment	<p>259 comment by: <i>Gatwick Airport</i></p> <p>No comment</p>
response	<p>Noted</p>
comment	<p>519 comment by: <i>UK CAA</i></p> <p>Page No: 62/63</p> <p>Paragraph No: ADR.OPS.C.015</p> <p>Comment: We believe section (b), sub sections (1) to (7) should be made into AMC.</p>

response	<p>Justification: There has always been an overriding principle in the Aerodrome regulations that the IR would be a high level requirement and any specific detail would be AMC or GM.</p> <p>Noted</p> <p>The text has been reviewed and found to be at the appropriate level, considering that it reproduces the text of existing certification specifications which had transposed the relevant, universally agreed, Annex 14 provisions, which set only the objectives that a relevant maintenance programme needs to achieve, therefore meeting the criteria of an objective-based approach. Moreover, given their character and purpose, these objectives may not be subject to an alternative approach.</p>
comment	<p>622 comment by: CAA Norway</p> <p>ADR.OPS.C.015 Visual aids and electrical systems</p> <p>COMMENT: The proposal to transfer operational matters from CS-ADR-DSN to ADR.OPS.C is supported.</p> <p>COMMENT: Must be coordinated with the outcome of NPA 2018-6 (D).</p> <p>RATIONALE: NPA 2018-6 (D) introduces changes to this paragraph as well.</p>
response	<p>Noted</p> <p>The final text is coordinated with the text of NPA 2008-06 (AWO); however, for this NPA, the existing text of Regulation (EU) No 139/2014 was taken as reference.</p>
comment	<p>645 comment by: CAA-NL</p> <p>ADR.OPS.C.015 – Visual aids and electrical systems</p> <p>CAA Netherlands acknowledges the need for some additions to improve safety of visual aids and electrical systems in the framework of EU regulation. The level of detail in the proposed implementing rules is however not consistent with the hierarchy used until now. CAA Netherlands suggests to transform the implementing rule to an objective based high level rule and shift the details to the level of AMC/CS by placing a full stop after (b) control of aircraft and vehicles.</p>
response	<p>Noted</p> <p>The text has been reviewed and found to be at the appropriate level, considering that it reproduces the text of existing certification specifications which had transposed the relevant, universally agreed, Annex 14 provisions, which set only the objectives that a relevant maintenance programme needs to achieve, therefore meeting the criteria of an objective-based approach. Moreover, given their character and purpose, these objectives may not be subject to an alternative approach.</p>

comment	753 Supported	comment by: SAS
response	Noted EASA would like to thank you for your support regarding the proposed changes.	
comment	827	comment by: Aena Aeropuertos, S.A.
	<p>* (b)(7) In the case of PAPI, other circumstances must be taken into account: there are PAPI units whose have two lamps and which are certified to meet the photometric requirements only with one of them. It is proposed an alternative text:</p> <p>(a) (7) Unless PAPI is certified to meet the photometric requirements in another way, a PAPI unit is out of service when:</p> <ul style="list-style-type: none"> · PAPI with 3 or more lights and the same number of exterior lenses: More than 1 light U / S. · Unit with 3 or more lights and a single external lens: More than 1 light U / S. · Unit with less than 3 lights and an equal number of exterior lenses: 1 U / S light. <p>Whenever a red filter is unusable, missing or damaged, all the lights of that unit will be out of service and must be disconnected until it has been repaired.</p> <p>* AMC1 ADR.OPS.C.015 (d) and GM1 ADR.OPS.C.015 (d) reproduce completely the text AMC2 ADR.OPS.C.010 and the GM4 ADR.OPS.C.010 REMOVAL OF MARKS. We consider that in AMC1 ADR.OPS.C.015 and GM1 ADR.OPS.C .015 (d) it should only refer to points AMC1 ADR.OPS.C.015 (d) and GM1 ADR.OPS.C.015 (d) instead of developing the explanation again.</p>	
response	Partially accepted The text or the proposed requirement has been amended to accommodate more cases. The accidentally duplicated AMC/GM have been removed.	
comment	903	comment by: Aleksandar Ilkovski
	ADR.OPS.C.015: Special approval CAT 1 is not included in this list, should be consistent with 2018-06 (D) – All weather operations.	
response	Accepted The final text is coordinated with the text of NPA 2008-06 (AWO); however, for this NPA, the existing text of Regulation (EU) No 139/2014 was taken as reference.	
comment	921	comment by: ADV - German Airports Association
	Revise text: (c) (1)	

the main beam average intensity is less than 50% of the value specified in the certification specifications issued by the Agency. ~~For light units where the designed main beam average intensity is above the value specified in the certification specifications issued by the Agency, the 50% value shall be related to that design value; and~~

Rationale [German only]:

Bei Feuern, deren Lichtintensität gem. Hersteller über den von der EASA vorgegebenen Mindestwerten liegt, ist dieser – höhere – Wert für die Bestimmung der 50%-Schwelle (Kriterium für Betriebsbereitschaft eines Feuerers) maßgeblich. Allerdings ist dringend zu berücksichtigen, dass niemals nur Feuer eines Herstellers oder gar einer Charge für die Infrastrukturelemente eines Flugplatzes zum Einsatz kommen. Stattdessen kommen Feuer einer Vielzahl von Herstellern, Baujahren und Chargen zum Einsatz. Damit weichen die unterschiedlichen Design-Lichtintensitäten zwischen einzelnen Feuerern teils erheblich voneinander ab – eine individuelle Feststellung der Betriebsbereitschaft anhand der 50%-Schwelle ist somit nicht praktikabel. Einzig zulässiges Kriterium für die Bestimmung der 50%-Schwelle kann also nur der Design-Wert gem. CS-ADR-CSN sein.

response

Noted

The proposed text reproduces the relevant text of existing certification specifications which had transposed the relevant Annex 14 provision.

comment

1001

comment by: *Swedish Transport Agency*

COMMENT: The proposal to transfer operational matters from CS-ADR-DSN to ADR.OPS.C is supported.

COMMENT: Must be coordinated with the outcome of NPA 2018-6 (D).

RATIONALE: NPA 2018-6 (D) introduces changes to this paragraph as well.

response

Accepted

The final text is coordinated with the text of NPA 2008-06 (AWO); however, for this NPA, the existing text of Regulation (EU) No 139/2014 was taken as reference.

comment

1042

comment by: *Danish Transport, Construction and Housing Authority*

Supported.

Comment: It is important that there is a implementation period for a couple of years, since several aerodromes do not meet the requirements to day - so it will take time for the aerodromes to implement an program like this.

Otherwise we Support CAA Norway

response

Noted



comment	<p>1054</p> <p style="text-align: right;">comment by: <i>Fraport AG</i></p> <p>All specifications given in this IR are shifted, thus uprated from CS level to hard law. The idea might be to bring maintenance issues to the OPS part of the regulation. With shifting all issues to the IR level the regulatory framework will not allow using advantages of the technical development of different electrical parts. Especially the defined "design" specifics of aerodrome lights occurs to problems when they will be mixed up with elements of an existing infrastructure (e.g. dazzlement of pilots). The interpretation of authorities might be different on the design levels given by the manufactures. It would be helpful if the relevant maintenance level is linked to the minimum levels given in CS and not to the design levels of manufacture.</p> <p>Justification:</p> <p>New lights have intensities which are much higher than the given numbers in CS. Therefore they have a much higher intensity than lights have which are in operation since years. This will lead into an uneven lighting picture or in worst case into a dazzlement for the pilots. If lights will be downgraded to an even level of illumination with the existing infrastructure the live time will significantly exceed. With this thinking and the actual hard law regulation lights have to be exchanged because of the given design criteria of the manufacture (who calculates on a use of a maximum power level) significantly before the real live time is exceeded. Following this company founds would exterminated what is not acceptable.</p> <p>Fraport would be highly interested in explaining in detail what is meant detail and work on a definition together with EASA which might connect regulatory with economical needs.</p>
response	<p>Noted</p> <p>The proposed text reproduced the relevant text of existing certification specifications which had transposed the relevant Annex 14 provision.</p>

comment	<p>1064</p> <p style="text-align: right;">comment by: <i>ACI Europe</i></p> <p>General Comment: IR should be moved to GM</p> <table border="0"> <tr> <td style="vertical-align: top;">Point</td> <td style="vertical-align: top;">(b)</td> <td style="vertical-align: top;">PROPOSED</td> <td style="vertical-align: top;">REVISION:</td> </tr> <tr> <td colspan="4">The aerodrome operator shall establish and implement a preventive and corrective maintenance programme to ensure the serviceability of for the individual lights and the reliability of the lighting systems of the aerodrome, in a manner that to ensures continuity of guidance to, and control of aircraft and vehicles,</td> </tr> </table> <p>RATIONALE: The adjectives "serviceability" and "reliability" are difficult to define properly and does not add value to the functional objective of this requirement which is to maintain the lights so that they function properly.</p> <p>Point (e) ICAO Recommendation becomes IR material - this is not in line with the idea of a recommendation.</p> <p>Relocation from CS ADR-DSN.S.895 is supported.</p>	Point	(b)	PROPOSED	REVISION:	The aerodrome operator shall establish and implement a preventive and corrective maintenance programme to ensure the serviceability of for the individual lights and the reliability of the lighting systems of the aerodrome, in a manner that to ensures continuity of guidance to, and control of aircraft and vehicles,			
Point	(b)	PROPOSED	REVISION:						
The aerodrome operator shall establish and implement a preventive and corrective maintenance programme to ensure the serviceability of for the individual lights and the reliability of the lighting systems of the aerodrome, in a manner that to ensures continuity of guidance to, and control of aircraft and vehicles,									
response	<p>Not accepted</p>								

The proposed text transposes universally agreed provisions with the intent to regulate the maintenance of visual aids at an aerodrome, and therefore have to be transposed at an appropriate level. The terms 'serviceability' and 'reliability' are both defined, while the proposal would affect the remaining text where these terms are already used. Please note that the intent of point (e) is, amongst others, to avoid accidental damage to facilities that would lead to the interruption of the necessary visual guidance to aircraft, and therefore it is considered essential.

comment 1379 comment by: *Andreas Herndler, CAA Austria*

The main beam average intensity specified by the designed value will lead to a mixed visual appearance and only contains a financial disadvantage while the mean beam still would meet the value specified in the certification specification issued by the Agency.

Therefore following adjustments are suggested:

(c) (1) 2. sentence should be deleted

response Not accepted
The proposed already exists in CS ADR-DSN.S.895 which had transposed the relevant Annex 14 provision.

comment 1570 comment by: *Graz Airport*

the main beam average intensity is less than 50% of the value specified in the certification specification issued by the Agency.

concerns: A main beam average intensity specified by the designed value will lead to a mixed visual appearance and only contains a financial disadvantage while the mean beam still would meet the value specified in the certification specification issued by the Agency.

response Not accepted
The proposed already exists in CS ADR-DSN.S.895, which had transposed the relevant Annex 14 provision.

comment 1571 comment by: *Atle Vivas*

ADR.OPS.C.015 Visual aids and electrical systems

COMMENT: The proposal to transfer operational matters from CS-ADR-DSN to ADR.OPS.C is supported.

COMMENT: Must be coordinated with the outcome of NPA 2018-6 (D).



	RATIONALE: NPA 2018-6 (D) introduces changes to this paragraph as well.
response	Accepted The final text is coordinated with the text of NPA 2008-06 (AWO); however, for this NPA, the existing text of Regulation (EU) No 139/2014 was taken as reference.
comment	1675 comment by: F. Ehmoser (1) the main beam average intensity is less than 50 % of the value specified in the certification specifications issued by the Agency. For light units where the designed main beam average intensity is above the value specified in the certification specifications issued by the Agency, the 50 % value shall be related to that design value; and <i>A main beam average intensity specified by the designed value will lead to a mixed visual appearance and only contains a financial disadvantage while the mean beam still would meet the value specified in the certification specification issued by the Agency.</i>
response	Not accepted The proposed already exists in CS ADR-DSN.S.895 which had transposed the relevant Annex 14 provision.
comment	1763 comment by: UAF (Union des Aéroports Français) UAF support ACI E comment#1064
response	Noted Please refer to the reply to comment No 1064.

3.2. Draft certification specifications (Draft EASA decision)

p. 65

comment	260 comment by: Gatwick Airport No comment
response	Noted
comment	754 comment by: SAS Supported
response	Noted EASA would like to thank you for your support regarding the proposed changes.



CS ADR-DSN.A.002 Definitions

p. 65-66

comment	261	comment by: Gatwick Airport
	Agree	
response	Noted	
	EASA would like to thank you for your support regarding the proposed changes.	

comment	755	comment by: SAS
	Supported	
response	Noted	
	EASA would like to thank you for your support regarding the proposed changes.	

comment	1049	comment by: Assaeroporti - Associazione Italiana Gestori Aeroporti
	<p>NPA Content:</p> <p>Frost' means ice crystals formed from airborne moisture on a surface whose temperature is below freezing; frost differs from ice in that the frost crystals grow independently and therefore have a more granular texture.</p> <p>Note 1: 'below freezing' refers to air temperature equal or less than the freezing point of water (0 degree Celsius).</p> <p>Note 2: under certain conditions, frost can cause the surface to become very slippery and it is then reported appropriately as reduced 'braking action'.</p> <p>Comment:</p> <p>It is important to clarify who have to report if there is "frost" on runway that have to be reported as "reduced braking action". It should be the flight commander's responsibility.</p>	
response	Noted	
	This provides factual information.	

comment	1412	comment by: Norwegian Air (Norwegian Air Norway, Norwegian Air International, Norwegian Air UK and Norwegian Air Shuttle)
	Supported.	
response	Noted	
	EASA would like to thank you for your support regarding the proposed changes.	

CS ADR-DSN.B.165 Objects on runway strips

p. 66



comment	262	comment by: <i>Gatwick Airport</i>
	No Comment	
response	Noted	

comment	623	comment by: <i>CAA Norway</i>
	CS ADR-DSN.B.165 Objects on runway strips COMMENT: Supported	
response	Noted EASA would like to thank you for your support regarding the proposed changes.	

comment	756	comment by: <i>SAS</i>
	Supported	
response	Noted EASA would like to thank you for your support regarding the proposed changes.	

comment	826	comment by: <i>Aena Aeropuertos, S.A.</i>
	* Errata. In Rationale, the section of the ADR.OPS.B.027 to which it refers should be specified. It is the (e). * Errata. Point AMC1 ADR.OPS.B.027 (b) (8) is not found in the document.	
response	Accepted It is point (e)(1) that the NPA text referred to.	

comment	1002	comment by: <i>Swedish Transport Agency</i>
	Supported.	
	Table S1 COMMENT: Must be coordinated with the outcome of NPA 2018-6 (D). RATIONALE: NPA 2018-6 (D) introduces changes to this paragraph as well.	
response	Accepted The final text is coordinated with the text of NPA 2008-06 (AWO); however, for this NPA, the existing text of Regulation (EU) No 139/2014 was taken as reference.	

comment	1007	comment by: <i>Flughafen Berlin Brandenburg GmbH</i>
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	<p>Vehicle traffic itself is not a matter of aerodrome design, nevertheless the sentence should remain. Airside and service roads, which imply the possible presence of mobile obstacles, are a matter of aerodrome design. Roads should, whenever practicable, not be situated within the runway strips (with the exception of those needed for access to certain facilities on the strip). Within ICAO State Letter AN 4/1.1.59-18/103 the requirements for objects on runway strips are addressed and will very likely be amended. Hence, it is proposed to modify CS ADR-DSN.B.165 to the wording proposed by ICAO. Generally, the reference to mobile objects does make sense here to clarify the origin and safety purpose of the underlying ICAO Standard, which is the obstacle free zone (OFZ).</p>
response	<p>Partially accepted</p> <p>The presence of a vehicle or an other mobile object on a strip does not necessarily imply the existence of a service road, as a vehicle may be operating on a strip for various reasons (e.g. cutting of grass, wildlife management purposes, etc.). The current text of Annex 14, and the relevant CS, do not address the issue of the location of service roads, but rather set a prohibition about the operation of such objects which is also related to landing/take off operations (No mobile object should be permitted on this part of the runway strip during the use of the runway for landing or take-off).</p> <p>EASA has therefore the view that the proposal, being specific to the design (location) of service roads, should be addressed in the CS dealing with service roads (CS ADR-DSN.T.900), to ensure a consistent and all-inclusive approach to the aerodrome design. EASA will examine this issue as well as the final provisions stemming from the consultation of ICAO State letter 103/2018 in the future.</p>
comment	<p>1043 comment by: <i>Danish Transport, Construction and Housing Authority</i></p> <p>Support CAA Norway</p>
response	<p>Noted</p> <p>EASA would like to thank you for your support regarding the proposed changes.</p>
comment	<p>1575 comment by: <i>Atle Vivas</i></p> <p>CS ADR-DSN.B.165 Objects on runway strips COMMENT: Supported Table S1 COMMENT: Must be coordinated with the outcome of NPA 2018-6 (D). RATIONALE: NPA 2018-6 (D) introduces changes to this paragraph as well.</p>
response	<p>Accepted</p> <p>The final text is coordinated with the text of NPA 2008-06 (AWO); however, for this NPA, the existing text of Regulation (EU) No 139/2014 was taken as reference.</p>

comment	1841	comment by: <i>Copenhagen Airports A/S</i>
	<p>Subject: Service roads.</p> <p>Proposal: Keep the sentence in B.165. Alternatively, set up a rule for location of service roads.</p> <p>Justification: Service roads for vehicles in the vicinity of a runway is certainly aerodrome design. Furthermore, the distance is extended from 60 meter for Code 4 RWY to 90 meter. 60 meter is in line with the location of a holding position on a TWY, since the point is to keep a vehicle or an aircraft free of the OFZ. You could suggest, that the distance of 60 meter should be replaced by 71.5 meter, keeping a vehicle with a height of 3.8 m clear of the OFZ.</p>	
response	<p>Partially accepted</p> <p>The presence of a vehicle or an other mobile object on a strip does not necessarily imply the existence of a service road, as a vehicle may be operating on a strip for various reasons (e.g. cutting of grass, wildlife management purposes, etc.). The current text of Annex 14, and the relevant CS, do not address the issue of the location of service roads, but rather set a prohibition about the operation of such objects which is also related to landing/take off operations (No mobile object should be permitted on this part of the runway strip during the use of the runway for landing or take-off).</p> <p>EASA has therefore the view that the proposal, being specific to the design (location) of service roads, should be addressed in the CS dealing with service roads (CS ADR-DSN.T.900), to ensure a consistent and all-inclusive approach to the aerodrome design. EASA will examine this issue as well as the final provisions stemming from the consultation of ICAO State letter 103/2018 in the future.</p>	

CS ADR-DSN.M.630 Precision approach Category I lighting system	p. 67
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comment	263	comment by: <i>Gatwick Airport</i>
	No comment	
response	Noted	
comment	757	comment by: <i>SAS</i>
	Supported	
response	<p>Noted</p> <p>EASA would like to thank you for your support regarding the proposed changes.</p>	

CS ADR-DSN.M.635 Precision approach Category II and III lighting system	p. 67-68
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comment	264	comment by: <i>Gatwick Airport</i>
	No comment	
response	Noted	
comment	758	comment by: <i>SAS</i>
	Supported	
response	Noted EASA would like to thank you for your support regarding the proposed changes.	

CS ADR-DSN.M.690 Runway centre line lights p. 69

comment	265	comment by: <i>Gatwick Airport</i>
	No comment	
response	Noted	
comment	759	comment by: <i>SAS</i>
	Supported	
response	Noted EASA would like to thank you for your support regarding the proposed changes.	

CS ADR-DSN.M.705 Stopway lights p. 69-71

comment	266	comment by: <i>Gatwick Airport</i>
	No comment	
response	Noted	
comment	465	comment by: <i>European Powered Flying Union</i>
	CS-ADR-DSN.M.705 Stopway lights overview p 70/207	
	As regards non-instrument runways we propose to delete the stopway end and stopway edge lights requirements.	
	Rationale	



response	<p>Considering the operations taking place to/on/from non-instrument runways and the minima applied we think any such requirement only puts an additional burden on the affected aerodromes without any safety benefit.</p> <p>Noted</p> <p>Please refer to the rationale of the proposal.</p>
comment	<p>624 comment by: CAA Norway</p> <p>Table S1 COMMENT: Must be coordinated with the outcome of NPA 2018-6 (D). RATIONALE: NPA 2018-6 (D) introduces changes to this paragraph as well.</p>
response	<p>Accepted</p> <p>The final text is coordinated with the text of NPA 2008-06 (AWO); however, for this NPA, the existing text of Regulation (EU) No 139/2014 was taken as reference.</p>
comment	<p>760 comment by: SAS</p> <p>Supported</p>
response	<p>Noted</p> <p>EASA would like to thank you for your support regarding the proposed changes.</p>
comment	<p>1065 comment by: ACI Europe</p> <p>Please elaborate: What is the underlying rationale to introduce 800m as a threshold and no other value?</p>
response	<p>Noted</p> <p>The reason for this is to address the inconsistency that currently exists between the different RVR values, taking into account the relationship of the stopway lights and the other lighting systems (please refer to the relevant rationale).</p>
comment	<p>1066 comment by: ACI Europe</p> <p>Table S-1: Secondary power supply requirements:</p> <p>‘Precision approach runway, Category I’ is defined as an instrument runway served by non-visual aids and visual aids, intended for operations with a decision height (DH) not lower than 60 m (200 ft) and either a visibility not less than 800 m or a runway visual range (RVR) not less than 550 m. In the whole NPA the term RVR less than 550 m is often used, but on page 70 is mentioned RVR less than 800 m. Please clarify the discrepancy.</p>



response	Noted The definition of precision approach runway Category I is not relevant to this proposal. Please refer to the relationship between the stopway lights and the other lighting systems, as explained in the relevant rationale, as well as paragraph (a) of CS ADR-DSN.M.675, and the content of Table S-1, which have already transposed the relevant Annex 14 SARPs.
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comment	1764 UAF support ACI E comment#1066	comment by: UAF (Union des Aéroports Français)
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response	Noted Please refer to the reply to comment No 1066.
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CS ADR-DSN.Q.850 Lighting of other objects	p. 71
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comment	267 No comment	comment by: Gatwick Airport
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response	Noted
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comment	761 Supported	comment by: SAS
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response	Noted EASA would like to thank you for your support regarding the proposed changes.
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CS ADR-DSN.Q.850	p. 72
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comment	268 No comment	comment by: Gatwick Airport
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response	Noted
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comment	762 Supported	comment by: SAS
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response	Noted EASA would like to thank you for your support regarding the proposed changes.
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comment	1067	comment by: <i>ACI Europe</i>
	Point (d) The requirement for markings is already in AMC2 ADR.OPS.C.010. It should not be duplicated in CS.	
response	Noted	
	CS ADR-DSN.Q.850 is proposed to be deleted, as the content is transferred to a new AMC to the proposed ADR.OPS.B.080.	

GM1 CS ADR-DSN.Q.850 Lighting of other objects

p. 72

comment	269	comment by: <i>Gatwick Airport</i>
	No comment	
response	Noted	
comment	763	comment by: <i>SAS</i>
	Supported	
response	Noted	
	EASA would like to thank you for your support regarding the proposed changes.	

GM1 ADR-DSN.R.855 Closed runway and taxiways, or parts thereof

p. 72

comment	220	comment by: <i>GdF</i>
	Markings of closed runways and taxiways are safety relevant and should be covered by IR not AMC.	
	A closed marking shall be displayed on a runway, or taxiway, or portion thereof which is permanently closed to the use of all aircraft.	
	(b) Location of closed markings: On a runway, a closed marking shall be placed at each end of the runway, or portion thereof, declared closed, and additional markings should be so placed that the maximum interval between markings does not exceed 300 m. On a taxiway a closed marking should be placed at least at each end of the taxiway or portion thereof closed.	
	(c) Characteristics of closed markings: The closed marking should be of the form and proportions as detailed in Figure R-1, Illustration (a), when displayed on a runway, and should be of the form and proportions as detailed in Figure R-1,	



Illustration (b), when displayed on a taxiway. The marking shall be white when displayed on a runway and shall be yellow when displayed on a taxiway.

“physical removal” would rule out e.g. chemical removal, which might be even more effective.

(d) When a runway, or taxiway, or portion thereof is permanently closed, all normal runway and taxiway markings should be erased.

Information regarding the erasure of runway and taxiway markings is contained in AMC2 ADR.OPS.C.010 and GM4 ADR.OPS.C.010(b)(2).

response

Not accepted

We understand that this comment relates to the content of CS ADR-DSN.R.855, which however is not an AMC but an aerodrome design certification specification. In case of applicability, due to permanent closures of parts of an aerodrome, the certification specification becomes part of the certification basis of the aerodrome with which compliance is required according to the provisions of Regulation (EU) No 139/2014.

The way that a marking is to be physically removed is not defined (see AMC2 ADR.OPS.C.010); however, GM4 ADR.OPS.C.010(b)(2) contains example methods that may be used, and this includes also chemical means.

comment

270 comment by: Gatwick Airport

No comment

response

Noted

comment

764 comment by: SAS

Supported

response

Noted

EASA would like to thank you for your support regarding the proposed changes.

comment

802 comment by: ENAIRE

- **GM1 ADR-DSN.R.855** Provisions on the management of RWYs not in use for arrivals/departures, but not closed, are required. These RWYs, or parts of



	them, can be crossed by TWYs or can eventually be used for taxiing. Guidance on this topic is required.
response	Noted EASA understands that the comment is not related to aerodrome design specifications, but rather to the operational treatment of such cases. The comment will be further evaluated and, if necessary, addressed in a future rulemaking task.

CS ADR-DSN.S.890 Monitoring

p. 73

comment	271 No comment	comment by: <i>Gatwick Airport</i>
response	Noted	
comment	765 Supported	comment by: <i>SAS</i>
response	Noted EASA would like to thank you for your support regarding the proposed changes.	
comment	828 * The requirement of automatic monitoring to maintenance services of the levels' non-compliance specified in ADR.OPS.C.015 (b) (1) to (b) (5) is inconsistent if the out-of-service requirement is linked to 50 % of luminous intensity, as required in ADR-OPS-C-015 (c).	comment by: <i>Aena Aeropuertos, S.A.</i>
response	Noted The proposed change does not affect the content of the certification specification. The value of 50 % exists already in CS ADR-DSN.S.895 which transposed the relevant Annex 14 provision. EASA follows the relevant discussions at ICAO level.	

CS ADR-DSN.S.895 Serviceability levels

p. 73-75

comment	272 No comment	comment by: <i>Gatwick Airport</i>
response	Noted	



comment	766	comment by: SAS
	Supported	
response	Noted	
	EASA would like to thank you for your support regarding the proposed changes.	

CS ADR-DSN.S.895 p. 75

comment	273	comment by: Gatwick Airport
	No comment	
response	Noted	

comment	767	comment by: SAS
	Supported	
response	Noted	
	EASA would like to thank you for your support regarding the proposed changes.	

3.3. Draft acceptable means of compliance and guidance material (Draft EASA decision) p. 76

comment	274	comment by: Gatwick Airport
	No Comment	
response	Noted	

comment	768	comment by: SAS
	Supported	
response	Noted	
	EASA would like to thank you for your support regarding the proposed changes.	

comment	963	comment by: Airside safety
	Section 5 of the RWYCC is not defined enough for aerodrome operators, in that it gives the same score (5) to Frost Wet Slush Dry Snow and Wet Snow when the braking characteristics of an aircraft can vary in each condition.	
response	Noted	



These types of contaminants have similar effects on aircraft performance; therefore, they have the same RWYCC.

GM to Annex I (Definitions) to Regulation (EU) No 139/2014

p. 76-77

comment 50 comment by: *Aerodrome safety regulation departement*

GM1 and 2 to definition 41a slippery wet runway should be transferred into the definition of slippery wet runway because those elements are essential to a full and correct understanding of the definition.

response Not accepted

Notes in ICAO Annexes are not part of the standard and they provide clarification or factual information. For this reason, the Notes have been transposed as GM

comment 275 comment by: *Gatwick Airport*

No Comment

response Noted

comment 357 comment by: *Zurich Airport*

GM1 38f (f)

It could be confusing if there is no difference between running and standing water. If there is a operational difference between the two, we recommend to consider it. From an aerodrome operators point of view there is no safety benefit for reports about 3mm water depth, it happens frequently. The reportable depth of (standing or running) water should be taken into relation with the contaminated surface (e.g. more than 50% of the runway surface area).

response Noted

The important parameter is the depth of the water.

comment 484 comment by: *AIRBUS*

Please make the following modifications of clarifications:

In **GM1 38e Runway surface conditions (RMT.0704)**, the meaning of this sentence is not clear. We understand the intent to be that all stakeholders speak a common language, and that the reportable contaminants allow to determine performance in a deterministic way, but we do not think that is clearly expressed by the present sentence.

In **GM1 38f (c) Runway surface condition descriptors (RMT.0704)**, it is stated that when frost causes very slippery conditions, "it is then reported appropriately as



	<p>‘reduced braking action’’. The single quotes seem to indicate that this is referring to actual text that will be reported as stated in the SNOW-TAM, but in fact, the reduced braking action will be conveyed with a downgraded RWYCC. We believe that it would be clearer to remove the quotes and mention the downgrading. Same for “GM1 38f (g)”.</p> <p>In GM2 41a Slippery wet runway (RMT.0704), the criterion for reporting a slippery runway is limited to friction measurements below the minimum level. But the airport should also report Slippery Wet runways when there are repetitive pilot reports of reduced braking action in wet condition. There have been cases in which a consistently reduced friction has been observed in aircraft braking data while friction values measured with ground vehicles was above the minimum friction level set by the State.</p>
response	Accepted
comment	<p>625 comment by: CAA Norway</p> <p>Definitions COMMENT: Must be coordinated with the outcome of NPA 2018-6 (D). RATIONALE: NPA 2018-6 (D) introduces changes to this paragraph as well.</p> <p>GM1 41b Specially prepared winter runway COMMENT: This should probably be GM1 41c. RATIONALE: Editorial</p>
response	Accepted
	<p>In regard to the definitions and the alignment with the outcome of NPA 2018-6 (D), this is noted.</p> <p>In regard to the editorial change, the comment is accepted.</p>
comment	<p>670 comment by: Amsterdam Airport Schiphol</p> <p>Ref. GM1 41a</p> <p>From an infrastructural point of view, 100 meter length is not considered ‘significant’ when a runway is 3,5 km long. The significance of 100 meter seems to be based on aeroplane performance rather than on the total length of the runway infrastructure. It is suggested to clarify this matter in the text of GM1 41a.</p>
response	<p>Noted</p> <p>The content of the GM is based on ICAO Annex 14; however, EASA does not see any added value to provide more explanation, as suggested.</p>

comment	769	comment by: SAS
	Supported	
response	Noted	
	EASA would like to thank you for your support regarding the proposed changes.	
comment	1408	comment by: Copenhagen Airports A/S
	Subject: GM1 38f "and it is then reported appropriately as 'reduced braking action'."	
	Proposal: Delete sentence (and similar terminology of 'reduced braking action' are corrected).	
	Justification: There should be a clear distinguish in termonology for origination of the assessed runway condition. Reference of braking action should not be used if the definiton is meant for aerodrome reports. The term 'reduced braking action' appears in an ICAO proposal but is not transfered to amendment 13b of ICAO Annex 14.	
response	Accepted	
	The part of the sentence 'reduced braking action' is replaced with 'downgraded RWYCC'.	
comment	1576	comment by: Atle Vivas
	Definitions	
	COMMENT: Must be coordinated with the outcome of NPA 2018-6 (D).	
	RATIONALE: NPA 2018-6 (D) introduces changes to this paragraph as well.	
response	Accepted	
	The final text is coordinated with the text of NPA 2008-06 (AWO); however, for this NPA, the existing text of Regulation (EU) No 139/2014 and the associated material were taken as reference.	
comment	1721	comment by: Danish Transport, Construction and Housing Authority
	Comment to GM1 38f (c): We recommend that you instead downgrade a very slippery runway surface to a lower RWYCC in RCAM.	
response	Accepted	
	The part of the sentence 'reduced braking action' is replaced with 'downgraded RWYCC'.	



AMC & GM to Annex II (Part-ADR.AR) to Regulation (EU) No 139/2014

p. 77

comment 276 comment by: *Gatwick Airport*
No Comment

response Noted

comment 770 comment by: *SAS*
Supported

response Noted
EASA would like to thank you for your support regarding the proposed changes.

comment 1238 comment by: *Swedish Transport Agency*
Definitions
COMMENT: Must be coordinated with the outcome of NPA 2018-6 (D).
RATIONALE: NPA 2018-6 (D) introduces changes to this paragraph as well.

response Accepted
The final text is coordinated with the text of NPA 2008-06 (AWO); however, for this NPA, the existing text of Regulation (EU) No 139/2014 and the associated material were taken as reference.

comment 1438 comment by: *Danish Transport, Construction and Housing Authority*
Support CAA Norway

response Noted
EASA would like to thank you for your support regarding the proposed changes.

comment 1949 comment by: *European Cockpit Association*
GM1 41b Specially prepared winter runway (RMT.0704)
ECA's comment: remove.
Rationale: See page 57

response Not accepted
Please refer to the response to your similar comment in regard to the introduction of the operations on specially prepared winter runways.



AMC1 ADR.AR.C.010 Oversight programme

p. 77-78

comment	277	comment by: <i>Gatwick Airport</i>
	No Comment	
response	Noted	

comment	404	comment by: <i>Federal Ministry of Transport Germany, Aerodrome Department</i>
	<p>Es ist unklar, was mit der neu integrierten Formulierung „work programme“ unter b)16) gemeint sein soll, da es hierzu keine Konkretisierung gibt. Unseres Erachtens ist es ausreichend das safety programme und das effektive Funktionieren des RWST zu prüfen. Die o.g. Phrase sollte daher gestrichen werden. Es sieht zwar nur nach einer kleinen Änderung aus, bedeutet aber, dass die Behörde das entsprechend festlegen und die Überwachung dokumentieren muss.</p>	
response	<p>Accepted</p> <p>The text has been reworded.</p>	

comment	626	comment by: <i>CAA Norway</i>
	<p>AMC1 ADR.AR.C.010 Oversight programme COMMENT: Supported RATIONALE: A logical consequence of changes to 139/2014</p>	
response	<p>Noted</p> <p>EASA would like to thank you for your support regarding the proposed changes.</p>	

comment	771	comment by: <i>SAS</i>
	Supported	
response	<p>Noted</p> <p>EASA would like to thank you for your support regarding the proposed changes.</p>	

comment	1003	comment by: <i>Swedish Transport Agency</i>
	Supported.	
response	<p>Noted</p> <p>EASA would like to thank you for your support regarding the proposed changes.</p>	



comment	1581	comment by: <i>Atle Vivas</i>
	<p>AMC1 ADR.AR.C.010 Oversight programme</p> <p>COMMENT: Supported</p> <p>RATIONALE: A logical consequence of changes to 139/2014</p>	
response	<p>Noted</p> <p>EASA would like to thank you for your support regarding the proposed changes.</p>	
comment	1913	comment by: <i>IATA</i>
	<p>IATA / Delta comments:</p> <p>On Runway Incursion prevention</p> <p>At JFK they built a perimeter road inside the secure area. The significance of this is that there is <u>never</u> a need for a non-emergency vehicle to access the runway unless there is a specified valid reason such as runway FOD sweep.</p> <p>It might take a vehicle an extra 10-15 minutes to drive to their destination, but that is preferred over the risks of a runway incursion.</p> <p>EASA should be encouraged to explore the development of similar perimeter roads that do not cross runways.</p>	
response	<p>Noted</p> <p>EASA provides guidance for the provision of perimeter and relevant service roads at aerodromes (see for instance GM1 ADR-DSN.D.240, GM1 ADR-DSN.T.920, GM1 ADR-DSN.T.900). However, the proposal will be further reviewed to assess any need for possible improvement.</p>	

GM1 ADR.AR.C.035(e) Issuance of Certificate
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p. 78-79

comment	278	comment by: <i>Gatwick Airport</i>
	<p>No Comment</p>	
response	<p>Noted</p>	
comment	627	comment by: <i>CAA Norway</i>
	<p>GM1 ADR.AR.C.035(e) Issuance of Certificate</p> <p>COMMENT: Must be coordinated with the outcome of NPA 2018-6 (D).</p> <p>RATIONALE: NPA 2018-6 (D) introduces changes to this paragraph as well.</p>	
response	<p>Accepted</p>	



	The final text is coordinated with the text of NPA 2008-06 (AWO); however, for this NPA, the existing text of Regulation (EU) No 139/2014 was taken as reference.	
comment	772	comment by: SAS
	Supported	
response	Noted	
	EASA would like to thank you for your support regarding the proposed changes.	
comment	1239	comment by: Swedish Transport Agency
	COMMENT: Must be coordinated with the outcome of NPA 2018-6 (D).	
	RATIONALE: NPA 2018-6 (D) introduces changes to this paragraph as well.	
response	Accepted	
	The final text is coordinated with the text of NPA 2008-06 (AWO); however, for this NPA, the existing text of Regulation (EU) No 139/2014 was taken as reference.	
comment	1461	comment by: Danish Transport, Construction and Housing Authority
	Comment: The Danish CAA recommends that a point about fuel is added to the 'Terms of the certificate'	
	Rationale: To day we have a point about fuel in the 'Terms of certificate'. This we can recomend.	
response	Noted	
	This proposal is outside the scope of this NPA. However, the proposal will be further reviewed to assess the need for possible future amendment of the definition of the terms of the certificate.	
comment	1582	comment by: Atle Vivas
	GM1 ADR.AR.C.035(e) Issuance of Certificate	
	COMMENT: Must be coordinated with the outcome of NPA 2018-6 (D).	
	RATIONALE: NPA 2018-6 (D) introduces changes to this paragraph as well.	
response	Accepted	
	The final text is coordinated with the text of NPA 2008-06 (AWO); however, for this NPA, the existing text of Regulation (EU) No 139/2014 was taken as reference.	

AMC & GM to Annex III (Part-ADR.OR) to Regulation (EU) No 139/2014

p. 79

comment	279	comment by: <i>Gatwick Airport</i>
	No comment	
response	Noted	
comment	773	comment by: <i>SAS</i>
	Supported	
response	Noted	
	EASA would like to thank you for your support regarding the proposed changes.	

GM1 ADR.OR.B.040(a);(b) Changes

p. 79-80

comment	280	comment by: <i>Gatwick Airport</i>
	No Comment	
response	Noted	
comment	324	comment by: <i>John Hamshare (Heathrow)</i>
	Page 80 – GM1 ADR.OPS.B.040 (g) – clarify what types of driver training require CAA approval.	
response	Noted	
	Please note that the particular GM only lists the rules which (themselves) contain a requirement for a competent authority approval.	
comment	628	comment by: <i>CAA Norway</i>
	GM1 ADR.OR.B.040(a);(b) Changes	
	COMMENT: Must be coordinated with the outcome of NPA 2018-6 (D).	
	RATIONALE: NPA 2018-6 (D) introduces changes to this paragraph as well.	
	COMMENT: It should be stated that changes to processes and procedures related operation on specially prepared winter runways need prior approval.	
	RATIONALE: In order to ensure continued validity of the approval. Ensures harmonisation with the proposal from NPA 2018-6 (D) AWO.	
response	Accepted	



The final text is coordinated with the text of NPA 2008-06 (AWO); however, for this NPA, the existing text of Regulation (EU) No 139/2014 was taken as reference.

comment 774 comment by: SAS

Supported

response Noted

EASA would like to thank you for your support regarding the proposed changes.

comment 934 comment by: ADV - German Airports Association

Delete (g).

How is the CA supposed to assess this? The ultimate responsibility remains with the ADR Operator.

response Noted

Please note that the particular GM only lists the rules which (themselves) contain a requirement for a competent authority approval. This point has been removed.

comment 959 comment by: Aerodrome safety regulation departement

We suggest to remove the amendment in accordance with our comment on ADR.OPS.B.025 d)

response Accepted

This point has been removed.

comment 1068 comment by: ACI Europe

(g) – Prior approval of training of drivers conducted by other organisations by the CA adds additional burden and cost. It is also unclear what types of driver training require CAA approval. This should be only for manoeuvring area driving but only if the airport is not providing the training material. In such cases there should be no need for CAA to give a prior approval.

response Noted

Please note that the particular GM only lists the rules which (themselves) contain a requirement for a competent authority approval. This point has been removed.

comment 1240 comment by: Swedish Transport Agency

COMMENT: Must be coordinated with the outcome of NPA 2018-6 (D).



response	<p>RATIONALE: NPA 2018-6 (D) introduces changes to this paragraph as well.</p> <p>COMMENT: It should be stated that changes to processes and procedures related operation on specially prepared winter runways need prior approval.</p> <p>RATIONALE: In order to ensure continued validity of the approval. Ensures harmonisation with the proposal from NPA 2018-6 (D) AWO.</p> <p>Accepted</p> <p>The final text is coordinated with the text of NPA 2008-06 (AWO); however, for this NPA, the existing text of Regulation (EU) No 139/2014 was taken as reference.</p>
comment	<p>1546 comment by: <i>Danish Transport, Construction and Housing Authority</i></p> <p>Comment: This GM should be a AMC.</p> <p>Rationale: This GM contains a list of items which <u>should</u> be granted prior approval by the Competent Authority. But the Competent Authority can't enforce GM, which is why the list of items loses some of its value. Furthermore it doesn't seem right that this list of items is recommended in GM, but is required in the Implementing Rules.</p> <p>Comment to (d): EASA should define what "safety-critical aerodrome equipment" includes, as we're having a hard time figuring out what it includes precisely. In principle (in our opinion) crashtender, track lights, signs, obstacle lights and wind bags are all safety-critical, but where does EASA make the cut.</p>
response	<p>Noted</p> <p>Please note that the particular GM only lists the rules which (themselves) contain already a requirement for a competent authority approval. Therefore, it only serves as a 'reminder' of the cases which require a prior approval and which are spread in the various provisions of Regulation (EU) No 139/2014. EASA will evaluate the need for clarification about the term 'safety-critical aerodrome equipment'.</p>
comment	<p>1583 comment by: <i>Atle Vivas</i></p> <p>GM1 ADR.OR.B.040(a);(b) Changes</p> <p>COMMENT: Must be coordinated with the outcome of NPA 2018-6 (D).</p> <p>RATIONALE: NPA 2018-6 (D) introduces changes to this paragraph as well.</p> <p>COMMENT: It should be stated that changes to processes and procedures related operation on specially prepared winter runways need prior approval.</p> <p>RATIONALE: In order to ensure continued validity of the approval. Ensures harmonisation with the proposal from NPA 2018-6 (D) AWO.</p>
response	<p>Accepted</p>



The final text is coordinated with the text of NPA 2008-06 (AWO); however, for this NPA, the existing text of Regulation (EU) No 139/2014 was taken as reference.

comment	1765	comment by: <i>UAF (Union des Aéroports Français)</i>
	UAF fully support ACI E comment#1068	
response	Noted	
	Please refer to the reply to comment No 1068.	

AMC3 ADR.OR.E.005 Aerodrome manual	p. 80-81
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comment	56	comment by: <i>Aerodrome safety regulation departement</i>
	This AMC might be updated depending on comments on other IR and AMC.	
response	Accepted	
	The AMC has been updated as necessary.	

comment	281	comment by: <i>Gatwick Airport</i>
	No Comment	
response	Noted	

comment	629	comment by: <i>CAA Norway</i>
	AMC3 ADR.OR.E.005 Aerodrome manual	
	COMMENT: Supported.	
response	Noted	
	EASA would like to thank you for your support regarding the proposed changes.	

comment	775	comment by: <i>SAS</i>
	Supported	
response	Noted	
	EASA would like to thank you for your support regarding the proposed changes.	

comment	1241	comment by: <i>Swedish Transport Agency</i>
	Supported.	



response	Noted EASA would like to thank you for your support regarding the proposed changes.
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comment	1539 comment by: <i>Brussels Airport Company</i> Proposal to list the new chapters 30 and 31 as one line each. Further detail (e.g. 30.1-30.5 and 31.1-31.5) should be listed as GM to be adapted to the needs of each individual aerodrome operator.
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response	Accepted The AMC has been amended as proposed.
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comment	1584 comment by: <i>Atle Vivas</i> Supported
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response	Noted EASA would like to thank you for your support regarding the proposed changes.
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comment	1861 comment by: <i>Danish Transport, Construction and Housing Authority</i> Supported
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response	Noted EASA would like to thank you for your support regarding the proposed changes.
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AMC & GM to Annex IV (Part-ADR.OPS) to Regulation (EU) No 139/2014	p. 81
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comment	282 comment by: <i>Gatwick Airport</i> Agree
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response	Noted EASA would like to thank you for your support regarding the proposed changes.
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comment	776 comment by: <i>SAS</i> Supported
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response	Noted EASA would like to thank you for your support regarding the proposed changes.
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GM1 ADR.OPS.A.005 Aerodrome data

p. 81-83

comment	283	comment by: Gatwick Airport
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	No Comment	
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response	Noted	
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comment	630	comment by: CAA Norway
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GM1 ADR.OPS.A.005 Aerodrome data (RMT.0704)

COMMENT: Supported.

response	Noted	
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EASA would like to thank you for your support regarding the proposed changes.

comment	777	comment by: SAS
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Supported

response	Noted	
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EASA would like to thank you for your support regarding the proposed changes.

comment	1414	comment by: Norwegian Air (Norwegian Air Norway, Norwegian Air International, Norwegian Air UK and Norwegian Air Shuttle)
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Supported.

response	Noted	
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EASA would like to thank you for your support regarding the proposed changes.

comment	1586	comment by: Atle Vivas
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Supported

response	Noted	
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EASA would like to thank you for your support regarding the proposed changes.

comment	1862	comment by: Danish Transport, Construction and Housing Authority
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Supported

response	Noted	
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EASA would like to thank you for your support regarding the proposed changes.



AMC1 ADR.OPS.A.057(a) Origination of NOTAM

p. 84

comment	221	comment by: <i>GdF</i>
	Do you consider that ADR.OR.D.017 needs to be amended to incorporate all general training provisions, in order to avoid repetition of requirements and ensure legal certainty?	
	Yes, to ensure legal certainty	
response	Noted	
	EASA would like to thank you for sharing your view regarding the structure of rules on training.	
comment	285	comment by: <i>Gatwick Airport</i>
	No Comment	
response	Noted	
comment	631	comment by: <i>CAA Norway</i>
	AMC1 ADR.OPS.A.057(a) Origination of NOTAM	
	COMMENT: Supported.	
response	Noted	
	EASA would like to thank you for your support regarding the proposed changes.	
comment	778	comment by: <i>SAS</i>
	Supported	
response	Noted	
	EASA would like to thank you for your support regarding the proposed changes.	
comment	836	comment by: <i>Aena Aeropuertos, S.A.</i>
	* The NOTAM issue does not require any prior consultation with the competent authority. In our case, all situations in which a NOTAM initiated by the airport would imply a consultation with the Competent Authority, are covered under the procedures for assesment of changes. In addition, we believe that this part of the AMC can cause confusion and generate additional risks, for example, in emergency situations when a NOTAM should be originated urgently. That is why we believe that this requirement should be eliminated.	



response	Noted The AMC does not require the consultation with the competent authority at all times, but it states that ‘the procedures [of the aerodrome operator] should specify the cases in which the Competent Authority has to be consulted prior to the origination of the NOTAM’. The fact that there is an agreed procedure for the management of changes between the competent authority and the aerodrome operator does not mean that the procedure for originating a NOTAM does not need not to contain all the necessary information for the end users.
comment	904 comment by: Aleksandar Ilkovski AMC1 ADR.OPS.A.057(a): Needs to be specified or detailed more – examples to be included.
response	Noted The relevant AMC refers to the content of the procedures the aerodrome operator needs to have in place.
comment	1069 comment by: ACI Europe The cases when not to issue a NOTAM is a specific standard (5.1.1.3) in ICAO Annex 15. This text is on GM-level and not identical to Annex 15. ACI believes this should be aligned with Annex 15 and AMC-level to be considered.
response	Noted This text, which has been enriched, provides only guidance regarding the non-origination of NOTAM, because such cases are not eligible for NOTAM issuance in accordance with the applicable AIS regulatory framework. It is the responsibility of the aerodrome operator to ensure that it does not originates a NOTAM of any kind, which is not allowed to be issued. Therefore, the reference to the relevant draft regulation is considered to be adequate in this case.
comment	1242 comment by: Swedish Transport Agency COMMENT: Remove the text about consulting the Competent Authority prior to the origination of a NOTAM. RATIONALE: There is no need to consult the Competent Authority prior to the origination of a NOTAM. If this should be the case, it needs clarification
response	Noted The AMC does not require the consultation with the competent authority at all times, but it states that ‘the procedures [of the aerodrome operator] should specify the cases in which the Competent Authority has to be consulted prior to the origination



of the NOTAM'. As an example, there may be cases which involve planned activities which require a competent authority approval. The text has been reworded to avoid misinterpretation.

comment 1544 comment by: *Brussels Airport Company*

Proposal to delete the second section ('Moreover, the procedures should...') because of the following rationale:

- which cases would require prior approval of the CA?
- if CA has to be consulted and informed, this implies (depending on the answer to the question above) 24/7 availability of the CA
- in cases where the NOTAM is issued as an immediate reaction, how can the NOTAM emittent consult the CA? For e.g. works lasting more than three months, the issuance of NOTAMs or AIP SUPs will be part of a risk identification and mitigation process, which is submitted to the CA well before the start of works.

response Noted

The AMC does not require the consultation with the competent authority at all times, but it states that 'the procedures [of the aerodrome operator] should specify the cases in which the Competent Authority has to be consulted prior to the origination of the NOTAM'. As an example, there may be cases which involve planned activities which require a competent authority approval. EASA has the view that the issues mentioned in the comment need to be agreed with the competent authority. The text has been reworded to avoid misinterpretation.

comment 1587 comment by: *Atle Vivas*

Supported

response Noted

EASA would like to thank you for your support regarding the proposed changes.

comment 1863 comment by: *Danish Transport, Construction and Housing Authority*

Supported

response Noted

EASA would like to thank you for your support regarding the proposed changes.

comment 1950 comment by: *European Cockpit Association*

GM1 ADR.OPS.A.057(c) Origination of NOTAM (RMT.0703)

b) runway marking work when aircraft operations can safely be conducted on other available runways or when the equipment used can be removed, when necessary;



	<p>ECA's comment: Disagree.</p> <p>Rationale: The non-availability of a runway should always constitute reason to issue a NOTAM, even if operations can be "conducted safely on other runways". The clause behind the "or" is acceptable, yet a time-lag for the removal of the equipment should be specified and in accordance with operational needs (RWY xx avbl on xx minutes notice).</p>
response	<p>Accepted</p> <p>The text has been amended in the suggested direction.</p>

GM1 ADR.OPS.A.057(c) Origination of NOTAM	p. 84-85
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comment	<p>284 comment by: <i>Gatwick Airport</i></p> <p>Should consider timings of unserviceabilities as there is no guidance prescribed in this section.</p>
response	<p>Noted</p> <p>The proposed guidance reproduces cases which are contained in Annex 15 and the relevant Opinion No 02/2018 on AIS provision.</p>
comment	<p>405 comment by: <i>Federal Ministry of Transport Germany, Aerodrome Department</i></p> <p>Es wäre wünschenswert, wenn der Text in den Absätzen eins und zwei klarer und verständlicher formuliert würde. Es ist für uns nicht klar, was mit dem zweiten Absatz gemeint ist und was die Konsequenz daraus ist.</p>
response	<p>Accepted</p> <p>The text has been amended to provide additional information.</p>
comment	<p>632 comment by: <i>CAA Norway</i></p> <p>GM1 ADR.OPS.A.057(c) Origination of NOTAM COMMENT: Supported.</p>
response	<p>Noted</p> <p>EASA would like to thank you for your support regarding the proposed changes.</p>
comment	<p>779 comment by: <i>SAS</i></p> <p>Supported</p>



response	Noted EASA would like to thank you for your support regarding the proposed changes.
comment	829 comment by: <i>Aena Aeropuertos, S.A.</i> * (n) When it is established that the aerodrome operator should not originate NOTAM in the case of fireworks below the minimum flight heights, it could be confusing and not advisable, since the emission of NOTAM is the result of a risk assessment analysis that establishes the measure that is required. In addition, there may be emergency or safety operations below the flight level. That paragraph should be deleted because it restricts the actions that could be taken to mitigate the risks after the risk assessment. * (o) It would be necessary to add in the list of NOTAM that it would not be necessary to generate the closures of the area of movement of less than one hour not programmed.
response	Noted The proposed guidance reproduces cases which are contained in Annex 15 and the relevant Opinion No 02/2018 on AIS provision.
comment	1015 comment by: <i>Flughafen Berlin Brandenburg GmbH</i> What is the underlying rationale AMC1 ADR.OPS.A.057 (f) to introduce in section (o) one hour as a threshold and no other value?
response	Noted We understand that your comment refers to GM1 ADR.OPS.A.057(c). The proposed guidance reproduces cases which are contained in Annex 15 and the relevant Opinion No 02/2018 on AIS provision, and which are not eligible for publication through a NOTAM (thus there is no point in originating a NOTAM).
comment	1588 comment by: <i>Atle Vivas</i> Supported
response	Noted EASA would like to thank you for your support regarding the proposed changes.
comment	1725 comment by: <i>Brussels Airport Company</i> Proposal to elevate this GM to IR level, as this is a standard in ICAO Annex 15 (ref. 6.3.2.4) to reduce the volume of NOTAMs. Stick strictly to the list issued in ICAO Annex 15 reference 6.3.2.4 in order to achieve commonalities worldwide. This will be beneficial for the use by pilots.



response	Noted
	The referenced paragraph concerns the issuance of a NOTAM, not its origination. The responsibility of an aerodrome operator is to originate NOTAMs, and not to issue NOTAMs. The issuance of NOTAMs by the AIS providers is regulated through a separate framework. Therefore, a mere reference to the rules which prescribe when a NOTAM will not be issued, along with the training of the aerodrome personnel in the relevant regulatory framework, is considered satisfactory.

comment	1864	comment by: Danish Transport, Construction and Housing Authority
	Supported	

response	Noted
	EASA would like to thank you for your support regarding the proposed changes.

GM1 ADR.OPS.A.057(d)(1) Origination of NOTAM	p. 85
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comment	287	comment by: Gatwick Airport
	No comment	

response	Noted
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comment	406	comment by: Federal Ministry of Transport Germany, Aerodrome Department
	Es wäre wünschenswert, wenn der Text in den Absätzen eins und zwei klarer und verständlicher formuliert würde. Es ist für uns nicht klar, was mit dem zweiten Absatz gemeint ist und was die Konsequenz daraus ist.	

response	Noted
	The proposed material refer to two ICAO documents which provide information on the competition of a NOTAM, and the use of relevant abbreviations that are used in NOTAM development. EASA will consider the need to develop further guidance in this area.

comment	633	comment by: CAA Norway
	GM1 ADR.OPS.A.057(d)(1) Origination of NOTAM COMMENT: Supported.	

response	Noted
	EASA would like to thank you for your support regarding the proposed changes.



comment	780	comment by: SAS
	Supported	
response	Noted EASA would like to thank you for your support regarding the proposed changes.	
comment	1589	comment by: Atle Vivas
	Supported	
response	Noted EASA would like to thank you for your support regarding the proposed changes.	
comment	1734	comment by: Copenhagen Airports A/S
	Subject: Format Proposal: Refer to Eurocontrol SNOWTAM Harmonisation Guidelines. Justification: Matters of snowtam syntax can be a challenge in order to get the SNOWTAM to the enduser automatically. Copenhagen Airports uses the Eurocontrol Harmanisation Guidelines incooperation with AIS provider to correctly forward the various fields to EAD. We strongly supports the work of Eurocontrol to manage this field between aerodrome operator and AIS providers.	
response	Noted The SNOWTAM Format is based on Annex 15; however, some changes have been introduced as an outcome of the work of the rulemaking group and the introduction of the Global Reporting Format.	
comment	1865	comment by: Danish Transport, Construction and Housing Authority
	Supported	
response	Noted EASA would like to thank you for your support regarding the proposed changes.	

GM1 ADR.OPS.A.057(d)(4) Origination of NOTAM

p. 85-89

comment	62	comment by: Aerodrome safety regulation departement
	This GM has not been coordinated with RMT 704 and thus does not integrate the differences with ICAO provisions regarding SLIPPERY WET and SPECIALLY PREPARED WINTER DESCRIPTOR (Item G) and publication ban of friction measures (item S). Moreover, consistency with ATM/AIS provisions should be checked about the frame of SNOWTAM on both these items.	



response	Accepted The text has been reviewed and amended.
comment	<p>204 comment by: <i>Per Ove Torsteinsson</i></p> <p>Item G of the SNOWTAM format should be expanded with the following condition descriptions - in order to inform pilots about the current percentage of ice when this contamination is combined with other types: DRY SNOW ON TOP OF 10 PCT ICE DRY SNOW ON TOP OF 25 PCT ICE DRY SNOW ON TOP OF 50 PCT ICE (DRY SNOW ON TOP OF ICE) WET SNOW ON TOP OF 10 PCT ICE WET SNOW ON TOP OF 25 PCT ICE WET SNOW ON TOP OF 50 PCT ICE (WET SNOW ON TOP OF ICE)</p> <p>If the runway is covered with dry/wet snow on top of a smaller percentage of ice (50% or less), this will allow the SNOWTAM to report conditions like: RWY XX COVERED WITH 100 PCT DRY SNOW ON TOP OF XX PCT ICE.</p> <p>If the runway is covered with dry/wet snow on top of ice covering more than 50% of the surface, the SNOWTAM will be as already described: RWY XX COVERED WITH 100 PCT DRY SNOW ON TOP OF ICE.</p>
response	Not accepted The information is not usable by the flight crews for performance calculations.
comment	<p>286 comment by: <i>Gatwick Airport</i></p> <p>Item Sierra. Insertion of Friction co-efficient and friction measuring device. Need to clarify UK position of passing friction information on a NOTAM.</p>
response	Noted
comment	<p>338 comment by: <i>Avinor AS</i></p> <p>Item G — Condition description for each runway third. Any of the following condition descriptions for each runway third, separated by an oblique stroke, should be inserted. COMMENT: Add the Descriptor 'SPECIALLY PREPARED WINTER RUNWAY' RATIONALE: This is now a runway condition descriptor. It is used in the RCAM and is essential information to pilots as there are specific ways, ref the work of RMT.0296 on how to use the information in their performance calculations for both take-off and landing. Ref also our comments to ADR.OPS.A, APPENDIX 2.</p>



response	Accepted
comment	<p>407 comment by: <i>Federal Ministry of Transport Germany, Aerodrome Department</i></p> <p>Das Ausfüllen des SNOWTAM Formulars wird detailliert beschrieben. Hier sollte auf das entsprechende Dokument der ICAO verwiesen werden. Dieses enthält neben den Hinweisen zum Ausfüllen der SNOWTAM Formulare auch solche für NOTAM. Siehe auch Kommentierung zu Appendix 1 – NOTAM FORMAT , Appendix 2 – SNOWTAM FORMAT</p> <p>Auf Seite 89 unter Punkt “Item N” deckt sich der Inhalt des NPA nicht mit dem des PANS AIM. Vermutlich wurde beim Kopieren nochmal der Text der Piste eingefügt. Wir bitten darum, den Text an das ICAO Dokument anzugleichen.</p>
response	<p>Noted</p> <p>The text is identical to what has been included in Opinion No 02/2018, which mirrors the content of PANS-AIM.</p>
comment	<p>442 comment by: <i>TopP Oy</i></p> <p><u>Current Page 87 SNOWTAM item D) RWYCC:</u></p> <p><i>“... RWYCC for each runway third. Only one digit (0, 1, 2, 3, 4, 5 or 6) is inserted for each runway third, separated by an oblique stroke (n/n/n) ...”</i></p> <p><u>Proposed change:</u></p> <p><i>“... RWYCC for each runway third. Only one digit (0, 1, 2, 3, 4, 5 or 6) is inserted for each runway third, separated by an oblique stroke (n/n/n). When the conditions are not reported, this should be signified by the insertion of ‘NR’ for the appropriate runway third(s) ...”</i></p> <p><u>Rationale:</u></p> <p>In Finland we have many AFIS type regional airports, which have regular traffic only in the morning and in the evening. Due to economic reasons, outside regular traffic hours runway is not maintained and runway condition is not reported. Airport however is kept open, and if a flight plan is filed, necessary runway maintenance actions will be carried out and SNOWTAM will be published.</p> <p>During low traffic period, it is not safe to leave potentially incorrect SNOWTAM message to hang out for 8 hours. It would be better to indicate, that runway is not under maintenance.</p>
response	Noted

As it is understood, this is a standard practice; therefore, the information is of a permanent nature. In this case, it is more appropriate to disseminate this information through the AIP.

comment

443

comment by: TopP Oy

Current page 88 SNOWTAM item I) Reduced runway length:

“... Reduced runway length. The applicable runway designator and available length in metres should be inserted (e.g. RWY nn [L] or nn [C] or nn [R] REDUCED TO [n]nnn) ...”

Proposed change:

“... Reduced runway length. The applicable runway designator and reduced length in metres from threshold ‘THR’ or end of the runway ‘EOR’ should be inserted (e.g. RWY nn [L] or nn [C] or nn [R] LENGTH REDUCED [n]nnn FROM THR or EOR) ...”

Rationale:

Reduced runway length normally has effect on all aeroplane performance calculations: both take-off and landing. Blocked runway end has different effect on ASDA, TODA, TORA and LDA values as well as on OBSTACLE distance values depending on the runway direction.

Modern performance calculation tools have nominal ASD, TODA, TORA and LDA values included in the software airport data. The calculation tool itself is capable of handling runway ‘cut’ from threshold (THR) or from end of runway (EOR). This is the most self-explanatory and most convenient way to provide modified distance info pilots.

response

Not accepted

This is related to a published NOTAM for reduced declared distances and acts as a reminder for the flight crew.

comment

444

comment by: TopP Oy

Current page 88 SNOWTAM item J) Drifting snow:

“... Drifting snow on the runway. When reported, ‘DRIFTING SNOW’ should be inserted ...”

Proposed change:

“...Drifting snow on the runway. When reported, RWY nn [L] or nn [C] or nn [R] ‘DRIFTING SNOW’ should be inserted ...”

Rationale:

Drifting snow is runway related phenomena. It would be more self-explanatory for the pilots to start this item with string “RWY”, space, runway designator and space followed by standardised fixed text.



response Accepted

comment

446

comment by: TopP Oy

Current page 89 SNOWTAM item P):

“... Taxiway conditions. When taxiway conditions are reported slippery or poor, the taxiway designator followed by a space ‘POOR’ should be inserted (TWY [n or nn] POOR or ALL TWYS POOR) ...”

Propose change:

“... Taxiway conditions. When taxiway conditions are reported slippery or poor, the taxiway designator followed by a space ‘POOR’ should be inserted (TWY [n or nn] POOR or TWYS [nn]n/[nn]n/[nn]n/... POOR or ALL TWYS POOR) ...”

Rationale:

In practise maintenance actions are planned so, that certain taxiways will be kept in a pre-planned condition and others in different condition.

It would be shorter and clearer to group taxiway designators having same width and snowbanks in one group inside the SNOWTAM message instead of reporting each taxiway separately.

Grouping taxiway designators could start with string “TWYS” followed by a slash “/” separated list of designators.

response Accepted

comment

447

comment by: TopP Oy

Current page 89 SNOWTAM item R):

“... Apron conditions. When apron conditions are reported slippery or poor, the apron designator followed by a space ‘POOR’ should be inserted (APRON [nnnn] POOR or ALL APRONS POOR) ...”

Propose change:

“... Apron conditions. When apron conditions are reported slippery or poor, the apron designator followed by a space ‘POOR’ should be inserted (APRON [nnnn] POOR or APRONS [nnnn]/[nnnn]/[nnnn]/... POOR or ALL APRONS POOR) ...”

Rationale:



response	<p>In practise maintenance actions are planned so, that certain aprons will be kept in a pre-planned condition and others in different condition.</p> <p>It would be shorter and clearer to group apron designators having same width and snowbanks in one group inside the SNOWTAM message instead of reporting each apron separately.</p> <p>Grouping taxiway designators could start with string “APRONS” followed by a slash “/” separated list of designators.</p>
comment	<p>485 comment by: AIRBUS</p> <p>Item S of the SNOWTAM allows to report measured friction values in a standardized manner, in line with the format proposed by ICAO. However, ICAO Annex 14 permits to report friction coefficients on Compacted Snow and Ice, while ADR.OPS.A.065 “Reporting of the runway surface condition” (d) clearly specifies that “Friction measurements shall not be reported” whatever the circumstances.</p> <p>For consistency, it is thus suggested to remove Item S and the associated note from the description of the SNOWTAM format.</p>
response	<p>Accepted</p> <p>Item S is not deleted but NR (Not Reported) is the acceptable term that should be used.</p>
comment	<p>520 comment by: UK CAA</p> <p>Page No: 89</p> <p>Paragraph No: Item S</p> <p>Comment: We recommend this item should be removed as it suggests the use of CFME and the promulgation of measured friction coefficient to pilots. This should not be allowed.</p> <p>Justification: This goes against all best practice and knowledge of the use of CFME during winter operations. It also is in conflict with ADR.OPS.A.065 (d) which states that ‘Friction measurements shall not be reported’</p>
response	<p>Accepted</p> <p>Item S is not deleted but NR (Not Reported) is the acceptable term that should be used.</p>
comment	<p>540 comment by: Finavia Oyj</p> <p><u>Current Page 87 SNOWTAM item D) RWYCC:</u></p>



“... RWYCC for each runway third. Only one digit (0, 1, 2, 3, 4, 5 or 6) is inserted for each runway third, separated by an oblique stroke (n/n/n) ...”

Proposed change:

“... RWYCC for each runway third. Only one digit (0, 1, 2, 3, 4, 5 or 6) is inserted for each runway third, separated by an oblique stroke (n/n/n).”

When the conditions are not reported, this should be signified by the insertion of ‘NR’ for the appropriate runway third(s) ...”

Rationale:

In Finland we have many AFIS type regional airports, which have regular traffic only in the morning and in the evening. Due to economic reasons, outside regular traffic hours runway is not maintained and runway condition is not reported. Airport however is kept open, and if a flight plan is filed, necessary runway maintenance actions will be carried out and SNOWTAM will be published.

During low traffic period, it is not safe to leave potentially incorrect SNOWTAM message to hang out for 8 hours. It would be better to indicate, that runway is not under maintenance.

response

Noted

As it is understood, this is a standard practice; therefore, the information is of a permanent nature. In this case, it is more appropriate to disseminate this information through the AIP.

comment

541

comment by: *Finavia Oyj*

Current page 88 SNOWTAM item I) Reduced runway length:

“... Reduced runway length. The applicable runway designator and available length in metres should be inserted (e.g. RWY nn [L] or nn [C] or nn [R] REDUCED TO [n]nnn) ...”

Proposed change:

“... Reduced runway length. The applicable runway designator and reduced length in metres from threshold ‘THR’ or end of the runway ‘EOR’ should be inserted (e.g. RWY nn [L] or nn [C] or nn [R] LENGTH REDUCED [n]nnn FROM THR or EOR) ...”

Rationale:

Reduced runway length normally has effect on all aeroplane performance calculations: both take-off and landing. Blocked runway end has different effect on ASDA, TODA, TORA and LDA values as well as on OBSTACLE distance values depending on the runway direction.

Modern performance calculation tools have nominal ASD, TODA, TORA and LDA values included in the software airport data. The calculation tool it-self is capable of handling runway ‘cut’ from threshold (THR) or from end of runway (EOR). This is the



	<p>most self-explanatory and most convenient way to provide modified distance info pilots.</p>
response	<p>Not accepted</p> <p>This is related to a published NOTAM for reduced declared distances and acts as a reminder for the flight crew.</p>
comment	<p>542 comment by: <i>Finavia Oyj</i></p> <p><u>Current page 88 SNOWTAM item J) Drifting snow:</u> <i>"... Drifting snow on the runway. When reported, 'DRIFTING SNOW' should be inserted ..."</i></p> <p><u>Proposed change:</u> <i>"...Drifting snow on the runway. When reported, RWY nn [L] or nn [C] or nn [R] 'DRIFTING SNOW' should be inserted ..."</i></p> <p><u>Rationale:</u> Drifting snow is runway related phenomena. It would be more self-explanatory for the pilots to start this item with string "RWY", space, runway designator and space followed by standardised fixed text.</p>
response	<p>Accepted</p>
comment	<p>543 comment by: <i>Finavia Oyj</i></p> <p><u>Current page 89 SNOWTAM item N):</u> <i>"...Snow banks on a taxiway. When snow banks are present on a taxiway, the taxiway designator should be inserted with a space 'SNOWBANK' and with a space left 'L' or right 'R' or both sides 'LR', followed by the distance in metres from centre line separated by a space FM CL (TWY [nn]n SNOWBANK Lnn or Rnn or LRnn FM CL) ..."</i></p> <p><u>Propose change:</u> <i>"...Snow banks on a taxiway. When snow banks are present on a taxiway, the taxiway designator should be inserted with a space 'SNOWBANK' and with a space left 'L' or right 'R' or both sides 'LR', followed by the distance in metres from centre line separated by a space FM CL (TWY [nn]n or TWYS [nn]n/[nn]n/[nn]n/... or ALL TWYS SNOWBANK Lnn or Rnn or LRnn FM CL) ..."</i></p> <p><u>Rationale:</u> In practise maintenance actions are planned so, that certain taxiways will be kept in a pre-planned condition and others in different condition.</p> <p>It would be shorter and clearer to group taxiway designators having same width and snowbanks in one group inside the SNOWTAM message instead of reporting each taxiway separately.</p>



response	<p>Grouping taxiway designators could start with string “TWYS” followed by a slash “/” separated list of designators.</p> <p>Accepted</p>
comment	<p>544 comment by: <i>Finavia Oyj</i></p> <p><u>Current page 89 SNOWTAM item P):</u> <i>“... Taxiway conditions. When taxiway conditions are reported slippery or poor, the taxiway designator followed by a space ‘POOR’ should be inserted (TWY [n or nn] POOR or ALL TWYS POOR) ...”</i></p> <p><u>Propose change:</u> <i>“... Taxiway conditions. When taxiway conditions are reported slippery or poor, the taxiway designator followed by a space ‘POOR’ should be inserted (TWY [n or nn] POOR <u>or TWYS [nn]n/[nn]n/[nn]n/... POOR</u> or ALL TWYS POOR) ...”</i></p> <p><u>Rationale:</u> In practise maintenance actions are planned so, that certain taxiways will be kept in a pre-planned condition and others in different condition.</p> <p>It would be shorter and clearer to group taxiway designators having same width and snowbanks in one group inside the SNOWTAM message instead of reporting each taxiway separately.</p> <p>Grouping taxiway designators could start with string “TWYS” followed by a slash “/” separated list of designators.</p>
response	<p>Accepted</p>
comment	<p>545 comment by: <i>Finavia Oyj</i></p> <p><u>Current page 89 SNOWTAM item R):</u> <i>“... Apron conditions. When apron conditions are reported slippery or poor, the apron designator followed by a space ‘POOR’ should be inserted (APRON [nnnn] POOR or ALL APRONS POOR) ...”</i></p> <p><u>Propose change:</u> <i>“... Apron conditions. When apron conditions are reported slippery or poor, the apron designator followed by a space ‘POOR’ should be inserted (APRON [nnnn] POOR <u>or APRONS [nnnn]/[nnnn]/[nnnn]/... POOR</u> or ALL APRONS POOR) ...”</i></p> <p><u>Rationale:</u> In practise maintenance actions are planned so, that certain aprons will be kept in a pre-planned condition and others in different condition.</p> <p>It would be shorter and clearer to group apron designators having same width and snowbanks in one group inside the SNOWTAM message instead of reporting each apron separately.</p>

response	<p>Grouping taxiway designators could start with string “APRONS” followed by a slash “/” separated list of designators.</p> <p>Accepted</p>
comment	<p>634 comment by: CAA Norway</p> <p>GM1 ADR.OPS.A.057(d)(4) Origination of NOTAM Item G — Condition description for each runway third. Any of the following condition descriptions for each runway third, separated by an oblique stroke, should be inserted.</p> <p>COMMENT: Add the Descriptor ‘SPECIALLY PREPARED WINTER RUNWAY’ RATIONALE: This is now a runway condition descriptor. It is used in the RCAM, and is essential information to pilots as there are specific ways, ref the work of RMT.0296 on how to use the information in their performance calculations for both take-off and landing.</p> <p>Ref also our comments to ADR.OPS.A, APPENDIX 2.</p>
response	<p>Accepted</p>
comment	<p>635 comment by: CAA Norway</p> <p>Item S — Measured friction coefficient. Where reported, the measured friction coefficient and friction measuring device should be inserted.</p> <p>COMMENT: Delete this item with Note. RATIONALE: ADR.OPS.A.065 (d) specifies that measured friction values shall not be reported. NOTE: Changes to the NOTAM Format will affect Regulation 2017/373 with associated Annexes. May also affect 965/2012 (Opinion No 2/2019)</p>
response	<p>Accepted</p> <p>Item S is not deleted but NR (Not Reported) is the acceptable term that should be used.</p>
comment	<p>730 comment by: SAS</p> <p>Measured frictions coefficients shall not be reported in SNOWTAM. ref: ADR.OPS.A.065 (d) specifies that measured friction values shall not be reported.</p>
response	<p>Accepted</p> <p>Item S is not deleted but NR (Not Reported) is the acceptable term that should be used.</p>
comment	<p>831 comment by: Aena Aeropuertos, S.A.</p>

	* (f) Not consistent with table on page 99 AMC1 ADR.OPS.B.065 (b); (c) "up to 15 mm" is eliminated and it should be adapted to the text of the table on page 99.
response	Noted
comment	<p>905 comment by: Aleksandar Ilkovski</p> <p>GM1 ADR.OPS.A.057(d)(4), & AMC1 ADR.OPS.A.065(b);(c) table:</p> <p>GM1 ADR.OPS.A.057(d)(4) and ADR.OPS.A.065(b);(c) table 2 does not harmonise. GM1 ADR.OPS.A.057(d)(4) states that reporting is done "up to and including 15 mm" for STANDING WATER and SLUSH. This writing is not to be found in the AMC1 ADR.OPS.A.065(b);(c) table 2.</p>
response	<p>Not accepted</p> <p>The philosophy is to remove the contaminants.</p>
comment	<p>912 comment by: Aleksandar Ilkovski</p> <p>GM1 ADR.OPS.A.057 (d)(4), & GM2 ADR.OPS.A.065(a):</p> <p>The term LOOSE SAND needs to be clarified. Different interpretations exists and varies from only including dessert sand and sand from sandstorms to also including sand spread for friction improvement. ICAO 9137 part 2 (7.7.13).</p>
response	<p>Noted</p> <p>The term used is generic in order to describe the presence of sand irrespective of origin (weather phenomena or friction improvement method).</p>
comment	<p>914 comment by: Aleksandar Ilkovski</p> <p>GM1 ADR.OPS.A.057 (d)(4):</p> <p>The proposed SNOWTAM format indicates no possibility to group taxiways (or aprons) that have the same conditions, other than "ALL TWY". This option exists today in the present format.</p> <p>It would be advised to keep this possibility in order to shorten the SNOWTAM string. See SNOWTAM HARMONISATION GUIDELINES 2.0 page 16-17.</p> <p>Ex. TWY A, B, C MEDIUM. TWY D, E POOR</p>
response	Accepted
comment	<p>1243 comment by: Swedish Transport Agency</p> <p>Item G — Condition description for each runway third. Any of the following condition descriptions for each runway third, separated by an oblique stroke, should be inserted.</p>



	<p>COMMENT: Add the Descriptor 'SPECIALLY PREPARED WINTER RUNWAY'</p> <p>RATIONALE: This is now a runway condition descriptor. It is used in the RCAM, and is essential information to pilots as there are specific ways, ref the work of RMT.0296 on how to use the information in their performance calculations for both take-off and landing.</p> <p>Ref also our comments to ADR.OPS.A, APPENDIX 2.Item S — Measured friction coefficient. Where reported, the measured friction coefficient and friction measuring device should be inserted.</p> <p>COMMENT: Delete this item with Note.</p> <p>RATIONALE: ADR.OPS.A.065 (d) specifies that measured friction values shall not be reported.</p> <p><i>NOTE: Changes to the NOTAM Format will affect Regulation 2017/373 with associated Annexes. May also affect 965/2012 (Opinion No 2/2019)</i></p>
response	<p>Accepted</p> <p>Item S is not deleted but NR (Not Reported) is the acceptable term that should be used.</p>
comment	<p>1418 <i>comment by: Norwegian Air (Norwegian Air Norway, Norwegian Air International, Norwegian Air UK and Norwegian Air Shuttle)</i></p> <p>Item S - To be deleted iaw ADR.OPS.A.065 (d). Measured friction coefficients are not to be reported.</p>
response	<p>Accepted</p> <p>Item S is not deleted but NR (Not Reported) is the acceptable term that should be used.</p>
comment	<p>1556 <i>comment by: Brussels Airport Company</i></p> <p>Should point 1. General (j)(5) not be changed to 0-6 instead of 1-5?</p> <p>Explanation under 'Item E' (This information...) is confusing and should be deleted. Proposal: to add ', except when DRY' in first sentence (Item E) and delete above mentioned sentence.</p>
response	<p>Noted</p> <p>RWYCC 0 is not normally reported because the runway is closed for maintenance and 6 is reported only when the runway is free of contaminants and follows previous RCRs,</p> <p>Nevertheless, 0 and 6 may also be used in the SNOWTAM.</p>
comment	<p>1590 <i>comment by: Atle Vivas</i></p> <p>GM1 ADR.OPS.A.057(d)(4) Origination of NOTAM</p>



	<p>Item G — Condition description for each runway third. Any of the following condition descriptions for each runway third, separated by an oblique stroke, should be inserted.</p> <p>COMMENT: Add the Descriptor ‘SPECIALLY PREPARED WINTER RUNWAY’</p> <p>RATIONALE: This is now a runway condition descriptor. It is used in the RCAM, and is essential information to pilots as there are specific ways, ref the work of RMT.0296 on how to use the information in their performance calculations for both take-off and landing.</p> <p>Ref also our comments to ADR.OPS.A, APPENDIX 2.</p> <p>Item S — Measured friction coefficient. Where reported, the measured friction coefficient and friction measuring device should be inserted.</p> <p>COMMENT: Delete this item with Note.</p> <p>RATIONALE: ADR.OPS.A.065 (d) specifies that measured friction values shall not be reported.</p> <p>NOTE: Changes to the NOTAM Format will affect Regulation 2017/373 with associated Annexes. May also affect 965/2012 (Opinion No 2/2019)</p>
response	<p>Accepted</p> <p>Item S is not deleted but NR (Not Reported) is the acceptable term that should be used.</p>

comment	<p>1786 comment by: SinaJobstHAM</p> <p>Die Gültigkeitsdauer von acht Stunden für SNOWTAMs halten wir für betrieblich nicht sinnvoll. Wir bitte um Streichung der Gültigkeitsdauer.</p>
response	<p>Noted</p>

comment	<p>1866 comment by: Danish Transport, Construction and Housing Authority</p> <p>Support CAA Norway</p>
response	<p>Noted</p>

comment	<p>1896 comment by: IATA</p> <p>IATA / FEDEX Comments : Concerned about differences with the US - Item - E - Percentages at 10% intervals are used in US.</p>
response	<p>Noted</p> <p>This is in accordance with ICAO. The reporting in 25 % percentages is easier for the runway inspectors to judge.</p>

comment	<p>1897 comment by: IATA</p>
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response	<p>IATA / FEDEX Comments: US Notam system does not include measured friction coefficient information. ONLY the RwyCC, percentages of Type and depth of contaminate for each third of the runway.</p> <p>Noted</p> <p>This will not be included in the European system as well.</p>
comment	<p>1951 comment by: <i>European Cockpit Association</i></p> <p>GM1 ADR.OPS.A.057(d)(4) Origination of NOTAM (RMT.0703) SNOWTAM FORMAT</p> <p>ECA's comment: What is the role of the SNOWTAM? ICAO FTF suggests to use RCR iso SNOWTAM in order to avoid confusion.</p>
response	<p>Noted</p> <p>The SNOWTAM is one way of providing the information. RCR is used to generate the information.</p>

GM2 ADR.OPS.A.057(d)(4) Origination of NOTAM	p. 89-90
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comment	<p>288 comment by: <i>Gatwick Airport</i></p> <p>No comment</p>
response	<p>Noted</p>
comment	<p>445 comment by: <i>TopP Oy</i></p> <p><u>Current page 89 SNOWTAM item N):</u></p> <p><i>“...Snow banks on a taxiway. When snow banks are present on a taxiway, the taxiway designator should be inserted with a space ‘SNOWBANK’ and with a space left ‘L’ or right ‘R’ or both sides ‘LR’, followed by the distance in metres from centre line separated by a space FM CL (TWY [nn]n SNOWBANK Lnn or Rnn or LRnn FM CL) ...”</i></p> <p><u>Propose change:</u></p> <p><i>“...Snow banks on a taxiway. When snow banks are present on a taxiway, the taxiway designator should be inserted with a space ‘SNOWBANK’ and with a space left ‘L’ or right ‘R’ or both sides ‘LR’, followed by the distance in metres from centre line separated by a space FM CL (TWY [nn]n <u>or TWYS [nn]n/[nn]n/[nn]n/... or ALL TWYS SNOWBANK Lnn or Rnn or LRnn FM CL) ...”</u></i></p> <p><u>Rationale:</u></p>



	<p>In practise maintenance actions are planned so, that certain taxiways will be kept in a pre-planned condition and others in different condition.</p> <p>It would be shorter and clearer to group taxiway designators having same width and snowbanks in one group inside the SNOWTAM message instead of reporting each taxiway separately.</p> <p>Grouping taxiway designators could start with string “TWYS” followed by a slash “/” separated list of designators.</p>
response	<p>Accepted</p> <p>Nevertheless, the requirement to report the location of snowbanks L or R or LR of the taxiway is deleted because it is relative to the direction of travel on the taxiway, which is not always fixed.</p>
	<p>448 comment by: <i>TopP Oy</i></p> <p><u>Current page 90 Example SNOWTAM 4:</u></p> <p>“... DRIFTING SNOW ...”</p> <p><u>Proposed change:</u></p> <p>“... RWY 09L DRIFTING SNOW ...”</p> <p><u>Rationale:</u></p> <p>Drifting snow is runway related phenomena. It would be more self-explanatory for the pilots to start this item with string “RWY”, space, runway designator and space followed by standardised fixed text.</p>
response	<p>Accepted</p>
	<p>466 comment by: <i>European Powered Flying Union</i></p> <p>GM1 ADR.OPS.A.057(d)(4) Origination of NOTAM Item M - Snow banks... p 88/207</p> <p>Well, well, well, we would not operate to/from/on such runways except in situations of urgency.</p> <p><u>Rationale</u></p> <p>For us snowbanks on a runway always are a risk. Before one declares a runway as open all snowbanks must be removed. Suitable equipment to do so exists on the market.</p>
response	<p>Noted</p>



comment	546	comment by: <i>Finavia Oyj</i>
	<p><u>Current page 90 Example SNOWTAM 4:</u> “... DRIFTING SNOW ...”</p> <p><u>Proposed change:</u> “... RWY 09L DRIFTING SNOW ...”</p> <p><u>Rationale:</u> Drifting snow is runway related phenomena. It would be more self-explanatory for the pilots to start this item with string “RWY”, space, runway designator and space followed by standardised fixed text.</p>	
response	Accepted	
comment	568	comment by: <i>ADV - German Airports Association</i>
	Examples 2, 3 and 4 contain wrong RWYCCs	
response	<p>Accepted</p> <p>The examples have been reviewed and corrected.</p>	
comment	830	comment by: <i>Aena Aeropuertos, S.A.</i>
	* Errata in GM2 examples of SNOWTAM.	
response	Accepted	
comment	908	comment by: <i>Aleksandar Ilkovski</i>
	<p>GM2 ADR.OPS.A.057 (d)(4):</p> <p>All examples of SNOWTAM are not in accordance with ADR.OPS.B.037(b) :</p> <p>(Ex 1-4)The depth of WET SNOW should be reported with 3mm or actual depth, not NR</p> <p>(Ex 2-4)Slush with greater depth than 3mm should be reported as RWYCC 2</p> <p>(Ex3 and 4) WET SNOW in section B and C is downgraded, this should be stated in the situational awareness section.</p>	
response	Accepted	
comment	1070	comment by: <i>ACI Europe</i>
	<u>General Comment:</u>	

The proposed SNOWTAM format indicates no possibility to group taxiways (or aprons) that have the same conditions, other than “ALL TWY”. This option exists today in the present format. It would be advised to keep this possibility in order to shorten the SNOWTAM string. See SNOWTAM HARMONISATION GUIDELINES 2.0 page 16-17. Ex. TWY A, B, C MEDIUM. TWY D, E POOR

SNOWTAM element J)

Drifting snow is runway related element. According to NPA, there is no runway designator before the standardised fixed text “DRIFTING SNOW”.

It would be clearer to start this element with string “RWY”, space, runway designator and space followed by standardised fixed text.

Example in according to NPA 2018-14:
DRIFTING SNOW.

Example with reference to a specific runway:
RWY 09L DRIFTING SNOW.

Item K - The term LOOSE SAND needs to be clarified. Different interpretations exists and varies from only including dessert sand and sand from sandstorms to also including sand spread for friction improvement. ICAO 9137 part 2 (7.7.13).

response

Accepted

In regard to the clarification of the meaning of LOOSE SAND, this is not strictly related to weather phenomena and is used to provide information about the existence of any loose sand on the runway surface. This is done in order to increase the situational awareness of the flight crews, but is not related to aeroplane performance.

comment

1071

comment by: ACI Europe

PROPOSED						REVISION:
02170135	09R	5/4/3/2/2	100/50/75	NR/06/06	WET/SLUSH/SLUSH)	
RATIONALE: Slush 6mm is RWYCC=2						

Example SNOWTAM 3-4: WET SNOW in section B and C is downgraded, this should be stated in the situational awareness section

Example SNOWTAM 1-4: The depth of contaminant e.g. WET SNOW should be reported with actual depth, not NR

Example SNOWTAM 4: 02170225 09C 3/2/1 75/100/100 06/12/12 SLUSH/WET SNOW/WET SNOW 35

RATIONALE: Delete 35 in the last example. It is not part of the format.

response

Accepted

The examples have been reviewed and corrected.

comment

1244

comment by: Swedish Transport Agency

COMMENT: All examples of SNOWTAM are not in accordance with ADR.OPS.B.037(b)



response	Accepted The examples have been reviewed and corrected.
comment	1560 comment by: <i>Brussels Airport Company</i> Review examples: Example 1 NR/NR/NR should be NR/NR/03 due to WET/WET/WET SNOW Example 2 Second line slush > 03 mm must be CC 2, cannot be upgraded to 3 or 4 (upgrade only possible for CC 0 & 1 (see p.152-153)) Example 4 Give a description why upgrade or downgrade
response	Noted

AMC1 ADR.OPS.A.057(f) Origination of NOTAM	p. 90-91
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comment	289 comment by: <i>Gatwick Airport</i> No Comment
response	Noted
comment	637 comment by: <i>CAA Norway</i> AMC1 ADR.OPS.A.057(f) Origination of NOTAM COMMENT: Supported.
response	Noted EASA would like to thank you for your support regarding the proposed changes.
comment	781 comment by: <i>SAS</i> Supported
response	Noted EASA would like to thank you for your support regarding the proposed changes.
comment	1072 comment by: <i>ACI Europe</i>



The subtitle should be changed from 'TRAINING FOR NOTAM ORIGINATORS AND OTHER PERSONNEL' to 'Aerodrome Personnel involved in the originating of a NOTAM'. Rationale: The aerodrome operator shall only be responsible for its own personnel. Other categories of personnel involved in NOTAM origination should not be trained by the aerodrome.

Points (b) and (c):

ACI Europe proposes to delete the word "successful" within sections (b) and (c):

(b) Following the ~~successful~~ completion of the theoretical training, the on-the-job part of the training programme should, as a minimum, include familiarisation with the origination of a NOTAM and implementation of the relevant aerodrome operating procedures.

(c) Following the ~~successful~~ completion of the on-the-job-training, the competence of a person designated to originate a NOTAM should be assessed and if found adequate, the person may be designated as a NOTAM originator.

Rationale: The assessment mentioned in section (c) is a relevant criterion to judge if a training was successfully completed. Hence, it is sufficient to complete a training and take in an assessment afterwards.

response Partially accepted

The relevant title has been amended to remove any ambiguity regarding the applicability of the AMC. Both the theoretical and the practical training need to be successfully completed.

comment 1245 comment by: *Swedish Transport Agency*

Supported.

response Noted

EASA would like to thank you for your support regarding the proposed changes.

comment 1382 comment by: *Flughafen Berlin Brandenburg GmbH*

It might be beneficial to introduce a cross-reference to the relevant part of future OPS-requirements.

a) The theoretical part of the training of a person to be designated as a NOTAM originator should, as a minimum, cover the following areas: (1) regulatory framework governing the issuance of a NOTAM, including the cases where the origination of a NOTAM is required as per ADR.OPS.A.057.

response Noted

This AMC is a means to comply with ADR.OPS.A.057 and is already titled 'Origination of NOTAM'.

comment 1592 comment by: *Atle Vivas*



	Supported
response	Noted EASA would like to thank you for your support regarding the proposed changes.
comment	1767 comment by: UAF (Union des Aéroports Français) UAF support ACI E comment#1072
response	Noted Please refer to the reply to comment No 1072.
comment	1779 comment by: SinaJobstHAM Die Ersteller von NOTAMS Flughafenseitig werden On-the-Job dazu befähigt. Veröffentlicht wird das NOTAM über das AIS- Büro, hier wird nocheinmal formal geprüft und somit durch ein 4-Augenprinzip die Qualität gesichert. Wir sehen keine Notwendigkeit für den geplanten enormen Schulungsaufwand alle 24 Monate. Bei dem Unterpunkt (d) ist unklar auf wen dieser Schulungsbedarf abzielt. Wir empfehlen eine Streichung dieser Änderung.
response	Noted Given that aerodrome operators’ personnel originate NOTAMs, there is a need to complete relevant training.
comment	1867 comment by: Danish Transport, Construction and Housing Authority Supported
response	Noted EASA would like to thank you for your support regarding the proposed changes.

AMC1 ADR.OPS.A.065(a) Reporting of the runway surface condition	p. 91
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comment	290 comment by: Gatwick Airport No Comment
response	Noted
comment	640 comment by: CAA Norway AMC1 ADR.OPS.A.065(a) Reporting of the runway surface condition COMMENT: Supported.



response	Noted EASA would like to thank you for your support regarding the proposed changes.
comment	782 comment by: SAS Supported
response	Noted EASA would like to thank you for your support regarding the proposed changes.
comment	837 comment by: Aena Aeropuertos, S.A. Specify what information must be provided in real time to the operators, since the entire sequence of RCR codes may be too long.
response	Noted The information that must be provided in real time to the flight crews is the content of the RCR. Please also refer to the phraseology used by Air Traffic Controllers.
comment	1073 comment by: ACI Europe It is not clear how the terms SNOWTAM and RCR relate to each other. The RCR is (by definition) the aeroplane performance calculation section AND the situational awareness section. The RCR then appears to be the same as the SNOWTAM items. The difference between the two terms cannot clearly be derived from NPA 2018-14.
response	Noted The RCR is the required information in order to generate the SNOWTAM.
comment	1246 comment by: Swedish Transport Agency Supported.
response	Noted EASA would like to thank you for your support regarding the proposed changes.
comment	1402 comment by: European Transport Workers Federation - ETF The ETF thinks it is important for timely information of flight crew that the ATS unit(s) are kept up-to-date without having to wait for formalised reports : an information about the following should be made via radiotelephony as soon as possible so that it is relayed to the pilots.
response	Noted



comment	1420	comment by: <i>Norwegian Air (Norwegian Air Norway, Norwegian Air International, Norwegian Air UK and Norwegian Air Shuttle)</i>
	Supported.	
response	Noted EASA would like to thank you for your support regarding the proposed changes.	
comment	1482	comment by: <i>Ruth (Spanish CAA)</i>
	<u>AMC1 ADR.OPS.A.065(a)</u> We believe it would be necessary to develop guidance material regarding the way in which real-time information is transmitted to pilots through Air Traffic Service. Specifically, we identify the following problems: > If the information is transmitted through the ATCOs, this would mean an increase in their workload and, in addition, it does not assure that the information reaches the pilots when they need it to do the corresponding performance calculations > If the chosen option is an ATIS message, it might be excessively long.	
response	Noted The information included in the RCR is essential for the flight crews; therefore, it is not acceptable to exclude part of the information.	
comment	1502	comment by: <i>Wideroe Flyveselskap AS</i>
	Supported.	
response	Noted EASA would like to thank you for your support regarding the proposed changes.	
comment	1593	comment by: <i>Atle Vivas</i>
	Supported	
response	Noted EASA would like to thank you for your support regarding the proposed changes.	
comment	1595	comment by: <i>Atle Vivas</i>
response	Noted	
comment	1768	comment by: <i>UAF (Union des Aéroports Français)</i>

response	UAF support ACI E comment#1073
response	Noted Please refer to the reply to comment No 1073.
comment	1838 comment by: <i>Copenhagen Airports A/S</i> Subject: Reporting surface conditions Proposal: Clarification needed on term 'Wholly or partly contaminated'. Justification: Does it mean 'full or 1/3 of runway'.
response	Noted Please refer to ADR.OPS.B.037 in regard to the assessment and reporting of runway surface conditions.
comment	1898 comment by: <i>IATA</i> IATA / FEDEX Comment: Concerns that the US NOTAM system only codes RwyCC's when there is a contaminate condition present on greater than 25% of the usable runway, based on the percentage contaminate on each third. NOT if each third of the runway has "wholly or partly contaminates." This would drive the requirement to use RwyCC's when potentially less than 8% of the entire usable runway has a contaminate.
response	Noted

AMC2 ADR.OPS.A.065(a) Reporting of the runway surface condition

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comment	291 comment by: <i>Gatwick Airport</i> No Comment
response	Noted
comment	408 comment by: <i>Federal Ministry of Transport Germany, Aerodrome Department</i> Die Auflistung der unter 2) genannten Punkte sind gegenüber der ICAO vertauscht (x+xi), dies wäre unseres Erachtens jedoch aufgrund der internationalen Nutzung und Anwendbarkeit wichtig (siehe auch bisherige Kommentierung).
response	Noted



Measured friction coefficient is not related to aeroplane performance data; therefore, the information is useless to the flight crews. Please refer also to the content of the SNOWTAM, where the only entry that is allowed in Item S is NR (not reported).

comment 644 comment by: CAA Norway

AMC2 ADR.OPS.A.065(a) Reporting of the runway surface condition
COMMENT: Supported.

response Noted
EASA would like to thank you for your support regarding the proposed changes.

comment 674 comment by: Amsterdam Airport Schiphol

Ref. AMC2 ADR.OPS.A.065(a):

Points (b)(1)(i) to (b)(1)(viii) are equal to items A to H from the SNOWTAM format [aeroplane performance calculation section]. Why is a different way of summary used in this AMC? This may lead to confusion. The same remark as above applies to the situational awareness section. Points (b)(2)(i) to (b)(2)(x) are equal to the items I to T of the SNOWTAM format. Why is a different way of summary used in this AMC? This may lead to confusion.

response Noted
The RCR is the required information in order to generate the SNOWTAM.

comment 783 comment by: SAS

Supported

response Noted
EASA would like to thank you for your support regarding the proposed changes.

comment 838 comment by: Aena Aeropuertos, S.A.

* In awareness of the situation, lack of friction measurement.

response Noted
The measured friction coefficient is not related to aeroplane performance data; therefore, the information is useless to the flight crews. Please refer also to the content of the SNOWTAM, where the only entry that is allowed in Item S is NR (not reported).



comment	1020	comment by: <i>Fraport AG</i>
	Points (b)(1)(i) to (b)(1)(viii) and (b)(2)(i) to (b)(2)(x) are equal to items A to H from the SNOWTAM format [aeroplane performance calculation section]. Why is a different way of summary used in this AMC? This may lead to confusion.	
response	Noted The RCR is the required information in order to generate the SNOWTAM.	
comment	1074	comment by: <i>ACI Europe</i>
	It is not clear how the terms SNOWTAM and RCR relate to each other. The RCR is (by definition) the aeroplane performance calculation section AND the situational awareness section. The RCR then appears to be the same as the SNOWTAM items. The difference between the two terms cannot clearly be derived from NPA 2018-14.	
response	Noted The RCR is the required information in order to generate the SNOWTAM.	
comment	1247	comment by: <i>Swedish Transport Agency</i>
	Supported.	
response	Noted EASA would like to thank you for your support regarding the proposed changes.	
comment	1421	comment by: <i>Norwegian Air (Norwegian Air Norway, Norwegian Air International, Norwegian Air UK and Norwegian Air Shuttle)</i>
	Supported.	
response	Noted EASA would like to thank you for your support regarding the proposed changes.	
comment	1505	comment by: <i>Wideroe Flyveselskap AS</i>
	Supported.	
response	Noted EASA would like to thank you for your support regarding the proposed changes.	
comment	1596	comment by: <i>Atle Vivas</i>
	Supported	

response	<p>Noted</p> <p>EASA would like to thank you for your support regarding the proposed changes.</p>
comment	<p>1769 comment by: <i>UAF (Union des Aéroports Français)</i></p> <p>UAF support ACI E comment#1074</p>
response	<p>Noted</p> <p>Please refer to the reply to comment No 1074.</p>
comment	<p>1868 comment by: <i>Danish Transport, Construction and Housing Authority</i></p> <p>Supported</p>
response	<p>Noted</p> <p>EASA would like to thank you for your support regarding the proposed changes.</p>
comment	<p>1899 comment by: <i>IATA</i></p> <p>IATA / FEDEX Comment : Concerns over US differences - The US NOTAM system uses 10% increments for each third of the runway.</p>
response	<p>Noted</p>
comment	<p>1952 comment by: <i>European Cockpit Association</i></p> <p>AMC2 ADR.OPS.A.065(a) Reporting of the runway surface condition (RMT.0704)</p> <p>RUNWAY CONDITION REPORT (a) The RCR should consist of the: (1) aeroplane performance calculation section; and (2) situational awareness section. (b) The information should be included in an information string in the following order: (1) aeroplane performance calculation section:</p> <p>(i) aerodrome location indicator; (ii) date and time of assessment; (iii) lower runway designation number; (iv) RWYCC for each runway third; (v) per cent coverage contaminant for each runway third; (vi) depth of loose contaminant for each runway third; (vii) condition description for each runway third; and (viii) width of runway to which the RWYCCs apply if less than the published width. (2) Situational awareness section: (i) reduced runway length; (ii) drifting snow on the runway; (iii) loose sand on the runway; (iv) chemical treatment on the runway; (v) snowbanks on the runway; (vi) snowbanks on the taxiway; (vii) snowbanks adjacent to the runway; (viii) taxiway conditions; (ix) apron conditions; and (x) plain language remarks.</p> <p>ECA's comment: taxiway conditions should include especially the conditions on the Runway Exit Turn-Offs.</p>



response

Noted

The order of presentation of the information is better to be standardised in order to ensure that flight crews flying from other States, which are following the ICAO SNOWTAM form, are able to interpret the information correctly.

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comment

292

comment by: *Gatwick Airport*

No Comment

response

Noted

comment

303

comment by: *Finnair*

Point c): "The philosophy of the RCR is that the aerodrome operator assesses the runway surface condition whenever water, snow, slush, ice or frost are present on an operational runway. From this assessment, a RWYCC and a description of the runway surface are reported, which can be used by the flight crew for aeroplane performance calculations. This format, based on the type, depth and coverage of contaminants, is the best assessment of the runway surface condition by the aerodrome operator; however, all other pertinent information is taken into consideration and kept up to date, and changes in conditions are reported without delay."

COMMENTS:

RWYCC reported solely based on the contaminant type and depth does not necessarily accurately define the braking characteristics of the runway. In addition to reporting the type and depth of the contaminant, the RWYCC value must also take into account possible friction measurements of the runway. This means that the RWYCC based on the type/depth of the contaminant can and must take into account upgrades and downgrades based on friction device measurements, done by a competent airport authority and personnel. According to Finnair's extensive experience in operating in challenging winter conditions, it would be very dangerous indeed to merely rely on the contaminant type and depth in performance calculations, where in real life the runway can be more slippery and a downgrade in RWYCC based in friction measurements or other clues should be inserted. Also the other way is true: certain contaminant types and ambient conditions can provide a much better braking capability than the contaminant alone would suggest. In these conditions an upgrade in RWYCC must be shown. Again, Finnair has a very extensive experience in winter operations, and not allowing a downgrade/upgrade via the RWYCC would be unacceptable because of safety and operational reliability.

PROPOSAL:

Finnair proposes to change the wordings to:



	<p>c) "The philosophy of the RCR is that the aerodrome operator assesses the runway surface condition whenever water, snow, slush, ice or frost are present on an operational runway. From this assessment, a RWYCC and a description of the runway surface are reported, which can be used by the flight crew for aeroplane performance calculations. This format, based on the type, depth and coverage of contaminants and including the possible effect of RWYCC downgrade or upgrade, is the best assessment of the runway surface condition by the aerodrome operator; however, all other pertinent information is taken into consideration and kept up to date, and changes in conditions are reported without delay."</p>
response	<p>Not accepted</p> <p>The use of friction measurement devices is not excluded. This is reflected in point (c), where it is stated that all pertinent information is taken into consideration. As explained in previous responses, friction measurements do not correlate with a specific RWYCC therefore could not be taken as absolute values; however, they may be used as comparative values during the assessment to support possible upgrade or downgrade of the RWYCC, in combination with other observations.</p>
comment	<p>486 comment by: AIRBUS</p> <p>Paragraph (b) starts with "On a global level...". This seems to be taken straight from the ICAO source. Should EASA not replace this with "At European level..."? </p>
response	<p>Accepted</p>
comment	<p>647 comment by: CAA Norway</p> <p>GM1 ADR.OPS.A.065(a) Reporting of the runway surface condition COMMENT: Supported.</p>
response	<p>Noted</p> <p>EASA would like to thank you for your support regarding the proposed changes.</p>
comment	<p>784 comment by: SAS</p> <p>Supported</p>
response	<p>Noted</p> <p>EASA would like to thank you for your support regarding the proposed changes.</p>
comment	<p>896 comment by: Nordic Regional Airlines</p> <p>Point c): "The philosophy of the RCR is that the aerodrome operator assesses the runway surface condition whenever water, snow, slush, ice or frost are present on an operational runway. From this assessment, a RWYCC and a description of the runway surface are reported, which can be used by the flight crew for aeroplane</p>



performance calculations. This format, based on the type, depth and coverage of contaminants, is the best assessment of the runway surface condition by the aerodrome operator; however, all other pertinent information is taken into consideration and kept up to date, and changes in conditions are reported without delay."

COMMENTS:

RWYCC reported solely based on the contaminant type and depth does not necessarily accurately define the braking characteristics of the runway. In addition to reporting the type and depth of the contaminant, the RWYCC value must also take into account possible friction measurements and/or other approved measurements of the runway. This means that the RWYCC based on the type/depth of the contaminant can and must take into account upgrades and downgrades based on friction device and/or other approved measurements, done by a competent airport authority and personnel. It would be dangerous to merely rely on the contaminant type and depth in performance calculations, where in real life the runway can be more slippery and a downgrade in RWYCC based on friction and/or other approved measurements should be inserted. Also the other way is true: certain contaminant types and ambient conditions can provide better braking capability than the type and depth of contaminant alone would suggest. In these conditions an upgrade in RWYCC must be shown. Not allowing a downgrade/upgrade of the RWYCC would be unacceptable because of safety and operational reliability.

PROPOSAL:

Norra proposes to change the wordings to:

c) "The philosophy of the RCR is that the aerodrome operator assesses the runway surface condition whenever water, snow, slush, ice or frost are present on an operational runway. From this assessment, a RWYCC and a description of the runway surface are reported, which can be used by the flight crew for aeroplane performance calculations. This format, based on the type, depth and coverage of contaminants and including the possible effect of RWYCC downgrade or upgrade, is the best assessment of the runway surface condition by the aerodrome operator; however, all other pertinent information is taken into consideration and kept up to date, and changes in conditions are reported without delay."

response

Not accepted

The use of friction measurement devices is not excluded. This is reflected in point (c), where it is stated that all pertinent information is taken into consideration. As explained in previous responses, friction measurements do not correlate with a specific RWYCC, therefore could not be taken as absolute values; however, they may be used as comparative values during the assessment to support possible upgrade or downgrade of the RWYCC, in combination with other observations.

comment

1075

comment by: *ACI Europe*

In GM1 ADR.OPS.A.065 point (a) the term 'when necessary' suggests that an RCR can be issued without issuing a SNOWTAM. The 'string' of the RCR message however begins with the abbreviation 'SW' indicating that the message is a SNOWTAM. The term 'when necessary' is confusing.



response	<p>In point (c) the philosophy of the RCR is explained. Here 'water' is mentioned. In the SNOWTAM format 'water' is not included as a contaminant.</p> <p>Noted</p> <p>Concerning the issuance of SNOWTAM, please refer to AMC1 ADR.OPS.A.065.</p> <p>In regard to the exclusion of water from the list of contaminants, the SNOWTAM includes the effect of the existence of the water, e.g. WET, SLIPPERY WET, STANDING WATER.</p>
comment	<p>1423 comment by: Norwegian Air (Norwegian Air Norway, Norwegian Air International, Norwegian Air UK and Norwegian Air Shuttle)</p> <p>Supported.</p>
response	<p>Noted</p> <p>EASA would like to thank you for your support regarding the proposed changes.</p>
comment	<p>1510 comment by: Wideroe Flyveselskap AS</p> <p>Supported.</p>
response	<p>Noted</p> <p>EASA would like to thank you for your support regarding the proposed changes.</p>
comment	<p>1598 comment by: Atle Vivas</p> <p>Supported</p>
response	<p>Noted</p> <p>EASA would like to thank you for your support regarding the proposed changes.</p>
comment	<p>1771 comment by: UAF (Union des Aéroports Français)</p> <p>UAF support ACI E comment#1076</p>
response	<p>Noted</p> <p>Please refer to the reply to comment No 1076.</p>
comment	<p>1900 comment by: IATA</p> <p>IATA / Fedex Concern: if only 5% of the first third of the runway has water, will RwyCC's be published? This doesn't define a percentage level that will drive the reporting requirement.</p>

response

Noted

In this case, no RWYCCs will be published for this part.

GM2 ADR.OPS.A.065(a) Reporting of the runway surface condition

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comment

68

comment by: *Aerodrome safety regulation departement*

The reporting of chemical treatment in point 4) of the situational awareness section has been converted to a conditional information whereas PANS-ADR considers it to be mandatory.

Clarifications are needed about the reason for this difference with ICAO wording ?

response

Noted

The ICAO wording for this specific item is 'mandatory'; however, not always runways are chemically treated. EASA decided to use the term 'conditional' in order to ensure that this information is published only when the runway has received chemical treatment.

comment

293

comment by: *Gatwick Airport*

NO Comment

response

Noted

comment

339

comment by: *Avinor AS*

COMMENT: Suggest adding more examples of standardised free text (item 10): For example:

a) ICE CONFINED IN THE MACROTEXTURE

b) If ICE, SNOW or SNOW ON ICE, is isolated close to the runway edge, we propose to use the following standardised text in Item 10:

Format:

RWY nn[L] or nn[C] or nn[R] ICE or SNOW or SNOW ON ICE Lnn or Rnn or LRnn FM EDGE

RWY nn[L] or nn[C] or nn[R] PATCHY CONTAMINANT ON RUNWAY.

RWY nn[L] or nn[C] or nn[R] PATCHY CONTAMINANT SECN 1.

RWY nn[L] or nn[C] or nn[R] PATCHY CONTAMINANT SECN 2.

RWY nn[L] or nn[C] or nn[R] PATCHY CONTAMINANT SECN 3.

RWY nn[L] or nn[C] or nn[R] CONTAMINANT ## M FROM EDGE L SIDE.

RWY nn[L] or nn[C] or nn[R] CONTAMINANT ## M FROM EDGE R SIDE.

PATCHY CONTAMINANT ON TAXIWAYS.

RATIONALE: Standardised phrases should be used as far as possible in order to avoid ambiguity. (Ref report from OSLO workshop)

Ref ex a) above: If there is a thin film ice confined in the macrotexture, such as the tyre will be in contact with the macrotexture, the basic RWYCC would be 1. However, in many cases an upgrade to 2 or 3 could be justified. The textual information could



response	<p>be important, particularly if there is a situation with light snow precipitation or drifting snow, causing the basic RWYCC to be 0. Ref ex b) above: A common situation is where chemicals have been used and the central part of the runway is DRY or WET, but with melt water running off towards the edges, ice may form from the edge and some distance towards the centreline. In this case the information on the inward extent of the ice is important for situational awareness to the flightcrew. The chosen format is similar to the one used for snowbanks.</p> <p>Partially accepted</p> <p>Point (b) is accepted.</p> <p>Point (a) is not accepted since it is covered by the RCAM.</p>
comment	<p>409 comment by: <i>Federal Ministry of Transport Germany, Aerodrome Department</i></p> <p>Situational Awareness Section - Die Unterpunkte b)2), b)3, b)4, b)5, b)6 und b)7 enthalten im Vergleich zur ICAO andere Bezeichnungen (conditional vs. optional, conditional vs. mandatory) und sollten daher an den ICAO Text angepasst werden.</p>
response	<p>Noted</p> <p>EASA assessed the use of words ‘optional’ and ‘mandatory’ and found them not appropriate and replaced them with the word ‘conditional’. More specifically, the word ‘optional’ may be considered as information which can be omitted, although if it is available, it needs to be published, and the word ‘mandatory’ may imply that information should be published even if it is not applicable, for example CHEMICALLY TREATED, which is not always the case. EASA considers that the information in the situational awareness section is conditional and each heading describes the condition.</p>
comment	<p>449 comment by: <i>TopP Oy</i></p> <p><u>Current Page 97 item b(6) Snowbanks on taxiway:</u></p> <p>“... Format: TWY [nn]n SNOWBANK Lnn or Rnn or LRnn FM CL ...”</p> <p><u>Proposed change:</u></p> <p>“... Format: TWY [nn]n <i>or TWYS [nn]n/[nn]n/[nn]n/... or ALL TWYS</i> SNOWBANK Lnn or Rnn or LRnn FM CL ...”</p> <p><u>Rationale:</u></p> <p>In practise maintenance actions are planned so, that certain taxiways will be kept in a pre-planned condition and others in different condition.</p>



	<p>It would be shorter and clearer to group taxiway designators having same width and snowbanks in one group inside the SNOWTAM message instead of reporting each taxiway separately.</p> <p>Grouping taxiway designators could start with string “TWYS” followed by a slash “/” separated list of designators.</p>
response	<p>Accepted</p> <p>Nevertheless, the requirement to report the location of snowbanks L or R or LR of the taxiway is deleted because it is relative to the direction of travel on the taxiway, which is not always fixed.</p>
comment	<p>450 comment by: TopP Oy</p> <p><u>Current Page 97 item b(8) Taxiway conditions:</u></p> <p>“...Format: TWY [nn]n POOR ...”</p> <p><u>Proposed change:</u></p> <p>“...Format: TWY [nn]n <u>or TWYS [nn]n/[nn]n/[nn]n/... or ALL TWYS</u> POOR ...”</p> <p><u>Rationale:</u></p> <p>In practise maintenance actions are planned so, that certain taxiways will be kept in a pre-planned condition and others in different condition.</p> <p>It would be shorter and clearer to group taxiway designators having same width and snowbanks in one group inside the SNOWTAM message instead of reporting each taxiway separately.</p> <p>Grouping taxiway designators could start with string “TWYS” followed by a slash “/” separated list of designators.</p>
response	<p>Accepted</p>
comment	<p>451 comment by: TopP Oy</p> <p><u>Current Page 97 item b(9) Apron conditions:</u></p> <p>“...Format: APRON [nnnn] POOR ...”</p> <p><u>Proposes change:</u></p> <p>“...Format: APRON [nnnn] <u>or APRONS [nnnn]/[nnnn]/[nnnn]/... or ALL APRONS</u> POOR ...”</p> <p><u>Rationale:</u></p> <p>In practise maintenance actions are planned so, that certain aprons will be kept in a pre-planned condition and others in different condition.</p>

response	<p>It would be shorter and clearer to group apron designators having same width and snowbanks in one group inside the SNOWTAM message instead of reporting each apron separately.</p> <p>Grouping taxiway designators could start with string “APRONS” followed by a slash “/” separated list of designators.</p> <p>Accepted</p>
comment	<p>490 comment by: AIRBUS</p> <p>Please clarify the following points:</p> <p>The last sentence of AEROPLANE PERFORMANCE CALCULATION SECTION, paragraph (b) (5) states that any unavailable information should be replaced by “NR” in the report. Why is this statement part of the paragraph on one of the items, instead of being generic to any part of the RCR?</p> <p>Is the format given in AEROPLANE PERFORMANCE CALCULATION SECTION, paragraph (b) (7) correct?</p> <p>In SITUATIONAL AWARENESS SECTION, paragraph (b) (1) on reduced Runway length explains that this information is conditional to the publication of a NOTAM providing new declared distances. This is the intent, but is it clear enough that aerodromes must publish a NOTAM notifying of new declared distances when the full runway length is not intended to be used due to snow and ice on the runway (e.g in case of partial cleaning of the runway)? The RCR repeats the reduced LDA as it may be the only information available to an aircraft in flight, and this information would thus be necessary for landing. For takeoff crews need to rely on the full NOTAM to appropriately take into account the impact on stopway, clearway and relative obstacle positions.</p> <p>Noted</p>
comment	<p>547 comment by: Finavia Oyj</p> <p><u>Current Page 97 item b(6) Snowbanks on taxiway:</u> “... Format: TWY [nn]n SNOWBANK Lnn or Rnn or LRnn FM CL ...”</p> <p><u>Proposed change:</u> “... Format: TWY [nn]n <u>or TWYS [nn]n/[nn]n/[nn]n/... or ALL TWYS</u> SNOWBANK Lnn or Rnn or LRnn FM CL ...”</p> <p><u>Rationale:</u> In practise maintenance actions are planned so, that certain taxiways will be kept in a pre-planned condition and others in different condition.</p> <p>It would be shorter and clearer to group taxiway designators having same width and snowbanks in one group inside the SNOWTAM message instead of reporting each taxiway separately.</p>



response	<p>Grouping taxiway designators could start with string “TWYS” followed by a slash “/” separated list of designators.</p> <p>Accepted</p> <p>Nevertheless, the requirement to report the location of snowbanks L or R or LR of the taxiway is deleted because it is relative to the direction of travel on the taxiway, which is not always fixed.</p>
comment	<p>548 comment by: <i>Finavia Oyj</i></p> <p><u>Current Page 97 item b(8) Taxiway conditions:</u> “...Format: TWY [nn]n POOR ...”</p> <p><u>Proposed change:</u> “...Format: TWY [nn]n <i>or TWYS [nn]n/[nn]n/[nn]n/... or ALL TWYS POOR ...”</i></p> <p><u>Rationale:</u> In practise maintenance actions are planned so, that certain taxiways will be kept in a pre-planned condition and others in different condition.</p> <p>It would be shorter and clearer to group taxiway designators having same width and snowbanks in one group inside the SNOWTAM message instead of reporting each taxiway separately.</p> <p>Grouping taxiway designators could start with string “TWYS” followed by a slash “/” separated list of designators.</p>
response	<p>Accepted</p>
comment	<p>549 comment by: <i>Finavia Oyj</i></p> <p><u>Current Page 97 item b(9) Apron conditions:</u> “...Format: APRON [nnnn] POOR ...”</p> <p><u>Proposes change:</u> “...Format: APRON [nnnn] <i>or APRONS [nnnn]/[nnnn]/[nnnn]/... or ALL APRONS POOR ...”</i></p> <p><u>Rationale:</u> In practise maintenance actions are planned so, that certain aprons will be kept in a pre-planned condition and others in different condition.</p> <p>It would be shorter and clearer to group apron designators having same width and snowbanks in one group inside the SNOWTAM message instead of reporting each apron separately.</p> <p>Grouping taxiway designators could start with string “APRONS” followed by a slash “/” separated list of designators.</p>



response	Accepted
comment	<p>648 comment by: CAA Norway</p> <p>GM2 ADR.OPS.A.065(a) Reporting of the runway surface condition COMMENT: Suggest add more examples of standardised free text (item 10): For example: a) ICE CONFINED IN THE MACROTEXTURE b) If ICE, SNOW or SNOW ON ICE, is isolated close to the runway edge, we propose to use the following standardised text in Item 10:</p> <p>Format: RWY nn[L] or nn[C] or nn[R] ICE or SNOW or SNOW ON ICE Lnn or Rnn or LRnn FM EDGE</p> <p>RATIONALE: Standardised phrases should be used as far as possible in order to avoid ambiguity. (Ref report from OSLO workshop) Ref ex a) above: If there is a thin film ice confined in the macrotexture, such as the tyre will be in contact with the macrotexture, the basic RWYCC would be 1. However, in many cases an upgrade to 2 or 3 could be justified. The textual information could be important, particularly if there is a situation with light snow precipitation or drifting snow, causing the basic RWYCC to be 0.</p> <p>Ref ex b) above: A common situation is where chemicals have been used and the central part of the runway is DRY or WET, but with melt water running off towards the edges, ice may form from the edge and some distance towards the centreline. In this case the information on the inward extent of the ice is important for situational awareness to the flightcrew.</p> <p>b) The chosen format is similar to the one used for snowbanks</p>
response	<p>Partially accepted</p> <p>Point (b) is accepted.</p> <p>Point (a) is not accepted since it is covered by the RCAM.</p>
comment	<p>675 comment by: Amsterdam Airport Schiphol</p> <p>Ref. GM2 ADR.OPS.A.065(a) point (5):</p> <p>Considering the range of percentages that is meant by using one of the standard values it is suggested to add to the text of this GM that the percentage is a general indication for the amount of coverage and/or that the reported percentage is a worst case situation.</p>
response	<p>Noted</p> <p>Please refer to AMC1 ADR.OPS.A.065(b);(c) Table 1.</p>



comment	676	comment by: <i>Amsterdam Airport Schiphol</i>
	Ref. GM2 ADR.OPS.A.065(a) point (5):	
	The percentage of coverage is to be reported in increments of 25%, so 25%, 50%, 75% or 100%. This information is missing in the proposed GM.	
response	Noted	
	Please refer to AMC1 ADR.OPS.A.065(b);(c) Table 1.	
comment	678	comment by: <i>Amsterdam Airport Schiphol</i>
	Ref. GM2 ADR.OPS.A.065(a) point (7):	
	NOTAM text is always reported in capital letters - is the specification in this GM needed?	
response	Noted	
comment	679	comment by: <i>Amsterdam Airport Schiphol</i>
	Ref. GM2 ADR.OPS.A.065(a) point (8):	
	Reporting of the width of the RWY that applies to the RWYCC is <u>conditional</u> . It is suggested to emphasise this.	
response	Noted	
	EASA does not consider that this needs to be emphasised, since the text is clear.	
comment	680	comment by: <i>Amsterdam Airport Schiphol</i>
	Ref. GM2 ADR.OPS.A.065(a) SITUATIONAL AWARENESS SECTION point (b)(2)	
	Change text 'standardised fixed text' into 'RWY nn[L] or nn[C] or nn[R] DRIFTING SNOW'	
response	Accepted	
comment	681	comment by: <i>Amsterdam Airport Schiphol</i>
	Ref. GM2 ADR.OPS.A.065(a) SITUATIONAL AWARENESS SECTION point (b)(5):	
	Suggestion is to add guidelines for the practical application of the term 'snowbank' – when is a pile of snow a 'snowbank'? To what height can snowridges be excluded from being a 'snowbank'?	
response	Noted	

The height of the snowbank cannot be specified because it depends on the characteristics of the aeroplanes using the runway; therefore, EASA considers that the aerodrome operator may take into account the most demanding aeroplane intending to use the runway.

comment 682 comment by: *Amsterdam Airport Schiphol*
 Ref. GM2 ADR.OPS.A.065(a) SITUATIONAL AWARENESS SECTION point (b)(8):
 What does the word 'POOR' refers to? The general condition of the pavement or the estimated surface friction? Please include clarification in the GM text.

response Noted
 The word POOR refers to wheel braking and directional control.

comment 683 comment by: *Amsterdam Airport Schiphol*
 Ref. GM2 ADR.OPS.A.065(a) SITUATIONAL AWARENESS SECTION point (b)(10):
 NOTAM text is always reported in capital letters - is the specification in this GM needed?

response Noted

comment 785 comment by: *SAS*
 Supported

response Noted
 EASA would like to thank you for your support regarding the proposed changes.

comment 832 comment by: *Aena Aeroportos, S.A.*
 * (b)(4) On runways where the two headers (directions) are operated alternately there could be confusion in the order in which the thirds are transmitted.
 * There are values indicated as conditional that in ICAO are optional. Clarify if it is a typo or is intentional.

response Noted
 When runway surface conditions are reported with SNOWTAM, this is always done using the lower designation number. When this information is transmitted via air traffic controllers or ATIS, the report starts with the runway end designator which is in use.
 In regard to the replacement of the words 'optional' with 'conditional', this is done on purpose because with the former it may be understood that the information may



not be transmitted, while the intent is to always transmit the information when it is available or applicable.

comment

913

comment by: *Aleksandar Ilkovski*

GM1 ADR.OPS.A.057 (d)(4), & GM2 ADR.OPS.A.065(a):

The term LOOSE SAND needs to be clarified. Different interpretations exists and varies from only including dessert sand and sand from sandstorms to also including sand spread for friction improvement. ICAO 9137 part 2 (7.7.13).

response

Noted

In regard to the clarification of the meaning of LOOSE SAND, this is not strictly related to weather phenomena and is used to provide information about the existence of any loose sand on the runway surface. This is done in order to increase the situational awareness of the flight crews, but is not related to aeroplane performance.

comment

1025

comment by: *Fraport AG*

The text of the GM ADR.OPS.A.065(a)(b)(4) and the corresponding figure are not in line. The written text already gives two ways of reading the RWYCC

“The direction for listing the runway thirds is the direction as seen from the lower designation number.”

Versus

“The first part always means the first third of the runway as seen in the direction of landing or take-off as illustrated in Figures 1 and 2.”

The figure not really clarify what is meant.

SITUATIONAL AWARENESS SECTION

Suggestion is to add guidelines for the practical application of the term ‘snowbank’ – when is a pile of snow a ‘snowbank’? To what height can snowridges be excluded from being a ‘snowbank’?

response

Noted

When runway surface conditions are reported with SNOWTAM, this is always done using the lower designation number. When this information is transmitted via air traffic controllers or ATIS, the report starts with the runway end designator which is in use.

In regard to the second comment, the height of the snowbank cannot be specified because it depends on the characteristics of the aeroplanes using the runway; therefore, EASA considers that the aerodrome operator may take into account the most demanding aeroplane intending to use the runway.



comment	<p>1076 comment by: <i>ACI Europe</i></p> <p>This GM only addresses landing distance available (LDA). Reduced runway length also applies to take-off runways. TORA, TODA and ASDA can also be affected by winter conditions. It is unclear why these declared distances are not addressed by this GM.</p>
response	<p>Noted</p> <p>The publication of the reduced runway length is applicable only when there is a published NOTAM where declared distances are reduced. It is expected that flight crews are aware of the related NOTAM.</p>
comment	<p>1248 comment by: <i>Swedish Transport Agency</i></p> <p>COMMENT: Suggest add more examples of standardised free text (item 10): For example:</p> <p style="margin-left: 40px;">a) ICE CONFINED IN THE MACROTEXTURE</p> <p style="margin-left: 80px;">b) If ICE, SNOW or SNOW ON ICE, is isolated close to the runway edge, we propose to use the following standardised text in Item 10:</p> <p style="margin-left: 120px;">Format: RWY nn[L] or nn[C] or nn[R] ICE or SNOW or SNOW ON ICE Lnn or Rnn or LRnn FM EDGE</p> <p>StandardisedRATIONALE: Standardised phrases should be used as far as possible in order to avoid ambiguity. (Ref report from OSLO workshop)</p> <p>Ref ex a) above: If there is a thin film ice confined in the macrotexture, such as the tyre will be in contact with the macrotexture, the basic RWYCC would be 1. However, in many cases an upgrade to 2 or 3 could be justified. The textual information could be important, particularly if there is a situation with light snow precipitation or drifting snow, causing the basic RWYCC to be 0.</p> <p>NOTE: Caution should be exercised concerning upgrade, based on the experience of a DC 10 which overran the LDA at Oslo Airport Gardermoen in 1999 in conditions where a high level of humidity and a cold surface probably caused a thin film of ice within the macrotexture. The phenomenon was not detected by the continuous friction measuring device in use. Whether the undercarriage design (boggi) was more susceptible to problems caused by the conditions than single axis undercarriage, has not been determined. However, this question was raised by AIBN.</p> <p>Ref ex b) above: A common situation is where chemicals have been used and the central part of the runway is DRY or WET, but with melt water running off towards the edges, ice may form from the edge and some distance towards the centreline. In this case the information on the inward extent of the ice is important for situational awareness to the flightcrew</p> <p>b) The chosen format is similar to the one used for snowbanks</p>
response	<p>Partially accepted</p> <p>Point (b) is accepted.</p> <p>Point (a) is not accepted since it is covered by the RCAM.</p>
comment	<p>1424 comment by: <i>Norwegian Air (Norwegian Air Norway, Norwegian Air International, Norwegian Air UK and Norwegian Air Shuttle)</i></p>



response	<p>Supported.</p> <p>Noted</p> <p>EASA would like to thank you for your support regarding the proposed changes.</p>
comment	<p>1601 comment by: <i>Atle Vivas</i></p> <p>GM2 ADR.OPS.A.065(a) Reporting of the runway surface condition</p> <p>COMMENT: Suggest add more examples of standardised free text (item 10): For example:</p> <p>a) ICE CONFINED IN THE MACROTEXTURE</p> <p>b) If ICE, SNOW or SNOW ON ICE, is isolated close to the runway edge, we propose to use the following standardised text in Item 10: Format: RWY nn[L] or nn[C] or nn[R] ICE or SNOW or SNOW ON ICE Lnn or Rnn or LRnn FM EDGE</p> <p>RATIONALE: Standardised phrases should be used as far as possible in order to avoid ambiguity. (Ref report from OSLO workshop)</p> <p>Ref ex a) above: If there is a thin film ice confined in the macrotexture, such as the tyre will be in contact with the macrotexture, the basic RWYCC would be 1. However, in many cases an upgrade to 2 or 3 could be justified. The textual information could be important, particularly if there is a situation with light snow precipitation or drifting snow, causing the basic RWYCC to be 0.</p> <p>NOTE: Caution should be exercised concerning upgrade, based on the experience of a DC 10 which overran the LDA at Oslo Airport Gardermoen in 1999 in conditions where a high level of humidity and a cold surface probably caused a thin film of ice within the macrotexture. The phenomenon was not detected by the continuous friction measuring device in use. Whether the undercarriage design (boggi) was more susceptible to problems caused by the conditions than single axis undercarriage, has not been determined. However, this question was raised by AIBN.</p> <p>Ref ex b) above: A common situation is where chemicals have been used and the central part of the runway is DRY or WET, but with melt water running off towards the edges, ice may form from the edge and some distance towards the centreline. In this case the information on the inward extent of the ice is important for situational awareness to the flight crew.</p> <p>b) The chosen format is similar to the one used for snowbanks</p>
response	<p>Partially accepted</p> <p>Point (b) is accepted.</p> <p>Point (a) is not accepted since it is covered by the RCAM.</p>
comment	<p>1604 comment by: <i>Danish Transport, Construction and Housing Authority</i></p> <p>Comment: Words like "Mandatory" should be avoided in GM-material.</p> <p>Rationale: The Competent Authority can't enforce GM-material, so the word "mandatory" should not be used in GM-material. This GM should therefore be AMC-material. The Danish CAA can't support the current classification.</p>

response	Noted
comment	<p>1953 comment by: <i>European Cockpit Association</i></p> <p>GM2 ADR.OPS.A.065(a) Reporting of the runway surface condition</p> <p>The direction for listing the runway thirds is the direction as seen from the lower designation number.</p> <p>ECA's comment: this is an important training issue. It is not intuitive to read these values that way. I.e RWY 32 in use, report reads RWY 14 5/3/3: Pilots need to be made aware that, in their landing direction, they will experience 3/3/5, as expressed by Air Traffic Services.</p>
response	Noted

GM3 ADR.OPS.A.065(a) Reporting of the runway surface condition	p. 98
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comment	<p>294 comment by: <i>Gatwick Airport</i></p> <p>No Comment</p>
response	Noted
comment	<p>649 comment by: <i>CAA Norway</i></p> <p>GM3 ADR.OPS.A.065(a) Reporting of the runway surface condition</p> <p>COMMENT: The example of a complete information string must be reviewed in order to assure that there are no conflict with the procedures for generating the information and the procedures and syntax for disseminating the information.</p> <p>RATIONALE: At least one stakeholder has identified several inconsistencies. It is crucial that examples do not create confusion. This will have consequences for other parts of the document, as well as for other EASA documents, for example Opinion 2/2019 and the 373 regulation with associated annexes. Inconsistencies can also create confusion for providers of training material.</p> <p>COMMENT: There is a need to provide more nuanced information on the condition of Rapid Exit Taxiways (RETs) in the Situational awareness section.</p> <p>RATIONALE: Excursions from RETs are not uncommon, and even if the safety potential is not as great as for runway excursions, the operational consequences may be significant, for example runway closure.</p>
response	Noted



comment	786	comment by: SAS
	Supported	
response	Noted	
	EASA would like to thank you for your support regarding the proposed changes.	

comment	1603	comment by: Atle Vivas
	<p>GM3 ADR.OPS.A.065(a) Reporting of the runway surface condition</p> <p>COMMENT: The example of a complete information string must be reviewed in order to assure that there are no conflict with the procedures for generating the information and the procedures and syntax for disseminating the information.</p> <p>RATIONALE: At least one stakeholder has identified several inconsistencies. It is crucial that examples do not create confusion. This will have consequences for other parts of the document, as well as for other EASA documents, for example Opinion 2/2019 and the 373 regulation with associated annexes. Inconsistencies can also create confusion for providers of training material.</p> <p>COMMENT: There is a need to provide more nuanced information on the condition of Rapid Exit Taxiways (RETs) in the Situational awareness section.</p> <p>RATIONALE: Excursions from RETs are not uncommon, and even if the safety potential is not as great as for runway excursions, the operational consequences may be significant, for example runway closure.</p>	
response	Noted	

GM1 ADR.OPS.A.065(a)(18);(a)(19) Reporting of the runway surface condition

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comment	295	comment by: Gatwick Airport
	No Comment	
response	Noted	

comment	684	comment by: Amsterdam Airport Schiphol
	<p>Ref. GM1 ADR.OPS.A.065(a)(18);(a)(19):</p> <p>In ADR.OPS.A.065 the terms 'CHEMICALLY TREATED' and 'LOOSE SAND' are included as items (18) and (19) in the list of allowable descriptions for the runway condition as part of the aeroplane performance calculation section. This contradicts the proposed text of this GM.</p>	
response	Noted	



These items are runway contaminants, which have to be reported in the situational awareness section. However, they are not related to aeroplane performance; therefore, they shall not be included in the aeroplane performance section.

comment	787	comment by: SAS
	Supported	
response	Noted	
	EASA would like to thank you for your support regarding the proposed changes.	

comment	1427	comment by: Norwegian Air (Norwegian Air Norway, Norwegian Air International, Norwegian Air UK and Norwegian Air Shuttle)
	Supported.	
response	Noted	
	EASA would like to thank you for your support regarding the proposed changes.	

comment	1723	comment by: Copenhagen Airports A/S
	Subject: Reporting of 'Chemically treated' Proposal: Reporting of 'Chemically treated' should be maintained under GM. Additional GM regarding the duration of reported 'chemically treated' after actual treatment should be clarified. Justification: What is the justification for reporting chemical treatment if it doesn't have any impact on performance. If its environmental or indirect information for maintenance purposes of specific carbon brakes it can be handled through the local snow plan or/and AIP.	
response	Noted	
	These items are runway contaminants, which have to be reported in the situational awareness section. However, they are not related to aeroplane performance; therefore, they shall not be included in the aeroplane performance section.	

AMC1 ADR.OPS.A.065(b);(c) Reporting of the runway surface condition	p. 99
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comment	71	comment by: Aerodrome safety regulation departement
	In table 1, PANS-ADR had defined an upper limit of height in standing water or slush which value is 15mm. Is there a reason for the deletion of this upper value ?	
response	Noted	



ICAO Table implies that any depth more than 15 mm should be reported as 15 mm, while the intention is to provide more accurate information in regard to the contaminant depth. The purpose of the Table is to clarify when a change is considered significant.

comment 296 comment by: *Gatwick Airport*

No Comment

response Noted

comment 410 comment by: *Federal Ministry of Transport Germany, Aerodrome Department*

In Tabelle 2 wurde im NPA ein abweichender Text zum ICAO Doc 9981 eingefügt. Spalte 3 „Significant change“ beinhaltet im NPA für „standing water“ und „slush“ 3 mm und nicht wie im ICAO Doc „3 mm up to and including 15 mm“. Dadurch stimmt der Inhalt von Note 1 nicht mehr, welcher dann ohne Änderung aus dem ICAO Doc übernommen wurde. Hier sollte eine Angleichung an die international verwendeten Standards erfolgen.

response Noted

ICAO Table implies that any depth more than 15 mm should be reported as 15 mm, while the intention is to provide more accurate information in regard to the contaminant depth. The purpose of the Table is to clarify when a change is considered significant.

comment 650 comment by: *CAA Norway*

AMC1 ADR.OPS.A.065(b);(c) Reporting of the runway surface condition

COMMENT: In (e) For the term ‘pilot report’, Suggest to make the appropriate substitution

RATIONALE: See general comment, editorial.

response Accepted

comment 788 comment by: *SAS*

Supported

response Noted

EASA would like to thank you for your support regarding the proposed changes.

comment 906 comment by: *Aleksandar Ilkovski*



	<p>GM1 ADR.OPS.A.057(d)(4), & AMC1 ADR.OPS.A.065(b);(c) table:</p> <p>GM1 ADR.OPS.A.057(d)(4) and ADR.OPS.A.065(b);(c) table 2 does not harmonise. GM1 ADR.OPS.A.057(d)(4) states that reporting is done “up to and including 15 mm” for STANDING WATER and SLUSH. This writing is not to be found in the AMC1 ADR.OPS.A.065(b);(c) table 2.</p>
response	<p>Noted</p> <p>ICAO Table implies that any depth more than 15 mm should be reported as 15 mm, while the intention is to provide more accurate information in regard to the contaminant depth. The purpose of the Table is to clarify when a change is considered significant.</p>
comment	<p>1077 comment by: <i>ACI Europe</i></p> <p>Table 1 - Percentage of coverage for contaminants:</p> <p>Comment: It makes a big difference whether one tenth or quarter of a runway third is contaminated. Both assessed coverages are reported as 25 per cent. Consider smaller subdivision of values.</p>
response	<p>Not accepted</p> <p>EASA decided to follow the ICAO method, even if it is more conservative. Furthermore, it is easier for the runway inspectors to determine the coverage of the runway third if reporting is required in steps of 25 %.</p>
comment	<p>1428 comment by: <i>Norwegian Air (Norwegian Air Norway, Norwegian Air International, Norwegian Air UK and Norwegian Air Shuttle)</i></p> <p>Supported.</p>
response	<p>Noted</p> <p>EASA would like to thank you for your support regarding the proposed changes.</p>
comment	<p>1608 comment by: <i>Atle Vivas</i></p> <p>AMC1 ADR.OPS.A.065(b);(c) Reporting of the runway surface condition</p> <p>COMMENT: In (e) For the term ‘pilot report’, Suggest to make the appropriate substitution</p> <p>RATIONALE: See general comment, editorial.</p>
response	<p>Accepted</p>
comment	<p>1870 comment by: <i>Danish Transport, Construction and Housing Authority</i></p> <p>Supported</p>

response	Noted EASA would like to thank you for your support regarding the proposed changes.
comment	1901 comment by: IATA IATA / Fedex concern: on e) US NOTAM system uses 10 per cent increments in stead of 15 and 25 per cent
response	Not accepted EASA decided to follow the ICAO method, even if it is more conservative. Furthermore, it is easier for the runway inspectors to determine the coverage of the runway third if reporting is required in steps of 25 %.
comment	1902 comment by: IATA IATA / Fedex concerns: On Note 3 text This differs from the US system as the Airport Operator is required to continually monitor and assess the runway. If an aircraft reports any braking condition less than GOOD breaking action, the Airport must assess the runway at least hourly and at much shorter intervals during rapidly changing weather events.
response	Noted Please refer to AMC1 ADR.OPS.B.037(b).
comment	1954 comment by: European Cockpit Association AMC1 ADR.OPS.A.065(b);(c) Reporting of the runway surface condition Note 2 — For SLUSH, WET SNOW and DRY SNOW, depths up to and including 3 mm should be reported as 03 (3 mm). ECA's comment: Training issue: Until now, runways covered with these contaminants up to and including 3 mm were considered "wet" and not "contaminated" by those operators not yet using RCAM.
response	Noted

GM1 ADR.OPS.A.065(b);(c) Reporting of the runway surface condition

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comment	297 comment by: Gatwick Airport No comment
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response	Noted
comment	651 comment by: CAA Norway GM1 ADR.OPS.A.065(b);(c) Reporting of the runway surface condition COMMENT: Supported.
response	Noted EASA would like to thank you for your support regarding the proposed changes.
comment	789 comment by: SAS Supported
response	Noted EASA would like to thank you for your support regarding the proposed changes.
comment	1430 comment by: Norwegian Air (Norwegian Air Norway, Norwegian Air International, Norwegian Air UK and Norwegian Air Shuttle) Supported.
response	Noted EASA would like to thank you for your support regarding the proposed changes.
comment	1609 comment by: Atle Vivas Supported
response	Noted EASA would like to thank you for your support regarding the proposed changes.
comment	1869 comment by: Danish Transport, Construction and Housing Authority Supported
response	Noted EASA would like to thank you for your support regarding the proposed changes.

AMC1 ADR.OPS.B.003 Handover of activities

p. 100-101

comment	298	comment by: Gatwick Airport
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response	No Comment
response	Noted
comment	411 comment by: <i>Federal Ministry of Transport Germany, Aerodrome Department</i>
	Siehe Anmerkungen zu ADR.OPS.B.003
response	Noted
comment	652 comment by: <i>CAA Norway</i>
	AMC1 ADR.OPS.B.003 Handover of activities COMMENT: Supported.
response	Noted
	EASA would like to thank you for your support regarding the proposed changes.
comment	790 comment by: <i>SAS</i>
	Supported
response	Noted
	EASA would like to thank you for your support regarding the proposed changes.
comment	848 comment by: <i>Zurich Airport</i>
	EASA should specify the operation of «handover of activities» in order to prevent misinterpretation at the expense of increasing workload and administration.
response	Partially accepted
	The relevant proposed rule and AMC have been amended to provide more clarity with regard to the personnel covered by this provision.
comment	1078 comment by: <i>ACI Europe</i>
	General Comment: ACI Europe recommends that this AMC is relocated to GM. Rationale: The detailed requirements places additional administrative burden on all aerodrome operators and are in part not suitable to small aerodromes.
	Point (b) ACI Europe advocates to reconsider the wording in section (b) in order to reflect the different operational restrictions that are in place at (smaller) airports. Rationale: Specific functions / work places are simply not necessarily manned round the clock. Additionally, some airports do not operate 24/7. Both examples illustrate situations where a verbal handover is not feasible.



	<p>Point (c): ACI Europe proposes to amend section (c) (3): (3) conditions of stop bars, if applicable, that may be inoperable requiring specific contingency measures and arrangements; and Rationale: EAPRI and GM1 SERA.3210(d) “only” require contingency arrangements that apply in case of inoperable stop bars. A closure of a taxiway – as implied by the current wording – is not required. Furthermore, GM1 ADR.OPS.B.065, section (c) would allow for specific contingency arrangements without a full closure of a taxiway.</p>
<p>response</p>	<p>Partially accepted</p> <p>The proposed AMC specifies adequately the preconditions for an effective handover of activities, without going into detail as to its implementation. It is up to the individual aerodrome operator to adjust the implementation in the most suitable manner. Therefore, the level of AMC is considered to be appropriate.</p> <p>In addition, the fact that aerodromes do not operate on a 24-hour basis does not mean that the personnel do not need to be briefed, or that there are no incoming-outgoing personnel during limited working hours. The relevant text has been amended to accommodate such cases.</p> <p>With regard to the condition of stop-bars, the current wording does not imply the closure of a taxiway; the current text aims at specifying the areas where specific attention should be given during the provision of the required information.</p>
<p>comment</p>	<p>1263 comment by: <i>Swedish Transport Agency</i></p> <p>Supported.</p>
<p>response</p>	<p>Noted</p> <p>EASA would like to thank you for your support regarding the proposed changes.</p>
<p>comment</p>	<p>1464 comment by: <i>F. Ehmoser</i></p> <p>(b) The briefing should be face-to-face, or in a manner that allows effective two-way communication between the outgoing and incoming personnel, during which all task-relevant information necessary for the incoming personnel is provided to them, both verbally and or in writing.</p>
<p>response</p>	<p>Partially accepted</p> <p>The text has been amended to accommodate more cases.</p>
<p>comment</p>	<p>1465 comment by: <i>F. Ehmoser</i></p> <p>AMC1 shall be changed to GM. It is in the aerodrome operator responsibility to define the handover of activities in accordance with local procedures.</p>



response	<p>Not accepted</p> <p>Indeed, it is the responsibility of the aerodrome operator to establish the relevant procedures for the successful provision of information during the handover of activities. The proposed AMC specifies the preconditions for an effective handover of activities, without going into detail as to its implementation. It is up to the individual aerodrome operator to adjust the implementation in the most suitable manner. Therefore, the level of AMC is considered to be appropriate.</p>
comment	<p>1467 comment by: <i>F. Ehmoser</i></p> <p>(1) cover the initial shift, the change of a shift within the same function (e.g. between RFFS personnel), the case where a task is handed over to another person within the same shift, and the cases where an activity is handed over between different functions (e.g. from maintenance to operations);</p> <p>(2) address the case where a planned activity (e.g. light maintenance) is not completed at the time of a planned shift change; or any other non-standard activities are in place</p> <p>(c)(3) conditions of stop bars, if applicable, that may be inoperable making a taxiway unusable for runway entry or crossing; and any operational restrictions</p>
response	<p>Partially accepted</p> <p>The text has been modified to address the case of non-standard activities in the suggested line. The list of information to be provided to drivers is non-exhaustive, while specific mention to stop-bars is considered to be important. The remaining proposed amendments of the AMC are found to remove material which is expected to facilitate the implementation with the relevant provision of the proposed rule.</p>
comment	<p>1470 comment by: <i>Andreas Herndler, CAA Austria</i></p> <p>AMC1 shall be changed to GM. It is in the aerodrome operator responsibility to define the handover of activities in accordance with local procedures.</p> <p>Furthermore following adjustments are suggested:</p> <p>(1) cover the initial shift, the change of a shift within the same function (e.g. between RFFS personnel), the case where a task is handed over to another person within the same shift, and the cases where an activity is handed over between different functions (e.g. from maintenance to operations);</p> <p>(2) address the case where a planned activity (e.g. light maintenance) is not completed at the time of a planned shift change or any other non-standard activities are in place;</p> <p>(b) The briefing should be face-to-face, or in a manner that allows effective two-way communication between the outgoing and incoming personnel, during which all task-relevant information necessary for the incoming personnel is provided to them, both verbally and or in writing.</p>

	<p>(c)(3) conditions of stop bars, if applicable, that may be inoperable making a taxiway unusable for runway entry or crossing; and any operational restrictions</p>
response	<p>Partially accepted</p> <p>Indeed, it is the responsibility of the aerodrome operator to establish the relevant procedures for the successful provision of information during the handover of activities. The proposed AMC specifies the preconditions for an effective handover of activities, without going into detail as to its implementation. It is up to the individual aerodrome operator to adjust the implementation in the most suitable manner. Therefore, the level of AMC is considered to be appropriate.</p> <p>The text has been modified to address the case of non-standard activities in the suggested line. The list of information to be provided to drivers is non-exhaustive, while specific mention to stop-bars is considered to be important. The remaining proposed amendments of the AMC are found to remove material which is expected to facilitate the implementation with the relevant provision of the proposed rule.</p>
comment	<p>1549 comment by: Graz Airport</p>
	<p>(1) cover the initial shift, the change of a shift within the same function (e.g. between RFFS personnel), the case where a task is handed over to another person within the same shift, and the cases where an activity is handed over between different functions (e.g. from maintenance to operations);</p> <p>(2) address the case where a planned activity (e.g. light maintenance) is not completed at the time of a planned shift change; or any other non-standard activities are in place</p> <p>(b) The briefing should be face-to-face, or in a manner that allows effective two-way communication between the outgoing and incoming personnel, during which all task-relevant information necessary for the incoming personnel is provided to them, both verbally and or in writing.</p> <p>(c)(3) conditions of stop bars, if applicable, that may be inoperable making a taxiway unusable for runway entry or crossing; and any operational restrictions</p> <p>AMC1 shall be changed to GM. It is in the aerodrome operator responsibility to define the handover of activities in accordance with local procedures.</p>
response	<p>Partially accepted</p> <p>Indeed, it is the responsibility of the aerodrome operator to establish the relevant procedures for the successful provision of information during the handover of activities. The proposed AMC specifies the preconditions for an effective handover of activities, without going into detail as to its implementation. It is up to the</p>

individual aerodrome operator to adjust the implementation in the most suitable manner. Therefore, the level of AMC is considered to be appropriate.

The text has been modified to address the case of non-standard activities in the suggested line. The list of information to be provided to drivers is non-exhaustive, while specific mention to stop-bars is considered to be important. The remaining proposed amendments of the AMC are found to remove material which is expected to facilitate the implementation with the relevant provision of the proposed rule.

comment	1611	comment by: <i>Atle Vivas</i>
	Supported	
response	Noted	
	EASA would like to thank you for your support regarding the proposed changes.	

comment	1772	comment by: <i>UAF (Union des Aéroports Français)</i>
	UAF support ACI E comment#1078	
response	Noted	
	Please refer to the reply of comment No 1078.	

AMC2 ADR.OPS.B.015 Monitoring and inspection of movement area and related facilities

p. 101-102

comment	74	comment by: <i>Aerodrome safety regulation departement</i>
	<p>Point (c) : the new requirements addressing issues of suspension or interruption of the inspections should be part of the coordinated procedures with ATS. Moreover, these issues could be also part of the ATM rules as a mirror to consolidate the regulatory mechanism.</p> <p>Point (d): Depending on aerodromes organisation, agents in charge of inspections are not always responsible for the issuance of the establishment of the RCR nor the origination of the related SNOWTAM. The whole process might be provided by a chain of people including people in charge of inspections. Yet, the proposed wording of this provision requires that every personnel conducting inspections follow a full program of training which might be disproportionnate for certain aerodromes. On the other hand, some personnel might and doesn't take into account other personnel that might be implied in the process.</p>	



On the other hand, it would be necessary to add in the training programme dedicated to personnel in charge of runway surface conditions assessment, a supplementary point focusing on awareness of the consequences of assessment of runway surface conditions on braking actions and declared distances.

We propose thus propose the following formulation :

"Personnel engaged in movement area inspections and runway surface condition assessment shall be adequately trained for the tasks assigned to them. This training shall cover at least the following subjects:

...

(p) awareness of the impact of runway surface condition assessment on aircraft performance "

response

Partially accepted

With regard to point (c), Opinion No 03/2018 already proposes in point ATS.OR.110 coordination arrangements between the ATS provider and the aerodrome operator, while AMC5 ATS.OR.110 and GM1 ATS.OR.110 address the issue of runway inspections and the development of the aerodrome manual, which is meant to include such procedures.

In regard to point (d), the comment is accepted.

comment

340

comment by: *Avinor AS*

COMMENT: add new item (e) **(6) Familiarization with aircraft performance on contaminated runways.**

RATIONALE: Experience has shown that aerodrome staff familiar with aircraft performance on contaminated runways has a better understanding of the impacts of various contaminants on aircraft stopping performance

response

Accepted

comment

358

comment by: *Gatwick Airport*

There should be consideration to the procedures for conducting runway inspections in the same direction as the landing traffic. There is a case to be made for conducting runway inspections in the same direction as aircraft movements. The wording (c) is too prescriptive and we would welcome the opportunity share our rationale for the procedure in place at our airport.

response

Noted

ICAO Airport Services Manual (Part 8) specifies in paragraph 4.4.4. that 'All runway lighting inspections are carried out in the direction opposite to that being used for landing or taking off, primarily for safety reasons.'

Similarly, please note that the proposed text for the amendment of PANS-Aerodromes (State Letter 25/2018) specified in paragraph 1.4 contained in the



	<p>Appendix to Chapter 3 that ‘Runway inspections should be carried out in the direction opposite to that being used for landing or taking off, primarily to ensure the visibility of, and by, the operating aircraft’.</p> <p>At European level, EAPPRI contains a similar recommendation.</p>	
comment	359	comment by: <i>Gatwick Airport</i>
	(e) (5) awareness of uncertainties related to point (4) above. Needs clarifying as to meaning	
response	<p>Noted</p> <p>Currently, friction measuring devices are not accurate for many reasons, including proper calibration and maintenance.</p>	
comment	653	comment by: <i>CAA Norway</i>
	<p>AMC2 ADR.OPS.B.015 Monitoring and inspection of movement area and related facilities</p> <p>COMMENT: Item (d)(9), Consider using ‘air traffic services’ instead of ‘air traffic control’</p> <p>RATIONALE: To achieve consistency throughout the document.</p>	
response	<p>Accepted</p> <p>The text has been amended as suggested.</p>	
comment	791	comment by: <i>SAS</i>
	Supported	
response	<p>Noted</p> <p>EASA would like to thank you for your support regarding the proposed changes.</p>	
comment	803	comment by: <i>ENAIRE</i>
	<ul style="list-style-type: none"> • AMC2 ADR.OPS.B.015. Reference to ICAO phraseology is included in section (d) 6. Basics of this area in English language is also advisable for drivers operating in RWYs or close to them. 	
response	<p>Accepted</p> <p>The issue of driver training is addressed in ADR.OPS.B.025, which deals with the authorisation of vehicle drivers. The relevant text has been amended to address the language issue.</p>	

comment	<p>917 comment by: <i>Aleksandar Ilkovski</i></p> <p>AMC2 ADR.OPS.B.015(c): Will affect traffic flow and operations, could be more complex for ATC (depending on AD layout) Measured friction/breaking action more accurate when done in same direction. Swedavia suggest that the possibility to perform runway inspection in same direction as traffic remains provided a risk assessment is performed by the aerodrome operator.</p>
response	<p>Noted</p> <p>ICAO Airport Services Manual (Part 8) specifies in paragraph 4.4.4. that ‘All runway lighting inspections are carried out in the direction opposite to that being used for landing or taking off, primarily for safety reasons.’.</p> <p>Similarly, please note that the proposed text for the amendment of PANS-Aerodromes (State Letter 25/2018) specified in paragraph 1.4 contained in the Appendix to Chapter 3 that ‘Runway inspections should be carried out in the direction opposite to that being used for landing or taking off, primarily to ensure the visibility of, and by, the operating aircraft’.</p> <p>At European level, EAPPRI contains a similar recommendation.</p>
comment	<p>1035 comment by: <i>Fraport AG</i></p> <p>AMC2 ADR.OPS.B.015(e)(4) says that personnel conduction runway surface condition assessments should receive training in the "use, calibration and maintenance of measurement devices if applicable". However, the personnel conduction the assessment does not always calibrate the devices even if they are applicable.</p> <p>Fraport suggests for this point: "use <u>as well as</u> calibration and maintenance of measurement devices if applicable <u>and if performed</u>".</p>
response	<p>Not accepted</p> <p>The use of ‘if applicable’ is considered adequate.</p>
comment	<p>1079 comment by: <i>ACI Europe</i></p> <p>Section (b) should be moved to AMC1 ADR.OPS.B.026 (a)(1)(3) or to a new AMC for ADR.OPS.B.027</p> <p>Rationale: The scope of ADR.OPS.B.015 and related AMC/GM is limited to the requirements and procedures for movement area inspections. Hence, those requirements aim at relatively small target group of (aerodrome) staff that performs those inspections. Contrary to this, "...all vehicles on the manoeuvring area..." comprises vehicles that may perform other activities then movement area inspections.</p>

	<p>Point (c) To mandate the runway inspections to be conducted in one direction only may increase certain risks. The direction runway inspections should be determined by the aerodrome operator following a risk assessment. Rationale: Will affect traffic flow and operations, could be more complex for ATC (depending on AD layout) Measured friction/breaking action more accurate when done in same direction.</p> <p>Point (d) It is unclear why personnel conducting movement area inspections should (by definition) receive training in procedures for NOTAM initiation. Within larger airport organisations the personnel involved in inspections are different persons than those involved in NOTAM initiation. Initiating a NOTAM can be a result of an inspection carried out, but is based on the results of an inspection. It is therefore unnecessary for personnel conducting inspections to have knowledge of NOTAM initiation.</p>
response	<p>Noted</p> <p>ICAO Airport Services Manual (Part 8) specifies in paragraph 4.4.4. that 'All runway lighting inspections are carried out in the direction opposite to that being used for landing or taking off, primarily for safety reasons.'</p> <p>Similarly, please note that the proposed text for the amendment of PANS-Aerodromes (State Letter 25/2018) specified in paragraph 1.4 contained in the Appendix to Chapter 3 that 'Runway inspections should be carried out in the direction opposite to that being used for landing or taking off, primarily to ensure the visibility of, and by, the operating aircraft'.</p> <p>At European level, EAPPRI contains a similar recommendation.</p>
comment	<p>1264 comment by: <i>Swedish Transport Agency</i></p> <p>COMMENT: Item (d)(9), Consider using 'air traffic services' instead of 'air traffic control'</p> <p>RATIONALE: To achieve consistency throughout the document.</p>
response	<p>Accepted</p> <p>The text has been modified accordingly.</p>
comment	<p>1363 comment by: <i>ADV - German Airports Association</i></p> <p>(e) (4)</p> <p>Point (4) says that personnel conducting runway surface condition assessments should receive training in the use, calibration and maintenance of measurement devices. However, the personnel conducting the assessment does not always calibrate the devices. Suggestion is to add "if performed". This also applies for the maintenance, as the assessment personnel probably does not maintain the device. The term "where applicable" may not be sufficient in arguing with CA.</p>
response	<p>Not accepted</p>

The use of 'if applicable' is considered adequate.

comment

1468

comment by: *F. Ehmoser*

(c) "unless it is operationally impossible" shall be changed to "unless it is necessary for operational reasons"

Driving in the opposite direction is never "operationally impossible", but could lead to capacity troubles.

response

Noted

ICAO Airport Services Manual (Part 8) specifies in paragraph 4.4.4. that "All runway lighting inspections are carried out in the direction opposite to that being used for landing or taking off, primarily for safety reasons."

Similarly, please note that the proposed text for the amendment of PANS-Aerodromes, (State Letter 25/2018) specified in paragraph 1.4 contained in the Appendix to Chapter 3 that "Runway inspections should be carried out in the direction opposite to that being used for landing or taking off, primarily to ensure the visibility of, and by, the operating aircraft".

At a European level, EAPPRI contains a similar recommendation.

comment

1474

comment by: *Andreas Herndler, CAA Austria*

Driving in the opposite direction is never "operationally impossible", but could lead to capacity troubles.

Therefore following adjustments are suggested:

(c) Runway inspections should be conducted in the opposite direction to that being used for landing or taking off and without interruption of the inspection, unless it is ~~operationally impossible~~ **necessary for operational reasons**.

response

Noted

ICAO Airport Services Manual (Part 8) specifies in paragraph 4.4.4. that "All runway lighting inspections are carried out in the direction opposite to that being used for landing or taking off, primarily for safety reasons."

Similarly, please note that the proposed text for the amendment of PANS-Aerodromes, (State Letter 25/2018) specified in paragraph 1.4 contained in the Appendix to Chapter 3 that "Runway inspections should be carried out in the direction opposite to that being used for landing or taking off, primarily to ensure the visibility of, and by, the operating aircraft".

At a European level, EAPPRI contains a similar recommendation.



comment	<p>1551 comment by: <i>Graz Airport</i></p> <p>(c) "unless it is operationally impossible" shall be changed to "unless it is necessary for operational reasons"</p> <p>Driving in the opposite direction is never "operationally impossible", but could lead to capacity troubles.</p>
response	<p>Noted</p> <p>ICAO Airport Services Manual (Part 8) specifies in paragraph 4.4.4. that "All runway lighting inspections are carried out in the direction opposite to that being used for landing or taking off, primarily for safety reasons."</p> <p>Similarly, please note that the proposed text for the amendment of PANS-Aerodromes, (State Letter 25/2018) specified in paragraph 1.4 contained in the Appendix to Chapter 3 that "Runway inspections should be carried out in the direction opposite to that being used for landing or taking off, primarily to ensure the visibility of, and by, the operating aircraft".</p> <p>At a European level, EAPPRI contains a similar recommendation.</p>
comment	<p>1613 comment by: <i>Atle Vivas</i></p> <p>AMC2 ADR.OPS.B.015 Monitoring and inspection of movement area and related facilities</p> <p>COMMENT: Item (d)(9), Consider using 'air traffic services' instead of 'air traffic control'</p> <p>RATIONALE: To achieve consistency throughout the document.</p>
response	<p>Accepted</p> <p>The text has been modified accordingly.</p>
comment	<p>1775 comment by: <i>UAF (Union des Aéroports Français)</i></p> <p>UAF support ACI E comment#1079</p>
response	<p>Noted</p> <p>Please refer to the reply to comment No 1079.</p>
comment	<p>1822 comment by: <i>SinaJobstHAM</i></p> <p>Die Pistenkontrolle und Friction Messung entgegen der Betriebsrichtung würde eine Änderung der Betriebsrichtung zur Folge haben. Wir hinterfragen die Sinnhaftigkeit dieser Anforderung und bitten um Streichung.</p> <p>Eine durchgängige Pistenkontrolle in einem Zug, ohne Unterbrechung durchzuführen ist in der betrieblichen Praxis schwer umzusetzen. Einerseits verfügt der Flughafen Hamburg über ein gekreuztes Pistensystem, andererseits verringert man dadurch</p>

	<p>flugbetriebliche Flexibilität und Kapazität. Der Vorteil bzw. Zugewinn an Sicherheit durch die veränderte Anforderung erachten wir als fragwürdig.</p>
response	<p>Noted</p> <p>ICAO Airport Services Manual (Part 8) specifies in paragraph 4.4.4. that ‘All runway lighting inspections are carried out in the direction opposite to that being used for landing or taking off, primarily for safety reasons.’</p> <p>Similarly, please note that the proposed text for the amendment of PANS-Aerodromes (State Letter 25/2018) specified in paragraph 1.4 contained in the Appendix to Chapter 3 that ‘Runway inspections should be carried out in the direction opposite to that being used for landing or taking off, primarily to ensure the visibility of, and by, the operating aircraft’.</p> <p>At European level, EAPPRI contains a similar recommendation.</p>
comment	<p>1871 comment by: <i>Danish Transport, Construction and Housing Authority</i></p> <p>Support CAA Norway</p>
response	<p>Noted</p> <p>EASA would like to thank you for your support regarding the proposed changes.</p>

GM2 ADR.OPS.B.015 Monitoring and inspection of movement area and related facilities

p. 102-103

comment	<p>360 comment by: <i>Gatwick Airport</i></p> <p>no comment</p>
response	<p>Noted</p>
comment	<p>792 comment by: <i>SAS</i></p> <p>Supported</p>
response	<p>Noted</p> <p>EASA would like to thank you for your support regarding the proposed changes.</p>

AMC1 ADR.OPS.B.016(a)(1) Foreign object debris control programme

p. 103-104

comment	<p>361 comment by: <i>Gatwick Airport</i></p> <p>No Comment</p>
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response	Noted
comment	<p>412 comment by: <i>Federal Ministry of Transport Germany, Aerodrome Department</i></p> <p>Die Inhalte und Forderungen dieses AMC sind sowohl für die zuständigen Aufsichtsbehörden als auch für Flugplatzbetreiber sehr komplex. Hier sollte eine Priorisierung angedacht werden (siehe Anmerkung zu ADR.OPS.B.016). Zudem sollten die Punkte hinsichtlich der Schulung ins GM übernommen werden, da diese auch bereits Teil bestehender Schulungen (Safety Management System, Ramp Safety etc.) sein können.</p>
response	<p>Noted</p> <p>The content of the AMC enumerates the areas that the personnel training needs to cover in order to increase personnel awareness, and thus it is not considered detailed, or having the potential to cause difficulty in implementation. It is also expected that all personnel should be trained in this area; however, the details of its implementation are left to the individual aerodrome operators.</p>
comment	<p>654 comment by: <i>CAA Norway</i></p> <p>AMCs and GMs to ADR.OPS.B.016 FOD PROGRAMME (ALL) COMMENT: Supported.</p>
response	<p>Noted</p> <p>EASA would like to thank you for your support regarding the proposed changes.</p>
comment	<p>793 comment by: <i>SAS</i></p> <p>Supported</p>
response	<p>Noted</p> <p>EASA would like to thank you for your support regarding the proposed changes.</p>
comment	<p>925 comment by: <i>ADV - German Airports Association</i></p> <p>ADV specifically supports ACI Europe's objection to all Soft Law to ADR.OPS.B.016.</p> <p>They add additional burden to aerodrome operators for no clear benefit. Many provisions are not considering the operational setup and division of responsibilities at aerodromes. Many are clearly not proportionate to the size and complexity of the aerodromes. The provisions should be rewritten in collaboration with stakeholders and moved to GM. Airports may still submit detailed comments of particular importance to them.</p>

response	Noted Please refer to the content of ICAO State Letter 25 of 2018. Proper FOD management is an essential issue with clear safety benefits.
comment	1080 comment by: <i>ACI Europe</i> ACI Europe objects to the AMCs on FOD. They add additional burden to aerodrome operators for no clear benefit. Even the IR has no basis in ICAO standards. For all AMC's the initial text above the sub-points may remain AMC, all the subpoints should go to GM.
response	Noted Please refer to the content of ICAO State Letter 25 of 2018. Proper FOD management is an essential issue with clear safety benefits.
comment	1265 comment by: <i>Swedish Transport Agency</i> Supported.
response	Noted EASA would like to thank you for your support regarding the proposed changes.
comment	1578 comment by: <i>Brussels Airport Company</i> First sentence under element 'General' may remain AMC, proposal to relocate all the rest to GM as this gives too much detail and is not always possible/advisable for all aerodromes.
response	Noted Please refer to the content of ICAO State Letter 25 of 2018. Proper FOD management is an essential issue with clear safety benefits.
comment	1617 comment by: <i>Atle Vivas</i> Supported ALL
response	Noted EASA would like to thank you for your support regarding the proposed changes.
comment	1778 comment by: <i>UAF (Union des Aéroports Français)</i> UAF support ACI E comment#1080
response	Noted



Please refer to the reply to comment No 1080.

comment	1799	comment by: <i>SinaJobstHAM</i>
	Was soll das Senior Management tun, um sich aktiv am FOD Programm zu beteiligen? Wir bitte um Konkretisierung.	
response	Noted	
	It is the senior management of the organisation that needs to actively demonstrate its commitment to safety as per ADR.OR.D.005.	

comment	1872	comment by: <i>Danish Transport, Construction and Housing Authority</i>
	Support all AMC and GM to AMC1.ADR.OPS.B.016	
response	Noted	
	EASA would like to thank you for your support regarding the proposed changes.	

AMC1 ADR.OPS.B.016(b)(2) Foreign object debris control programme

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comment	362	comment by: <i>Gatwick Airport</i>
	No Comment	
response	Noted	

comment	794	comment by: <i>SAS</i>
	Supported	
response	Noted	
	EASA would like to thank you for your support regarding the proposed changes.	

comment	925 ❖	comment by: <i>ADV - German Airports Association</i>
	ADV specifically supports ACI Europe's objection to all Soft Law to ADR.OPS.B.016.	
	They add additional burden to aerodrome operators for no clear benefit. Many provisions are not considering the operational setup and division of responsibilities at aerodromes. Many are clearly not proportionate to the size and complexity of the aerodromes. The provisions should be rewritten in collaboration with stakeholders and moved to GM. Airports may still submit detailed comments of particular importance to them.	
response	Noted	



Please refer to the content of ICAO State Letter 25 of 2018. Proper FOD management is an essential issue with clear safety benefits.

comment 1266 comment by: *Swedish Transport Agency*

Supported.

response Noted

EASA would like to thank you for your support regarding the proposed changes.

GM1 ADR.OPS.B.016(b)(2) Foreign object debris control programme

p. 104-106

comment 363 comment by: *Gatwick Airport*

No Comment

response Noted

comment 579 comment by: *Zurich Airport*

From an aerodromes safety point of view it should be clarified, that only cabin waste/ litter which is unintentionally on the apron (e.g. due to wind) can be defined as FOD. The other ones are waste, not FOD. We have to make sure, that the FOD bins are used (and can be used) for the disposal of FOD. They should not be used for the disposal of "usual" waste (e.g. cabin waste or waste from personnel on the apron). For that reason the aerodromes should implement a waste disposal concept.

The handling of cabin waste should be so organised that a damage of the rubbish bag is not possible to prevent birds on the bag and therefore on the apron. Please consider, that waste is attractive for birds - it should be ensured, that waste is never unattended on the apron, especially near or on the aircraft stand.

response Partially accepted

There is definition of what FOD is, which applies irrespective of the source. The relevant material has been amended.

comment 657 comment by: *CAA Norway*

AMCs and GMs to ADR.OPS.B.016 FOD PROGRAMME (ALL)

COMMENT: Supported.

response Noted

EASA would like to thank you for your support regarding the proposed changes.

comment 925 ❖ comment by: *ADV - German Airports Association*



	<p>ADV specifically supports ACI Europe's objection to all Soft Law to ADR.OPS.B.016.</p> <p>They add additional burden to aerodrome operators for no clear benefit. Many provisions are not considering the operational setup and division of responsibilities at aerodromes. Many are clearly not proportionate to the size and complexity of the aerodromes. The provisions should be rewritten in collaboration with stakeholders and moved to GM. Airports may still submit detailed comments of particular importance to them.</p>
response	Noted
comment	<p>1083 comment by: SAS</p> <p>Supported</p>
response	<p>Noted</p> <p>EASA would like to thank you for your support regarding the proposed changes.</p>
comment	<p>1267 comment by: Swedish Transport Agency</p> <p>Supported.</p>
response	<p>Noted</p> <p>EASA would like to thank you for your support regarding the proposed changes.</p>
comment	<p>1800 comment by: SinaJobstHAM</p> <p>Die FOD- Kontrolle der Parkposition vor <u>und nach</u> Abstellen des LZF entspricht nicht der gängigen Praxis. Derzeit wird vor dem Einrollen auf die Parkposition ein FOD-Check durchgeführt. Zusätzlich werden die Flugbetriebsflächen, inkl. Parkpositionen, kontrolliert und die Mitarbeiter sind auf das Thema sensibilisiert und geschult. Aus unserer Sicht ist das absolut ausreichend und eine verpflichtende FOD- Freimeldung nach Verlassen der Parkposition nicht notwendig.</p> <p>Zu Unterpunkt (c): Wir bitten die Formulierung in "specific FOD prevention measures" zu ändern. Wichtig ist, dass spezielle Maßnahmen für ein einzelnes Bauprojekt implementiert werden, wenn dies erforderlich ist. Ein separates Verfahren aufzusetzen erzeugt lediglich mehr administrativen Aufwand, aber keine mehr an Sicherheit.</p> <p>"Contractors should fully understand" ist nicht durch den Flughafenbetreiber sicherzustellen/nachzuweisen. Der Flughafenbetreiber kann sich lediglich vertraglich durch den Dienstleister zusichern lassen, dass sich dieser an das FOD- Prorammm hält und dessen Mitarbeiter unterweisen.</p> <p>Zu Unterpunkt (d): Wir würden eine generelle Formulierung empfehlen. Die Nachweisführung für Flughäfen ist hier sehr schwierig.</p>



	<p>Zu Unterpunkt (e)(1): Die Kontrolle der Pistenoberflächen wird bereits beim Thema "Reporting of the runway surface condition" geregelt. Wir bitten die Dopplung aufzulösen und nur an einer Stelle zu regeln.</p>
response	<p>Noted</p> <p>Please note that the intent of this non-exhaustive material is to provide guidance in order to make an analysis of activities that could cause FOD. It is the responsibility of the aerodrome operator to identify which are the suitable measures in each case and implement them in order to prevent FOD.</p> <p>For example, point (d) provides an example solution to address the debris caused by the activities mentioned there, while point (e) refers to paved or non-paved surfaces, as a potential source of FOD, without mentioning in an exhaustive manner the areas that need to be taken care of.</p> <p>Stands should be inspected before and after their use by the aircraft, in order to make sure the non-presence of FOD, but also in order to identify potential aircraft damage.</p>

AMC1 ADR.OPS.B.016(b)(3) Foreign object debris control programme

p. 106-107

comment	364	comment by: <i>Gatwick Airport</i>
	No Comment	
response	Noted	
comment	413	comment by: <i>Federal Ministry of Transport Germany, Aerodrome Department</i>
	<p>Insbesondere im Hinblick auf die Ursachenermittlung sollte zwischen FOD, die Teile eines Luftfahrzeuges sein könnten und sonstigen FOD unterschieden werden, da hier der zeitliche Faktor eine große Rolle spielt (siehe auch Anmerkungen zu ADR.OPS.B.016). Die Dringlichkeit der Feststellung von Funden auf dem Rollfeld ist im Vergleich zur Entleerung von FOD-Sammlern auf dem Vorfeld (Inhalt wie Kofferranhänger, z.T. auch Verwendung als Mülleimer) zu unterscheiden.</p>	
response	<p>Accepted</p> <p>EASA has the view that the proposed provisions address the issue in an adequate manner.</p>	
comment	925 ❖	comment by: <i>ADV - German Airports Association</i>
	ADV specifically supports ACI Europe's objection to all Soft Law to ADR.OPS.B.016.	



	<p>They add additional burden to aerodrome operators for no clear benefit. Many provisions are not considering the operational setup and division of responsibilities at aerodromes. Many are clearly not proportionate to the size and complexity of the aerodromes. The provisions should be rewritten in collaboration with stakeholders and moved to GM. Airports may still submit detailed comments of particular importance to them.</p>
response	<p>Noted</p> <p>Please refer to the content of ICAO State Letter 25 of 2018. Proper FOD management is an essential issue with clear safety benefits.</p>
comment	<p>1084 comment by: SAS</p> <p>Supported</p>
response	<p>Noted</p> <p>EASA would like to thank you for your support regarding the proposed changes.</p>
comment	<p>1268 comment by: Swedish Transport Agency</p> <p>Supported.</p>
response	<p>Noted</p> <p>EASA would like to thank you for your support regarding the proposed changes.</p>
comment	<p>1808 comment by: SinaJobstHAM</p> <p>Unterpunkt (b):</p> <p>Siehe hierzu GM1 ADR.OPS.B.016 (b)(2)(a) Die Anforderung ist eine Dopplung zu GM1 ADR.OPS.B.016 (b)(2)(a). Wir bitten darum Dopplungen zu streichen/ zu vermeiden.</p> <p>Unterpunkt (d): Hier sehen wir die Gefahr der Überinterpretation durch die Aufsichtsbehörden. Identifikation des FOD und Versucher zu analysieren sollte nicht für jedes FOD verpflichtend sein, sondern dort wo es angebracht ist. Der Aufwand der Erfassung jedes FOD's steht nicht im Verhältnis zum Nutzen. Grundsätzlich muss jedes FOD beseitigt werden, da wo erforderlich sollte es Erfassung und Analysen geben.</p>
response	<p>Noted</p> <p>The AMC in question is related to the development of the FOD management programme. The actions identified will be then performed in the context of the operational activities.</p>



comment	1886	comment by: <i>Copenhagen Airports A/S</i>
	Subject: Procedures included in the aerodrome manual. Proposal: Delete the wording 'to be included in the aerodrome manual'. Justification: FOD prevention is already an item under AMC3 ADR.OR.E.005 part 15.	
response	Noted That part of the aerodrome manual concerns only the apron.	

GM1 ADR.OPS.B.016(b)(3) Foreign object debris control programme

p. 107

comment	365	comment by: <i>Gatwick Airport</i>
	No Comment	
response	Noted	

comment	533	comment by: <i>ISAVIA ohf.</i>
	In many cases safety report or safety related information are not reported the same day related to apron. Therefore, it can be difficult to perform FOD inspection in relation to safety reports on the apron. Suggestion to change this text to maneuvering area. Also add after unusual natural events, such as extreme weather or earthquakes.	
response	Partially accepted The fact that a report may be submitted at later stage, does not justify the proposed amendment. The text has been amended to also include the case of unusual natural phenomena.	

comment	925 ❖	comment by: <i>ADV - German Airports Association</i>
	ADV specifically supports ACI Europe's objection to all Soft Law to ADR.OPS.B.016. They add additional burden to aerodrome operators for no clear benefit. Many provisions are not considering the operational setup and division of responsibilities at aerodromes. Many are clearly not proportionate to the size and complexity of the aerodromes. The provisions should be rewritten in collaboration with stakeholders and moved to GM. Airports may still submit detailed comments of particular importance to them.	
response	Noted Please refer to the content of ICAO State Letter 25 of 2018. Proper FOD management is an essential issue with clear safety benefits.	



comment	1085	comment by: SAS
	Supported	
response	Noted	
	EASA would like to thank you for your support regarding the proposed changes.	
comment	1269	comment by: Swedish Transport Agency
	Supported.	
response	Noted	
	EASA would like to thank you for your support regarding the proposed changes.	
comment	1810	comment by: SinaJobstHAM
	Wir bitten um eine klarere Formulierung. Hier ist unklar, ob die zusätzliche Beleuchtung an die Kontrollfahrer gerichtet ist, oder die "personnel on the movement area". Die Kontrollwagen sind mit zusätzlicher Beleuchtung für Nachtkontrollen ausgestattet. Es besteht die Gefahr der Überinterpretation an die Anforderung zur Beleuchtung anderer Fahrzeuge bzw. der Arbeitsplatzbeleuchtung.	
response	Accepted	
	The text has been reviewed and amended. Please note that the intent of this material is to simply raise awareness that at night conditions it is difficult to detect FOD, and thus if the vehicles used for such operations are equipped with additional lights, the work of the personnel involved is facilitated.	
comment	1887	comment by: Copenhagen Airports A/S
	Subject: When inspections occur at night, after the runway is closed or before the runway is opened, additional lights/lighting systems on vehicles are beneficial to better detect FOD Proposal: Delete the wording 'after the runway is closed or before the runway is opened'. Justification: To descriptive, the intention is kept without the wording.	
response	Accepted	
	The text has been amended.	

AMC1 ADR.OPS.B.016(b)(4) Foreign object debris control programme

p. 108

comment	366	comment by: Gatwick Airport
	No Comment	



response	Noted
comment	<p>925 ❖ comment by: <i>ADV - German Airports Association</i></p> <p>ADV specifically supports ACI Europe's objection to all Soft Law to ADR.OPS.B.016.</p> <p>They add additional burden to aerodrome operators for no clear benefit. Many provisions are not considering the operational setup and division of responsibilities at aerodromes. Many are clearly not proportionate to the size and complexity of the aerodromes. The provisions should be rewritten in collaboration with stakeholders and moved to GM. Airports may still submit detailed comments of particular importance to them.</p>
response	<p>Noted</p> <p>Please refer to the content of ICAO State Letter 25 of 2018. Proper FOD management is an essential issue with clear safety benefits.</p>
comment	<p>1086 comment by: <i>SAS</i></p> <p>Supported</p>
response	<p>Noted</p> <p>EASA would like to thank you for your support regarding the proposed changes.</p>
comment	<p>1270 comment by: <i>Swedish Transport Agency</i></p> <p>Supported.</p>
response	<p>Noted</p> <p>EASA would like to thank you for your support regarding the proposed changes.</p>

GM1 ADR.OPS.B.016(b)(4) Foreign object debris control programme	p. 108
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comment	<p>367 comment by: <i>Gatwick Airport</i></p> <p>No Comment</p>
response	<p>Noted</p>
comment	<p>582 comment by: <i>Zurich Airport</i></p> <p>Please add the sweeping (FOD-) carpet in the list of possible equipment for the removal of FOD.</p> <p>It should be mentioned, that the access to the container areas should never be blocked by objects.</p>



response	Accepted The text has been amended in the suggested direction.
comment	925 ❖ comment by: <i>ADV - German Airports Association</i> ADV specifically supports ACI Europe's objection to all Soft Law to ADR.OPS.B.016. They add additional burden to aerodrome operators for no clear benefit. Many provisions are not considering the operational setup and division of responsibilities at aerodromes. Many are clearly not proportionate to the size and complexity of the aerodromes. The provisions should be rewritten in collaboration with stakeholders and moved to GM. Airports may still submit detailed comments of particular importance to them.
response	Noted Please refer to the content of ICAO State Letter 25 of 2018. Proper FOD management is an essential issue with clear safety benefits.
comment	1087 comment by: <i>SAS</i> Supported
response	Noted EASA would like to thank you for your support regarding the proposed changes.
comment	1271 comment by: <i>Swedish Transport Agency</i> Supported.
response	Noted EASA would like to thank you for your support regarding the proposed changes.

AMC1 ADR.OPS.B.016(b)(5) Foreign object debris control programme

p. 108

comment	368 comment by: <i>Gatwick Airport</i> No Comment
response	Noted
comment	414 comment by: <i>Federal Ministry of Transport Germany, Aerodrome Department</i> Siehe hierzu Anmerkungen bezüglich ADR.OPS.B.016 sowie AMC1



	ADR.OPS.B.016(b)(3). FOD Container auf dem Vorfeld enthalten oft auch Müll (Taschentücher, Kofferranhänger, Papierschnipsel etc.). Eine detaillierte Dokumentation dieses Mülls muss u. E. nicht erfolgen. Dabei sollten auch hygienische Aspekte bedacht werden.
response	Noted It is important to analyse FOD and identify their sources and trends, in order to determine the corrective measures needed to be taken in order to prevent recurrence and minimise the risk, but also to determine the effectiveness of the programme.
comment	925 ❖ comment by: <i>ADV - German Airports Association</i> ADV specifically supports ACI Europe's objection to all Soft Law to ADR.OPS.B.016. They add additional burden to aerodrome operators for no clear benefit. Many provisions are not considering the operational setup and division of responsibilities at aerodromes. Many are clearly not proportionate to the size and complexity of the aerodromes. The provisions should be rewritten in collaboration with stakeholders and moved to GM. Airports may still submit detailed comments of particular importance to them.
response	Noted Please refer to the content of ICAO State Letter 25 of 2018. Proper FOD management is an essential issue with clear safety benefits.
comment	1088 comment by: <i>SAS</i> Supported
response	Noted EASA would like to thank you for your support regarding the proposed changes.
comment	1272 comment by: <i>Swedish Transport Agency</i> Supported.
response	Noted EASA would like to thank you for your support regarding the proposed changes.
comment	1585 comment by: <i>Brussels Airport Company</i> The reference to 'ALL FOD' is completely unrealistic and impossible to achieve for an aerodrome operator. Proposal to delete, or relocate as GM. Reference is made to ICAO Doc 9981, not Annex 14 standards or even recommendations.

response	Noted It is important to analyse FOD and identify their sources and trends, in order to determine the corrective measures needed to be taken in order to prevent recurrence and minimise the risk, but also to determine the effectiveness of the programme.
comment	1889 comment by: <i>Copenhagen Airports A/S</i> Subject: a) Proposal: Move to GM or rephrase so the recording, analysing and evaluation covers relevant FOD instead of 'all'. Justification: Copenhagen Airports supports the intention of FOD analyses. The current wording that covers all FOD on the aerodrome expand to far. Copenhagen Airports record, analyze and evaluate FOD found on runways, taxiways, and maneuvering area. FOD on the apron is identified and collected but analyzed ad hoc to find and eliminate the source of the largest FOD groups.
response	Noted The fact that an FOD may be found on an apron does not mean that its source was indeed the apron (it may have been created elsewhere). The AMC already states that an investigation is to be conducted when needed.

GM1 ADR.OPS.B.016(b)(5) Foreign object debris control programme

p. 109

comment	369 comment by: <i>Gatwick Airport</i> No Comment
response	Noted
comment	925 ❖ comment by: <i>ADV - German Airports Association</i> ADV specifically supports ACI Europe's objection to all Soft Law to ADR.OPS.B.016. They add additional burden to aerodrome operators for no clear benefit. Many provisions are not considering the operational setup and division of responsibilities at aerodromes. Many are clearly not proportionate to the size and complexity of the aerodromes. The provisions should be rewritten in collaboration with stakeholders and moved to GM. Airports may still submit detailed comments of particular importance to them.
response	Noted Please refer to the content of ICAO State Letter 25 of 2018. Proper FOD management is an essential issue with clear safety benefits.



comment	1081	comment by: <i>ACI Europe</i>
	ACI Europe objects to the AMCs on FOD. They add additional burden to aerodrome operators for no clear benefit. Even the IR has no basis in ICAO standards. For all AMC's the initial text above the sub-points may remain AMC, all the subpoints should go to GM.	
response	Noted Please refer to the content of ICAO State Letter 25 of 2018. Proper FOD management is an essential issue with clear safety benefits.	
comment	1089	comment by: <i>SAS</i>
	Supported	
response	Noted EASA would like to thank you for your support regarding the proposed changes.	
comment	1273	comment by: <i>Swedish Transport Agency</i>
	Supported.	
response	Noted EASA would like to thank you for your support regarding the proposed changes.	
comment	1591	comment by: <i>Brussels Airport Company</i>
	How can contaminants from winter conditions be reported as FOD? Proposal to delete element (k).	
response	Accepted The text has been amended.	
comment	1812	comment by: <i>SinaJobstHAM</i>
	Die Differenzierung von FOD in Kategorien erzeugt einen sehr hohen Schulungs- und Verwaltungsaufwand und steht in keinem Verhältnis zu einem potentiellen Nutzen. Der Mitarbeiter sollte Beton/Ashphalt-Ablösungen von Flugzeugteilen unterscheiden können, aber auch nicht mehr. Wir empfehlen dieses GM zu streichen oder wesentlich zu kürzen.	
response	Noted This material provides a non-exhaustive list of objects that may be found at an aerodrome. As with all reports, a proper description/categorisation of the reported event (here FOD) allows the aerodrome operator to take appropriate action. It is	

therefore important that this is communicated to all personnel, to enable a proper functioning of the system.

AMC1 ADR.OPS.B.025 Operation of vehicles

p. 109-110

comment 370 comment by: *Gatwick Airport*
No Comment

response Noted

comment 577 comment by: *Zurich Airport*
It should be specified "how" a proper description could be made.

response Noted

comment 655 comment by: *CAA Norway*
AMCs and GMs to ADR.OPS.B.025 Authorisation of vehicle drivers (ALL)
COMMENT: Supported.

response Noted
EASA would like to thank you for your support regarding the proposed changes.

comment 1090 comment by: *SAS*
Supported

response Noted
EASA would like to thank you for your support regarding the proposed changes.

comment 1619 comment by: *Atle Vivas*
Supported ALL

response Noted
EASA would like to thank you for your support regarding the proposed changes.

comment 1623 comment by: *Ruth (Spanish CAA)*
AMC1 ADR.OPS.B.025(h)

The AMC1 ADR.OPS.B.025(h) states: "The escort of a vehicle whose driver has been issued a temporary driving permit should only be performed by the aerodrome



response

Noted

comment

656

comment by: CAA Norway

AMCs and GMs to ADR.OPS.B.025 Authorisation of vehicle drivers (ALL)

COMMENT: Supported.

response

Noted

EASA would like to thank you for your support regarding the proposed changes.

comment

1092

comment by: SAS

Supported

response

Noted

EASA would like to thank you for your support regarding the proposed changes.

GM2 ADR.OPS.B.025 Operation of vehicles

p. 111-118

comment

373

comment by: Gatwick Airport

No Comment

response

Noted

comment

1093

comment by: SAS

Supported

response

Noted

EASA would like to thank you for your support regarding the proposed changes.

GM1 ADR.OPS.B.025(a)(1) Authorisation of vehicle drivers

p. 118

comment

659

comment by: CAA Norway

AMCs and GMs to ADR.OPS.B.025 Authorisation of vehicle drivers (ALL)

COMMENT: Supported.

response

Noted

EASA would like to thank you for your support regarding the proposed changes.

comment

883

comment by: Gatwick Airport



	No comment
response	Noted
comment	915 comment by: <i>ADV - German Airports Association</i> The aerodrome operator is not always able or allowed to issue authorisation to every employee of an authority (police etc.). Those entities ensure the implementation of an appropriate system for qualification and training.
response	Noted The proposed provisions foresee the issuance of a relevant authorisation by the aerodrome operator. This is in line with the essential requirements for aerodromes contained in Annex VII to Regulation (EU) 2018/1139. The intent of the proposed system is to ensure that all personnel allowed to drive unescorted in this area are in a position to do so safely.
comment	1094 comment by: <i>SAS</i> Supported
response	Noted EASA would like to thank you for your support regarding the proposed changes.
comment	1278 comment by: <i>Swedish Transport Agency</i> Supported.
response	Noted EASA would like to thank you for your support regarding the proposed changes.

AMC1 ADR.OPS.B.025(b) Authorisation of vehicle drivers

p. 118-119

comment	415 comment by: <i>Federal Ministry of Transport Germany, Aerodrome Department</i> Siehe Anmerkungen zu ADR.OPS.B.025 hinsichtlich der Definition der Bezeichnung „other operational areas“ sowie der Umstellung der Begrifflichkeiten von „practical training“ auf „on-the-job-training“.
response	Accepted Additional guidance has been provided with regard to the use of the term ‘other operational areas’, while the terms used in the AMC are amended.



comment	<p>467</p> <p>comment by: <i>European Powered Flying Union</i></p> <p>AMC1 Authorisation of vehicle drivers Training of drivers (General) (1) Theoretical training p 118 and 119/207</p> <p>Question: What about language requirements?</p> <p>Rationale</p> <p>We think without proper language training, checking and testing, the risk of misunderstandings, incidents, accidents will not decrease. Here, safety means one common language per frequency, no slangs, no dialects, correct R/T phraseology in one common language. We know this is a tough and probably a costly requirement, but incidents and accidents, particularly at large airports normally are much more expensive.</p>
response	<p>Partially accepted</p> <p>The proposed provisions address the issue of training, including for language. The provisions regarding language have been amended. With regard to the part of the comment that refers to one common language per frequency, please note that the proposed provisions do not exclude this possibility, as this is something that can be agreed with between the parties, when the prerequisites that this comment implies are implemented.</p>
comment	<p>660</p> <p>comment by: <i>CAA Norway</i></p> <p>AMCs and GMs to ADR.OPS.B.025 Authorisation of vehicle drivers (ALL) COMMENT: Supported.</p>
response	<p>Noted</p> <p>EASA would like to thank you for your support regarding the proposed changes.</p>
comment	<p>911</p> <p>comment by: <i>ADV - German Airports Association</i></p> <p>ADV specifically supports ACI Europe's objection to all AMCs to ADR.OPS.B.025.</p> <p>They add additional burden to aerodrome operators for no clear benefit. Many provisions are not considering the operational setup and division of responsibilities at aerodromes. Many are clearly not proportionate to the size and complexity of the aerodromes. The provisions should be rewritten in collaboration with stakeholders and moved to GM. Airports may still submit detailed comments of particular importance to them.</p>
response	<p>Noted</p> <p>EASA has the view that there is a safety benefit related to the standardisation of the training areas and the relevant training procedures, which allow the necessary</p>



flexibility. Please refer to the rationale of the proposal and the content of ICAO State Letter 25/2018.

comment 977 comment by: *Aerodrome safety regulation departement*

The training drivers program could be very demanding at aerodrome with a big numbers of drivers and it could have bad effect on the occupation of the movement area by drivers in training sessions. It could be useful to add the possibility of "on the job training » on simullator to avoid saturation of ground frequencies and vehicles on the platform.

response Noted
EASA agrees that the introduction of such training equipment may have a positive impact. However, it also considers that a prior analysis of the preconditions for their introduction is also necessary.

comment 1032 comment by: *Flughafen Berlin Brandenburg GmbH*

We would like to point out that the airport operator is not in a position to provide on-the-job-training for all specialized vehicle/equipment operating on the airside. Furthermore, it should be clarified that the airport operator can only ensure a rather generic training (airside traffic rules, infrastructural familiarization). Job-specific training and any introduction to the operation of specialized vehicle/ equipment should be and remain the responsibility of the relevant organization employing the driver in question.

Hence, we propose to re-phrase section 2 as follows:

During the phase of the on-the-job training, which needs to be of a defined and adequate duration, the trainees should be provided with adequate practical training and familiarisation with the aerodrome and its procedures.

Additional introductions to the operation/use of any specialized vehicle/ equipment associated with the driver's task, as appropriate, should be provided by the relevant employer.

The performance of the trainee during the provision of the on-the-job training should be assessed

response Accepted
The relevant provision and AMC have been amended in the suggested direction.

comment 1055 comment by: *Gatwick Airport*

Sub para (b)(3) provide clarity by stating the assessment should be a practical and/or theory assessment.

response Accepted



The text has been amended in the suggested direction.

comment 1095 comment by: SAS

Supported

response Noted

EASA would like to thank you for your support regarding the proposed changes.

comment 1204 comment by: ACI Europe

ACI EUROPE objects to the AMCs on Autorisation of vehicle drivers. They add additional burden to aerodrome operators for no clear benefit. Many provisions are not considering the operational setup and division of responsibilities at aerodromes. Many are clearly not proportionate to the size and complexity of the aerodromes. The provisions should be rewritten in collaboration with stakeholders and moved to GM. Airports may still submit detailed comments of particular importance to them.

response Noted

EASA has the view that there is a safety benefit related to the standardisation of the training areas and the relevant training procedures, which allow the necessary flexibility. Please refer to the rationale of the proposal and the content of ICAO State Letter 25/2018.

comment 1279 comment by: Swedish Transport Agency

Supported.

response Noted

EASA would like to thank you for your support regarding the proposed changes.

comment 1486 comment by: Andreas Herndler, CAA Austria

Inclusion of CBT (Computer based training) instead of OJT would be helpful.

Therefore following adjustments are suggested:

(2) ~~On the job training~~ training
~~During the phase of the on the job training, which needs to be of a defined and adequate duration, the trainees should be provided with adequate practical training and familiarisation with the aerodrome and its procedures. The training during this phase should also cover the use of any specialised vehicle/equipment associated with the driver's task, as appropriate. The performance of the trainee during the provision of the on the job training should be assessed.~~

(2) Computer Based Training (CBT)



response	<p>... (3) Assessment of the candidate Following the completion of the on-the-job training, the competence of the driver as a whole should be assessed and if found adequate, a driving authorisation should be issued.</p> <p>Noted</p> <p>EASA agrees that the introduction of such training equipment may have a positive impact. However, it also considers that a prior analysis of the preconditions for their introduction is also necessary. Moreover, the proposal does not take into account the need to assess a candidate in real operating conditions.</p>
comment	<p>1523 comment by: <i>F. Ehmoser</i></p> <p>Delete (2) and (3) and define text for practical training and exam</p> <p><i>Inclusion of CBT (Computer based training) would be helpful</i></p>
response	<p>Noted</p> <p>EASA agrees that the introduction of such training equipment may have a positive impact. However, it also considers that a prior analysis of the preconditions for their introduction is also necessary. Moreover, the proposal does not take into account the need to assess a candidate in real operating conditions.</p>
comment	<p>1554 comment by: <i>Graz Airport</i></p> <p>delete (2) and (3) and define text for practical training and exam</p> <p>inclusion of CBT (Computer based training) would be helpful</p>
response	<p>Noted</p> <p>EASA agrees that the introduction of such training equipment may have a positive impact. However, it also considers that a prior analysis of the preconditions for their introduction is also necessary. Moreover, the proposal does not take into account the need to assess a candidate in real operating conditions.</p>
comment	<p>1600 comment by: <i>Brussels Airport Company</i></p> <p>(b)(2) no driver can be given a drivers licence without having followed an on-the-job training and assessment, irrelevant of general driving or manoeuvring area driving training.</p>

response	<p>This is practically unfeasible (not manageable for a large aerodrome) to follow this course of action.</p> <p>Proposal to change to this course of action:</p> <ul style="list-style-type: none"> - Theoretical course - Practical training and assessment (e.g. simulator based) - OJT (within the approved organisation, not the aerodrome operator) <p>Partially accepted</p> <p>The proposed training does not intend to assess the capability of the driver to drive, but rather to provide the necessary training to operate in a rather different operating environment, and of course to assess his or her capability to do so. The text has been amended. EASA agrees that the introduction of such training equipment may have a positive impact. However, it also considers that a prior analysis of the preconditions for their introduction is also necessary.</p>
comment	<p>1622 comment by: <i>Atle Vivas</i></p> <p>Supported ALL</p>
response	<p>Noted</p> <p>EASA would like to thank you for your support regarding the proposed changes.</p>
comment	<p>1781 comment by: <i>UAF (Union des Aéroports Français)</i></p> <p>UAF fully support ACI E comment#1204</p>
response	<p>Noted</p> <p>Please refer to the reply to comment No 1204.</p>
comment	<p>1816 comment by: <i>SinaJobstHAM</i></p> <p>Jeder Mitarbeiter der eine Schulung zum Befahren der manouevering area erhält, muss vorher das Training für das Vorfeld abgeschlossen haben. Die Schulung "Vorfeldsicherheit" schließt mit einem schriftlichen Test ab. Die Forderung auch die Schulung für das Befahren des Rollfeldes mit einer schriftlichen Prüfung abzuschließen weisen wir auf Grund des hohen Mehraufwandes zurück und bitten um Streichung.</p>
response	<p>Noted</p> <p>Please note that these are two different training programmes covering different needs of drivers operating in different operational areas.</p>
comment	<p>1955 comment by: <i>European Cockpit Association</i></p>



	<p>AMC1 ADR.OPS.B.025(b) (a)(2)</p> <p>ECA's comment: The maneuvering area training programme should be repeated in specific time intervals (recurrent training) to cope with changed local regulations and requirements</p>
response	<p>Noted</p> <p>The proposed provisions address this issue.</p>

GM1 ADR.OPS.B.025(b) Authorisation of vehicle drivers p. 119

comment	<p>1056 comment by: Gatwick Airport</p> <p>Agreed</p>
response	<p>Noted</p> <p>EASA would like to thank you for your support regarding the proposed changes.</p>

comment	<p>1096 comment by: SAS</p> <p>Supported</p>
response	<p>Noted</p> <p>EASA would like to thank you for your support regarding the proposed changes.</p>

comment	<p>1280 comment by: Swedish Transport Agency</p> <p>Supported.</p>
response	<p>Noted</p> <p>EASA would like to thank you for your support regarding the proposed changes.</p>

AMC2 ADR.OPS.B.025(b) Authorisation of vehicle drivers p. 119-125

comment	<p>92 comment by: Aerodrome safety regulation departement</p> <p>The driving training program is very detailed. If non-compliant to the program, aerodrome operators will need to ask for an Altmoc. We suggest titles 1), 2)... remain at an AMC level whereas details i), ii)... be transferred into a GM on the pattern of RFFS training program.</p>
response	<p>Noted</p>



As explained in the rationale of the proposal, there is a need to ensure the standardisation of the training, in terms of the knowledge areas (not its content) that are covered, but also in order to ensure safety, given its significance to runway safety.

Please also note that the areas covered by the AMC correspond to the areas already covered by the various applicable requirements (e.g. vehicle operations, emergency procedures, communications, etc.). Therefore, these technical areas, one the one hand, are considered necessary to be implemented, while, on the other hand, they are not expected to have an actual impact on aerodrome operators.

Kindly also note that in all other aviation domains a similar approach is applied with respect to training.

comment

209

comment by: *Jan Kristensen*

Practical Training programme for winter operations is lacking totally. I propose driving training under real snow conditions: 2 hours with snow blower trucks, 4 hours with sweepers and 2 hours with spreaders. Also the theory for group driving according to a snow removal plan for the airport must be mandatory. How can airports be prepared if they have no training before the winter season starts?

response

Noted

comment

325

comment by: *John Hamshare (Heathrow)*

Page 119 AMC2 ADR.Ops.B.025(b)
It would be easier to read if the AMC2, 3, 4, 5 were rewritten in 2 sections – one for apron drivers and one for manoeuvring area drivers.
New text proposed - AMC2 ADR .Ops.B.025 (a) (4) new (vi) How to report incidents if a driver is involved in one, or witnesses such an event.

response

Accepted

The text has been amended as suggested.

comment

416

comment by: *Federal Ministry of Transport Germany, Aerodrome Department*

Unter Punkt a)7) werden nun Schulungsinhalte hinsichtlich der menschlichen Leistung gefordert. Hierzu wäre ein Querverweis auf relevante Dokumente oder eine entsprechende Erläuterung im GM wünschenswert.

Siehe Anmerkungen zu ADR.OPS.B.025 hinsichtlich der Definition der Bezeichnung „other operational areas“ sowie der Umstellung der Begrifflichkeiten von „practical training“ auf „on-the-job-training“.

Punkt c)6) erwähnt neben FOD auch andere Teile „other debris“. Was genau ist damit gemeint? Wir bitten um Klarstellung.



response Noted

With regard to human performance, kindly note that the existing material already contains references to relevant ICAO documents. EASA will however consider the need to develop specific material related to human factors with regard to such operations in the future.

With regard to point (c)(6), kindly note that there may be debris which does not meet the definition of the FOD which is ‘an inanimate object within the movement area which has no operational or aeronautical function and which has the potential to be a hazard to aircraft operations’.

Additional guidance has been provided with regard to the term ‘other operational areas’.

comment 721 comment by: *Irish Aviation Authority*

Reference (a)(4) propose removing reference to "stands" as these are located on aprons

response Accepted

The text has been amended.

comment 911 ❖ comment by: *ADV - German Airports Association*

ADV specifically supports ACI Europe's objection to all AMCs to ADR.OPS.B.025.

They add additional burden to aerodrome operators for no clear benefit. Many provisions are not considering the operational setup and division of responsibilities at aerodromes. Many are clearly not proportionate to the size and complexity of the aerodromes. The provisions should be rewritten in collaboration with stakeholders and moved to GM. Airports may still submit detailed comments of particular importance to them.

response Noted

EASA has the view that there is a safety benefit related to the standardisation of the training areas and the relevant training procedures, which allow the necessary flexibility. Please refer to the rationale of the proposal and the content of ICAO State Letter 25/2018.

comment 1024 comment by: *Flughafen Berlin Brandenburg GmbH*

Consider to revise the wording of section (4) for clarification purposes as follows:

...

(4) surface paint markings that
 (i) delineate the boundary between aircraft stands and taxiways;
 (ii) and/or indicate the location of safety distances as per table D-2 that are required



	for safe taxiing of aircraft, ...
response	Noted
comment	<p>1026 comment by: Flughafen Berlin Brandenburg GmbH</p> <p>(8) Emergency procedures, including: (i) actions and responsibilities in a crisis situation (any accident or serious incident occurring on the aerodrome); (ii) action in the event of a vehicle accident; (iii) specific action in the event of a vehicle striking an aircraft; (iv) action in the event of fire; (v) action in the event of an aircraft accident/incident; and (vi) action in the event of personal injury.</p> <p>We would like to propose the deletion (8)(iii). Rationale: A vehicle striking an aircraft is always classified as an incident or accident – as the case may be. Hence, point iii) is already covered/ included by point v)</p> <p>In this context see also no 1.1, Annex IV of regulation (EU) 2015/1018.</p>
response	<p>Noted</p> <p>Kindly note that the emphasis in the case (iii) is the where the vehicle itself collides with an aircraft, while case (v) deals in general with an aircraft occurrence. The reason for this is to ensure that the training does cover the necessary actions to be taken in both cases.</p>
comment	<p>1027 comment by: Flughafen Berlin Brandenburg GmbH</p> <p>Some of the items/ topics listed under point (5) and (6) are not necessarily related to driving. They are either relevant for a broader group of all staff working airside - e.g. (6) ii) to (6) v) – or to specific specialist functions – e.g. (6)(xii) which primarily relates to tug drivers.</p> <p>Please consider a rephrasing of the mentioned sections.</p>
response	<p>Noted</p> <p>Please note that these are hazards that are common to all personnel operating in this aerodrome area, including drivers.</p>
comment	<p>1029 comment by: Flughafen Berlin Brandenburg GmbH</p> <p>“Essential communication systems” should not be classified as a mandatory training content. Rationale: For most airside service roads and or driver related tasks (radio) communication is not required.</p>



response	Noted
comment	<p>1030 comment by: <i>Flughafen Berlin Brandenburg GmbH</i></p> <p>From our point of view, section (2)(ii) is a general safety precaution for all staff working airside as the use of personal protective equipment is not restricted to vehicle drivers only. This training requirement could be better covered within –e.g. - AMC1 ADR.OR.D.017 (a);(b) as section (c) of that AMC already describes the desired training content.</p> <p>Furthermore, the use of hearing protection as a vehicle driver might contravene the requirements of AMC1 ADR.OPS.B.027(h)(2).</p>
response	Noted
comment	<p>1031 comment by: <i>Flughafen Berlin Brandenburg GmbH</i></p> <p>AMC2 ADR.OPS.B.025(b) is very detailed. We would propose to keep AMC level at a more general nature (Arabic numerals and above) while details should remain in the GM (Roman numerals and below).</p>
response	<p>Noted</p> <p>EASA has the view that there is a need to ensure the standardisation of the training, in terms of the knowledge areas (not its content) that are covered, but also in order to ensure safety, given its significance with regard to runway safety.</p>
comment	<p>1058 comment by: <i>Gatwick Airport</i></p> <p>Inclusion under sub Para (a) (2), (3) and/or (7) of reference to 'Sterile Cabin' in line with EAPPRI 3 and the need to reduce distractions.</p>
response	Accepted
comment	<p>1097 comment by: <i>SAS</i></p> <p>Supported</p>
response	<p>Noted</p> <p>EASA would like to thank you for your support regarding the proposed changes.</p>
comment	<p>1205 comment by: <i>ACI Europe</i></p> <p>ACI EUROPE objects to the AMCs on Autorisation of vehicle drivers. They add additional burden to aerodrome operators for no clear benefit. Many provisions are not considering the operational setup and division of responsibilities at aerodromes. Many are clearly not proportionate to the size and complexity of the aerodromes.</p>

response	The provisions should be rewritten in collaboration with stakeholders and moved to GM. Airports may still submit detailed comments of particular importance to them.
response	Noted
comment	1281 comment by: <i>Swedish Transport Agency</i>
response	Supported.
response	Noted EASA would like to thank you for your support regarding the proposed changes.
comment	1375 comment by: <i>Andreas Herndler, CAA Austria</i>
response	(3) (ii) company insignia should be deleted
response	Noted
comment	1386 comment by: <i>Flughafen Berlin Brandenburg GmbH</i>
response	Please clarify which of the “emergency procedures used by ATS relating to aircraft” mentioned in (c)(1) might be of relevance for airside drivers.
response	Noted
comment	1527 comment by: <i>F. Ehmoser</i>
response	(3) (ii) company insignia to be deleted <i>The improvement of safety by showing company insignia can not be seen</i>
response	Noted
comment	1782 comment by: <i>UAF (Union des Aéroports Français)</i>
response	UAF fully support ACI E comment#1205
response	Please refer to the reply to comment No 1205.
comment	1818 comment by: <i>SinaJobstHAM</i>
response	zu Unterpunkt (a)(3): Die Themen Prüfung, tägliche Sichtkontrolle und Wartung von Fahrzeugen, sowie Meldewesen bei Beschädigung wird bereits in anderen Pflicht-Schulungen vermittelt. Die Fahrerschulung sollte sich auf die wesentlichen Inhalte für die Fahrzeugführer beschränken und Dopplungen vermieden werden.

	<p>zu Unterpunkt (c): Wir empfehlen eine stärkere Abgrenzung zwischen der Fahreschulung für das Vorfeld und für das Rollfeld. Da die erfolgreich abgeschlossene Vorfeldsicherheitsschulung eine Voraussetzung für die Rollfeld-Schulung ist, sollten sich die Inhalte nicht doppelnd.</p>
response	<p>Noted</p> <p>It is up to the aerodrome operator to develop the details of the training programme.</p>

AMC3 ADR.OPS.B.025(b) Authorisation of vehicle drivers

p. 125-127

comment	<p>417 comment by: <i>Federal Ministry of Transport Germany, Aerodrome Department</i></p> <p>Siehe Anmerkungen zu ADR.OPS.B.025 hinsichtlich der Umstellung der Begrifflichkeiten von „practical training“ auf „on-the-job-training“.</p>
response	<p>Accepted</p> <p>The text has been amended.</p>
comment	<p>468 comment by: <i>European Powered Flying Union</i></p> <p>AMC3 ADR.OPS.B.025(b) Authorisation of vehicle drivers Radiotelephony (b)(4) Use of callsigns p 126/207</p> <p>Please add as (iv) the use of aircraft registrations to absolutely safely identify any aircraft world-wide.</p> <p>Rationale There are e.g. many "Speedbirds" at LHR, but each of these birds sport an easily identifiable unique aircraft registration clearly visible on the wings, the fuselage, in many cases above the flight deck windows or on the nosewheel well covers.</p>
response	<p>Noted</p>
comment	<p>911 ❖ comment by: <i>ADV - German Airports Association</i></p> <p>ADV specifically supports ACI Europe's objection to all AMCs to ADR.OPS.B.025.</p> <p>They add additional burden to aerodrome operators for no clear benefit. Many provisions are not considering the operational setup and division of responsibilities at aerodromes. Many are clearly not proportionate to the size and complexity of the aerodromes. The provisions should be rewritten in collaboration with stakeholders</p>



	and moved to GM. Airports may still submit detailed comments of particular importance to them.
response	Noted EASA has the view that there is a safety benefit related to the standardisation of the training areas and the relevant training procedures, which allow the necessary flexibility. Please refer to the rationale of the proposal and the content of ICAO State Letter 25/2018.
comment	<i>918</i> comment by: <i>Aleksandar Ilkovski</i> AMC3 ADR.OPS.B.025(b)(5): Swedavia suggest that 'conditional clearances' should not be used for vehicle drivers due to risks associated
response	Noted This AMC concerns the areas that the training needs to cover and does not regulate the issuance of clearances.
comment	<i>1023</i> comment by: <i>Flughafen Berlin Brandenburg GmbH</i> Please clarify if section (b)(1) would relate to truncated radio.
response	Noted Please refer to the relevant proposed provision.
comment	<i>1098</i> comment by: <i>SAS</i> Supported
response	Noted EASA would like to thank you for your support regarding the proposed changes.
comment	<i>1200</i> comment by: <i>Gatwick Airport</i> No comment
response	Noted
comment	<i>1206</i> comment by: <i>ACI Europe</i> ACI EUROPE objects to the AMCs on Autorisation of vehicle drivers. They add additional burden to aerodrome operators for no clear benefit. Many provisions are not considering the operational setup and division of responsibilities at aerodromes. Many are clearly not proportionate to the size and complexity of the aerodromes.

		The provisions should be rewritten in collaboration with stakeholders and moved to GM. Airports may still submit detailed comments of particular importance to them.
response	Noted	EASA has the view that there is a safety benefit related to the standardisation of the training areas and the relevant training procedures, which allow the necessary flexibility. Please refer to the rationale of the proposal and the content of ICAO State Letter 25/2018.
comment	1282	comment by: <i>Swedish Transport Agency</i> Supported.
response	Noted	EASA would like to thank you for your support regarding the proposed changes.
comment	1384	comment by: <i>Flughafen Berlin Brandenburg GmbH</i> AMC3 ADR.OPS.B.025(b) is too detailed. We advocate to move details (Roman numerals and below) to the GM.
response	Noted	EASA has the view that there is a safety benefit related to the standardisation of the areas that the training needs to cover.
comment	1636	comment by: <i>Brussels Airport Company</i> (b)(5) Proposal to (at least) remove the conditional clearance Proposal to change text: Vehicle drivers should use standard read back for instructions given. Rationale: give read back no matter what, standardize read back procedures to train drivers and to avoid confusion whether the instruction is related to a RWY yes or no.
response	Noted	This AMC concerns the areas that the training needs to cover and does not regulate the issuance of clearances.
comment	1783	comment by: <i>UAF (Union des Aéroports Français)</i> UAF fully support ACI E comment#1206
response	Noted	Please refer to the reply to comment No 1206.



AMC4 ADR.OPS.B.025(b) Authorisation of vehicle drivers

p. 127

comment

418

comment by: *Federal Ministry of Transport Germany, Aerodrome Department*

Die Anforderungen im Hinblick auf die Prüfer bzw. Beurteiler (Assessors) gehen unseres Erachtens zu weit. Insbesondere, da man auch weiterhin in der Landessprache funken kann, ist das Erfordernis eines Luftverkehrsspezialisten oder Sprachspezialisten mit luftverkehrsspezifischem Zusatztraining zu hinterfragen. Im Gegensatz zur Ausbildung von Luftfahrzeugführern, beinhaltet die Ausbildung von Personen, die auf dem Rollfeld fahren nur eine sehr begrenzte Anzahl von Phrasen und festgelegten Wortlauten. Die Anforderungen an die Prüfer stehen hierzu in keinem Verhältnis. Da es keine Standards für die neuen Prüfqualifikationen gibt, liegt es bei der zuständigen Behörde, hier im Rahmen der Aufsicht eine Anerkennung sicherzustellen. Dies wäre insbesondere aufgrund dieses AMC äußerst schwierig. Es sollte ausreichend sein, wenn die zu prüfenden Personen die Kenntnis entsprechender Wortgruppen und die Sprache z.B. einem Muttersprachler mit entsprechender Kenntnis der flugbetrieblichen Verfahren nachweisen können.

response

Partially accepted

The relevant AMC has been replaced, taking also into account the proposed changes to the relevant rule, in a manner that facilitates the development of a framework that allows the effective assessment of language proficiency, taking also into account the content of ICAO State Letter 25/2018.

Please note that the assessment of the language proficiency covers also persons that need to communicate in a language other than their mother tongue, while the intent is also to ensure a person's capability to use standard phraseology, as well as plain language, in usual and unusual situations, at the required level in all languages necessary.

comment

469

comment by: *European Powered Flying Union*

AMC4 ADR.OPS.B.025(b)
Authorisation of vehicle drivers
Language competence
(a) The aerodrome operator...
p 127/207

Language skills assessments and developing associated programmes cannot be an aerodrome operators task.

Rationale



	<p>Considering what is in place as regards FCL we propose to apply the same competence assessment level for all persons engaged in aerodrome (ground) operations.</p>
response	<p>Partially accepted</p> <p>The relevant AMC has been replaced, taking also into account the proposed changes to the relevant rule, in a manner that facilitates the development of a framework that allows the effective assessment of language proficiency, taking also into account the content of ICAO State Letter 25/2018. The proposal covers vehicle drivers and not all persons involved in aerodrome operations, given that the issue concerns runway incursions, which from an aerodrome point of view concern mainly vehicles.</p>
comment	<p>911 ❖ comment by: <i>ADV - German Airports Association</i></p> <p>ADV specifically supports ACI Europe's objection to all AMCs to ADR.OPS.B.025.</p> <p>They add additional burden to aerodrome operators for no clear benefit. Many provisions are not considering the operational setup and division of responsibilities at aerodromes. Many are clearly not proportionate to the size and complexity of the aerodromes. The provisions should be rewritten in collaboration with stakeholders and moved to GM. Airports may still submit detailed comments of particular importance to them.</p>
response	<p>Noted</p> <p>EASA has the view that there is a clear safety benefit related to the development of a framework for language proficiency of drivers operating in the manoeuvring area. Please also refer to the rationale of the proposal and the content of ICAO State Letter 25/2018.</p>
comment	<p>919 comment by: <i>Aleksandar Ilkovski</i></p> <p>AMC4 ADR.OPS.B.025(b)(c): Clarify/Define the sentence “are acceptable to the Competent Authority”. This needs to be addressed in authority requirements.</p>
response	<p>Accepted</p> <p>The relevant AMC has been replaced, taking also into account the proposed changes to the relevant rule, in a manner that facilitates the development of a framework that allows the effective assessment of language proficiency, taking also into account the content of ICAO State Letter 25/2018.</p>
comment	<p>960 comment by: <i>Airside safety</i></p> <p>daa raises concerns regarding aerodrome operator holding responsibility to provide assessors for language competency.</p>
response	<p>Noted</p>

comment	1021	comment by: <i>Flughafen Berlin Brandenburg GmbH</i>
	Section c) should be only relevant for cases where vehicle drivers are expected to communicate in a foreign language.	
response	Noted	
	The relevant AMC has been replaced, taking also into account on the one hand the proposed changes to the relevant rule, in a manner that facilitates the development of a framework that allows the effective assessment of language proficiency, and on the other hand the content of ICAO State Letter 25/2018. Please note that the intent of the language proficiency assessment is to establish a person's capability to use standard phraseology, as well as plain language, in usual and unusual situations, at the required level, in all languages necessary.	
comment	1022	comment by: <i>Flughafen Berlin Brandenburg GmbH</i>
	Please clarify if language specialists are also required for the assessment if vehicle drivers will communicate in (their) mother tongue via R/T with the relevant air traffic services unit.	
response	Noted	
	The relevant AMC has been replaced, taking also into account the proposed changes to the relevant rule, in a manner that facilitates the development of a framework that allows the effective assessment of language proficiency, taking also into account the content of ICAO State Letter 25/2018. Please note that the intent of the language proficiency assessment is to establish a person's capability to use standard phraseology, as well as plain language, in usual and unusual situations, at the required level, in all languages necessary.	
comment	1099	comment by: <i>SAS</i>
	Supported	
response	Noted	
	EASA would like to thank you for your support regarding the proposed changes.	
comment	1207	comment by: <i>ACI Europe</i>
	ACI EUROPE objects to the AMCs on Autorisation of vehicle drivers. They add additional burden to aerodrome operators for no clear benefit. Many provisions are not considering the operational setup and division of responsibilities at aerodromes. Many are clearly not proportionate to the size and complexity of the aerodromes. The provisions should be rewritten in collaboration with stakeholders and moved to GM. Airports may still submit detailed comments of particular importance to them.	



response	<p>Noted</p> <p>EASA has the view that there is a clear safety benefit related to the development of a framework for language proficiency of drivers operating in the manoeuvring area. Please also refer to the rationale of the proposal and the content of ICAO State Letter 25/2018.</p>
comment	<p>1283 comment by: <i>Swedish Transport Agency</i></p> <p>COMMENT: Remove the part "and which are acceptable to the Competent Authority" from item c. RATIONALE: If compliance achieved through item a-b, there should be no need for acceptance from Competent Authority.</p>
response	<p>Accepted</p> <p>The relevant AMC has been replaced, taking also into account the proposed changes to the relevant rule, in a manner that facilitates the development of a framework that allows the effective assessment of language proficiency.</p>
comment	<p>1784 comment by: <i>UAF (Union des Aéroports Français)</i></p> <p>UAF fully support ACI E comment#1207</p>
response	<p>Noted</p> <p>Please refer to the reply to comment No 1207.</p>
comment	<p>1819 comment by: <i>SinaJobstHAM</i></p> <p>Die Überprüfung der Sprachkompetenz ist nur mit erheblichem administrativen, personellen und/oder finanziellen Ressourcen darstellbar. Der Großteil der Fahrer sind Muttersprachler der festgelegten Sprache, hier würde die Prüfung ein reinen administrativen Mehraufwand bedeuten mit keinerlei Erhöhung des Sicherheitsniveaus. Die Ausbildung und die Tätigkeit der Assessoren kommt bei dem Thema Ressourcenbindung noch on Top.</p>
response	<p>Noted</p> <p>EASA has the view that there is a clear safety benefit related to the development of a framework for language proficiency of personnel operating in the manoeuvring area. Please refer to the rationale of the proposal and the content of ICAO State Letter 25/2018.</p> <p>Please note that the assessment of the language proficiency covers also persons that need to communicate in a language other than their mother tongue, while the intent is also to ensure a person's capability to use standard phraseology, as well as plain language, in usual and unusual situations, at the required level in all languages necessary.</p>



comment	1847	comment by: Gatwick Airport
	No comment	
response	Noted	

AMC5 ADR.OPS.B.025(b) Authorisation of vehicle drivers

p. 127-128

comment	95	comment by: Aerodrome safety regulation departement
	Where the aerodrome operator entrusts driver training to another entity, he keeps the responsibility of the training programme and sets up an audit programme. Isn't there a risk that the role given to the aerodrome operator by this AMC could conflict with the State supervision provided for in Article 62 d) R EU 1139/2018 with regards to ground handling assistants? How will this surveillance be structured?	
response	Noted	
	The AMC has been deleted, following the deletion of the relevant proposed rule.	

comment	317	comment by: AEROPORTI DI ROMA
	Once an agreement is defined between the Aerodrome Operator and the third party providing the necessary training to its own employees, and provided that a compliance monitoring activity is performed to check the respect of the agreement by the third party, a doubling of the record keeping process could be redundant. The requirement should be modified in order to be not too binding, and clarifying that the agreement between the aerodrome operator and the third party should detail the record keeping process responsibility.	
response	Noted	
	The AMC has been deleted, following the deletion of the relevant proposed rule.	

comment	419	comment by: Federal Ministry of Transport Germany, Aerodrome Department
	Diese Vorgabe sollte aufgrund ihres Risikos für die Sicherheit des Flugplatzbetriebes analog der zugehörigen IR gestrichen werden. Siehe hierzu auch Anmerkungen zu ADR.OPS.B.025	
response	Noted	

comment	810	comment by: Assaeroporti - Associazione Italiana Gestori Aeroporti
	NPA Content: (b) In case the aerodrome operator agrees with an organisation operating or providing services at the aerodrome that the latter will provide the necessary training to its own employees, the aerodrome operator should ensure, through an	



	<p>appropriate mechanism, that the relevant records are forwarded to the appropriate organisational unit of the aerodrome operator prior to and following the issuance of a driving authorisation.</p> <p>Comment: Once an agreement is defined between the Aerodrome Operator and the third party providing the necessary training to its own employees, and provided that a compliance monitoring activity is performed to check the respect of the agreement by the third party, a doubling of the record keeping process could be redundant. The requirement should be modified in order to be not too binding, and clarifying that the agreement between the aerodrome operator and the third party should detail the record keeping process responsibility.</p>
response	<p>Noted</p> <p>The AMC has been deleted, following the deletion of the relevant proposed rule.</p>
comment	<p>911 ❖ comment by: <i>ADV - German Airports Association</i></p> <p>ADV specifically supports ACI Europe's objection to all AMCs to ADR.OPS.B.025.</p> <p>They add additional burden to aerodrome operators for no clear benefit. Many provisions are not considering the operational setup and division of responsibilities at aerodromes. Many are clearly not proportionate to the size and complexity of the aerodromes. The provisions should be rewritten in collaboration with stakeholders and moved to GM. Airports may still submit detailed comments of particular importance to them.</p>
response	<p>Noted</p> <p>EASA has the view that there is a safety benefit related to the standardisation of the training areas and the relevant training procedures, which allow the necessary flexibility. Please refer to the rationale of the proposal and the content of ICAO State Letter 25/2018.</p>
comment	<p>920 comment by: <i>Aleksandar Ilkovski</i></p> <p>AMC5 ADR.OPS.B.025(b)(a)&(b): Could the contracted organisation do the assessment as well, need to be clarified? Who appoints the assessor, is it the aerodrome operator or the contracted organisation?</p>
response	<p>Noted</p> <p>The AMC has been deleted, following the deletion of the relevant proposed rule.</p>
comment	<p>1100 comment by: <i>SAS</i></p> <p>Supported</p>



response	Noted EASA would like to thank you for your support regarding the proposed changes.	
comment	1284	comment by: <i>Swedish Transport Agency</i>
	Supported.	
response	Noted EASA would like to thank you for your support regarding the proposed changes.	
comment	1606	comment by: <i>Danish Transport, Construction and Housing Authority</i>
	Supported	
response	Noted EASA would like to thank you for your support regarding the proposed changes.	
comment	1850	comment by: <i>Gatwick Airport</i>
	No comment	
response	Noted	
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comment	326	comment by: <i>John Hamshare (Heathrow)</i>
	Page 128 – GM2 ADR OPS.B.025(b) No, the driving authorisation can be issued by the training company, it does not have to be issued by the ADR OPR directly. There must be agreements in place, approved by CAA, to training set by ADR OPR but the permit can be issued by the company.	
response	Noted It is the aerodrome that is responsible for the authorisation of the drivers, according to the proposed requirement.	
comment	420	comment by: <i>Federal Ministry of Transport Germany, Aerodrome Department</i>
	Diese Vorgabe sollte aufgrund ihres Risikos für die Sicherheit des Flugplatzbetriebes analog der zugehörigen IR gestrichen werden. Siehe hierzu auch Anmerkungen zu ADR.OPS.B.025	
response	Noted	

comment	1101	comment by: SAS
	Supported	
response	Noted	
	EASA would like to thank you for your support regarding the proposed changes.	
comment	1201	comment by: Gatwick Airport
	No comment	
response	Noted	
comment	1285	comment by: Swedish Transport Agency
	Supported.	
response	Noted	
	EASA would like to thank you for your support regarding the proposed changes.	

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comment	421	comment by: Federal Ministry of Transport Germany, Aerodrome Department
	Die Unterscheidung zwischen Recurrent Training und Refresher Training sollte ins GM verlegt werden. Dies sollte ins Konzept des jeweiligen Flugplatzes passen und dem Flugplatzbetreiber selbst überlassen werden.	
response	Noted	
	The proposed provisions make specific reference to recurrent and refresher training. Therefore, there is a need to distinguish the content of these two types of training in a manner that ensures harmonisation when it comes to implementation. In any case, the content of the training is to be developed by the individual aerodrome operators.	
comment	911 ❖	comment by: ADV - German Airports Association
	ADV specifically supports ACI Europe's objection to all AMCs to ADR.OPS.B.025.	
	They add additional burden to aerodrome operators for no clear benefit. Many provisions are not considering the operational setup and division of responsibilities at aerodromes. Many are clearly not proportionate to the size and complexity of the aerodromes. The provisions should be rewritten in collaboration with stakeholders and moved to GM. Airports may still submit detailed comments of particular importance to them.	



response	Noted EASA has the view that there is a safety benefit related to the standardisation of the training areas and the relevant training procedures, which allow the necessary flexibility. Please refer to the rationale of the proposal and the content of ICAO State Letter 25/2018.
comment	1102 comment by: SAS Supported
response	Noted EASA would like to thank you for your support regarding the proposed changes.
comment	1202 comment by: Gatwick Airport No comment
response	Noted
comment	1208 comment by: ACI Europe ACI EUROPE objects to the AMCs on Autorisation of vehicle drivers. They add additional burden to aerodrome operators for no clear benefit. Many provisions are not considering the operational setup and division of responsibilities at aerodromes. Many are clearly not proportionate to the size and complexity of the aerodromes. The provisions should be rewritten in collaboration with stakeholders and moved to GM. Airports may still submit detailed comments of particular importance to them.
response	Noted EASA has the view that there is a safety benefit related to the standardisation of the training areas and the relevant training procedures, which allow the necessary flexibility. Please refer to the rationale of the proposal and the content of ICAO State Letter 25/2018.
comment	1286 comment by: Swedish Transport Agency Supported.
response	Noted EASA would like to thank you for your support regarding the proposed changes.
comment	1787 comment by: UAF (Union des Aéroports Français) UAF fully support ACI E comment#1208



response Noted
Please refer to the reply to comment No 1208.

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comment 1103 comment by: SAS
Supported

response Noted
EASA would like to thank you for your support regarding the proposed changes.

comment 1203 comment by: Gatwick Airport
If there is to reference to the holder's rights there should also be reference tho the holder's responsibilities.

response Noted

comment 1287 comment by: Swedish Transport Agency
Supported.

response Noted
EASA would like to thank you for your support regarding the proposed changes.

comment 1639 comment by: Brussels Airport Company
Other formats allowed? Here the rulemaker only specify physical items, whereas this can be in an electronic form.

Proposal to widen the possibilities

response Noted
The proposed solution is just one of the various solutions that may be implemented.

AMC1 ADR.OPS.B.025(h) Authorisation of vehicle drivers

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comment 327 comment by: John Hamshare (Heathrow)
Page 129 AMC1 ADR.OPS.B.025(h) – the escort of a driver given a temporary permit – the escort can be provided by anyone with the appropriate authorisation, not just the airport operator.



response	<p>Noted</p> <p>It is the aerodrome operator that authorises the use of the vehicles at the aerodrome and has the relevant responsibility. This responsibility may of course, under the existing provisions (ADR.OR.D.010), be discharged through a contracted organisation which provides relevant services to the aerodrome operator. However, this may not be the case for other organisations operating or providing services at the aerodrome.</p>
comment	<p>840 comment by: <i>Aena Aeropuertos, S.A.</i></p> <p>* Escorting vehicles exclusively by the aerodrome operator can be excessively restrictive. Especially in the case of works, the contractor must be allowed to do this function using properly trained drivers or guides.</p>
response	<p>Noted</p> <p>It is the aerodrome operator that authorises the use of the vehicles at the aerodrome and has the relevant responsibility. This responsibility may of course, under the existing provisions (ADR.OR.D.010), be discharged through a contracted organisation which provides relevant services to the aerodrome operator. The example provided in the comment is an example of such a contracted activity, which may be implemented under the relevant framework. However, this may not be the case for other organisations operating or providing services at the aerodrome.</p>
comment	<p>911 ❖ comment by: <i>ADV - German Airports Association</i></p> <p>ADV specifically supports ACI Europe's objection to all AMCs to ADR.OPS.B.025.</p> <p>They add additional burden to aerodrome operators for no clear benefit. Many provisions are not considering the operational setup and division of responsibilities at aerodromes. Many are clearly not proportionate to the size and complexity of the aerodromes. The provisions should be rewritten in collaboration with stakeholders and moved to GM. Airports may still submit detailed comments of particular importance to them.</p>
response	<p>Noted</p> <p>EASA has the view that there is a safety benefit related to the standardisation of the training areas and the relevant training procedures, which allow the necessary flexibility. Please refer to the rationale of the proposal and the content of ICAO State Letter 25/2018.</p>
comment	<p>1019 comment by: <i>Flughafen Berlin Brandenburg GmbH</i></p> <p>Proposal for amended wording: The escort of a vehicle whose driver has been issued a temporary driving permit should only be performed by the aerodrome operator suitable trained staff.</p>



response	<p>Rationale: If trained according to the required standards, staff of third parties is capable to escort other vehicles – especially in low risk areas airside. (E.g. marked service roads without taxi lane crossings.)</p> <p>Noted</p> <p>It is the aerodrome operator that authorises the use of the vehicles at the aerodrome and has the relevant responsibility. This responsibility may of course, under the existing provisions (ADR.OR.D.010), be discharged through a contracted organisation which provides relevant services to the aerodrome operator. However, this may not be the case for other organisations operating or providing services at the aerodrome.</p>
comment	<p>1104 comment by: SAS</p> <p>Supported</p>
response	<p>Noted</p> <p>EASA would like to thank you for your support regarding the proposed changes.</p>
comment	<p>1209 comment by: ACI Europe</p> <p>ACI EUROPE objects to the AMCs on Autorisation of vehicle drivers. They add additional burden to aerodrome operators for no clear benefit. Many provisions are not considering the operational setup and division of responsibilities at aerodromes. Many are clearly not proportionate to the size and complexity of the aerodromes. The provisions should be rewritten in collaboration with stakeholders and moved to GM. Airports may still submit detailed comments of particular importance to them.</p>
response	<p>Noted</p> <p>EASA has the view that there is a safety benefit related to the standardisation of the training areas and the relevant training procedures, which allow the necessary flexibility. Please refer to the rationale of the proposal and the content of ICAO State Letter 25/2018.</p>
comment	<p>1249 comment by: Gatwick Airport</p> <p>The restriction for escorting to be performed only by the aerodrome operator is unlikely to be possible without significant operational impact and distraction from safety critical operational tasks during periods of high demand such as winter operations. For example, the removal of snow is performed by multiple temporarily permitted drivers and vehicles which are currently escorted by trained 3rd party drivers with airside driving experience.</p>
response	<p>Noted</p> <p>It is the aerodrome operator that authorises the use of the vehicles at the aerodrome and has the relevant responsibility. This responsibility may of course, under the</p>



existing provisions (ADR.OR.D.010), be discharged through a contracted organisation which provides relevant services to the aerodrome operator.

The example provided in the comment is considered to be a contracted activity, which may be implemented under the relevant framework. However, this may not be the case for other organisations operating or providing services at the aerodrome.

comment 1288 comment by: Swedish Transport Agency
Supported.

response Noted
EASA would like to thank you for your support regarding the proposed changes.

comment 1496 comment by: Andreas Herndler, CAA Austria
Escorting of vehicles must not be limited to the aerodrome operator.

Therefore following adjustments are suggested:

When permitting temporarily the driving of a vehicle, the period for which the permit is valid ~~and the areas in which the driver will be allowed to operate under escort~~ should be specified. The escort of a vehicle whose driver has been issued a temporary driving permit should only be performed by drivers authorised from the aerodrome operator ~~by the aerodrome operator.~~

response Noted
It is the aerodrome operator that authorises the use of the vehicles at the aerodrome and has the relevant responsibility. This responsibility may of course, under the existing provisions (ADR.OR.D.010), be discharged through a contracted organisation which provides relevant services to the aerodrome operator. However, this may not be the case for other organisations operating or providing services at the aerodrome.

comment 1531 comment by: F. Ehmoser

When permitting temporarily the driving of a vehicle, the period for which the permit is valid ~~and the areas in which the driver will be allowed to operate under escort~~ should be specified. The escort of a vehicle whose driver has been issued a temporary driving permit should only be performed **by drivers authorised from the aerodrome operator** ~~by the aerodrome operator.~~

Specification of areas in which the driver will be allowed to operate under escort is not necessary, as the driver will only operate under escort furthermore escorting must not be limited to the aerodrome operator



response Noted

It is the aerodrome operator that authorises the use of the vehicles at the aerodrome and has the relevant responsibility. This responsibility may of course, under the existing provisions (ADR.OR.D.010), be discharged through a contracted organisation which provides relevant services to the aerodrome operator. However, this may not be the case for other organisations operating or providing services at the aerodrome. The areas of operation need to be known.

comment 1644 comment by: *Brussels Airport Company*

Huge impact on aerodrome operator staffing.
Proposal: delegation of tasking to an approved body / subcontractor
'... by the aerodrome operator or his approved subcontractor.'

response Noted

It is the aerodrome operator that authorises the use of the vehicles at the aerodrome and has the relevant responsibility. This responsibility may of course, under the existing provisions (ADR.OR.D.010), be discharged through a contracted organisation which provides relevant services to the aerodrome operator. However, this may not be the case for other organisations operating or providing services at the aerodrome.

comment 1788 comment by: *UAF (Union des Aéroports Français)*

UAF fully support ACI E comment#1209

response Noted

Please refer to the reply to comment No 1209.

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comment 1105 comment by: *SAS*

Supported

response Noted

EASA would like to thank you for your support regarding the proposed changes.

comment 1250 comment by: *Gatwick Airport*

No comment

response Noted



comment	1289	comment by: <i>Swedish Transport Agency</i>
	Supported.	
response	Noted	
	EASA would like to thank you for your support regarding the proposed changes.	
comment	1555	comment by: <i>Graz Airport</i>
	<p>When permitting temporarily the driving of a vehicle, the period for which the permit is valid and the areas in which the driver will be allowed to operate under escort should be specified.</p> <p>The escort of a vehicle whose driver has been issued a temporary driving permit should only be performed by drivers authorised from the aerodrome operator by the aerodrome operator.</p> <p>Escorting of vehicles must not be limited to the aerodrome operator</p>	
response	Noted	
	<p>It is the aerodrome operator that authorises the use of the vehicles at the aerodrome and has the relevant responsibility. This responsibility may of course, under the existing provisions (ADR.OR.D.010), be discharged through a contracted organisation which provides relevant services to the aerodrome operator. However, this may not be the case for other organisations operating or providing services at the aerodrome. The areas of operation need to be known.</p>	

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comment	911 ❖	comment by: <i>ADV - German Airports Association</i>
	<p>ADV specifically supports ACI Europe's objection to all AMCs to ADR.OPS.B.025.</p> <p>They add additional burden to aerodrome operators for no clear benefit. Many provisions are not considering the operational setup and division of responsibilities at aerodromes. Many are clearly not proportionate to the size and complexity of the aerodromes. The provisions should be rewritten in collaboration with stakeholders and moved to GM. Airports may still submit detailed comments of particular importance to them.</p>	
response	Noted	
	<p>EASA has the view that there is a safety benefit related to the standardisation of the training areas and the relevant training procedures, which allow the necessary</p>	



flexibility. Please refer to the rationale of the proposal and the content of ICAO State Letter 25/2018.

comment 1017 comment by: *Flughafen Berlin Brandenburg GmbH*

Please clarify what requirements come with a "controlled activity".

response Noted

The text has the normal dictionary meaning.

comment 1106 comment by: *SAS*

Supported

response Noted

EASA would like to thank you for your support regarding the proposed changes.

comment 1210 comment by: *ACI Europe*

ACI EUROPE objects to the AMCs on Autorisation of vehicle drivers. They add additional burden to aerodrome operators for no clear benefit. Many provisions are not considering the operational setup and division of responsibilities at aerodromes. Many are clearly not proportionate to the size and complexity of the aerodromes. The provisions should be rewritten in collaboration with stakeholders and moved to GM. Airports may still submit detailed comments of particular importance to them.

response Noted

EASA has the view that there is a safety benefit related to the standardisation of the training areas and the relevant training procedures, which allow the necessary flexibility. Please refer to the rationale of the proposal and the content of ICAO State Letter 25/2018.

comment 1251 comment by: *Gatwick Airport*

No comment

response Noted

comment 1290 comment by: *Swedish Transport Agency*

Supported.

response Noted

EASA would like to thank you for your support regarding the proposed changes.



comment	1650	comment by: <i>Brussels Airport Company</i>
	Following the rationale as mentioned in the NPA itself (it should be seen as a “means to support”), therefor we propose to relocate the AMC to GM section.	
response	Noted Guidance material is also provided wherever necessary.	
comment	1789	comment by: <i>UAF (Union des Aéroports Français)</i>
	UAF fully support ACI E comment#1210	
response	Noted Please refer to the reply to comment No 1210.	

AMC1 ADR.OPS.B.026(a)(1);(3) Authorisation of vehicles

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comment	658	comment by: <i>CAA Norway</i>
	AMCs and GMs to ADR.OPS.B.026 Authorisation of vehicles (ALL) COMMENT: Supported.	
response	Noted EASA would like to thank you for your support regarding the proposed changes.	
comment	922	comment by: <i>Aleksandar Ilkovski</i>
	ADR.OPS.B.026(a)(1);(3)(a) : Swedavias opinion is that it should only be mandatory for manoeuvring area. Do baggage trucks that only move on ramp areas need a hot-spot chart? EAPRI also recommend manoeuvring area.	
response	Accepted The text has been amended in a manner that takes into account the need to improve the situational awareness of the drivers that will not be operating on the manoeuvring area.	
comment	927	comment by: <i>ADV - German Airports Association</i>
	ADV specifically supports ACI Europe's objection to all Soft Law to ADR.OPS.B.026. They add additional burden to aerodrome operators for no clear benefit. Many provisions are not considering the operational setup and division of responsibilities	



	<p>at aerodromes. Many are clearly not proportionate to the size and complexity of the aerodromes. The provisions should be rewritten in collaboration with stakeholders and moved to GM. Airports may still submit detailed comments of particular importance to them.</p>
response	<p>Noted</p> <p>The organisational setup of an aerodrome operator and the complexity of an aerodrome are not related to the equipment that a vehicle needs to have in order to improve the situational awareness of the drivers. Please refer to the rationale of the proposal. The AMC has been reviewed and where necessary amended.</p>
comment	<p>1107 comment by: SAS</p> <p>Supported</p>
response	<p>Noted</p> <p>EASA would like to thank you for your support regarding the proposed changes.</p>
comment	<p>1211 comment by: ACI Europe</p> <p>ACI EUROPE objects to the AMCs on Autorisation of vehicles. They add additional burden to aerodrome operators for no clear benefit. Many provisions are not considering the operational setup and division of responsibilities at aerodromes. Many are clearly not proportionate to the size and complexity of the aerodromes. The provisions should be rewritten in collaboration with stakeholders and moved to GM. Airports may still submit detailed comments of particular importance to them.</p>
response	<p>Noted</p> <p>The organisational setup of an aerodrome operator and the complexity of an aerodrome are not related to the equipment that a vehicle needs to have in order to improve the situational awareness of the drivers. Please refer to the rationale of the proposal. The AMC has been reviewed and where necessary amended.</p>
comment	<p>1252 comment by: Gatwick Airport</p> <p>No comment</p>
response	<p>Noted</p>
comment	<p>1291 comment by: Swedish Transport Agency</p> <p>Supported.</p>
response	<p>Noted</p> <p>EASA would like to thank you for your support regarding the proposed changes.</p>



comment	<p>1499 comment by: <i>Andreas Herndler, CAA Austria</i></p> <p>Manouvering should be sufficient.</p> <p>Therefore following adjustments are suggested:</p> <p>An updated copy of the movement area chart of sufficient size, including Hot Spots, as well the visual aids configuration on the aerodrome, and areas to be safeguarded, should be readily available in the driver’s cabin when driving on the manouvering areas.</p>
response	<p>Accepted</p> <p>The text has been amended in a manner that takes into account the need to improve the situational awareness of the drivers that will not be operating on the manoeuvring area.</p>
comment	<p>1534 comment by: <i>F. Ehmoser</i></p> <p>An updated copy of the movement area chart of sufficient size, including Hot Spots, as well the visual aids configuration on the aerodrome, and areas to be safeguarded, should be readily available in the driver’s cabin when driving on the manouvering areas</p> <p><i>Manouvering area is sufficient</i></p>
response	<p>Accepted</p> <p>The text has been amended in a manner that takes into account the need to improve the situational awareness of the drivers that will not be operating on the manoeuvring area.</p>
comment	<p>1557 comment by: <i>Graz Airport</i></p> <div style="border: 1px solid black; padding: 5px; margin: 5px 0;"> <p>An updated copy of the movement area chart of sufficient size, including Hot Spots, as well the visual aids configuration on the aerodrome, and areas to be safeguarded, should be readily available in the driver’s cabin when driving on the manouvering areas</p> </div> <div style="border: 1px solid black; padding: 5px; margin: 5px 0;"> <p>Manouvering area is sufficient</p> </div>
response	<p>Accepted</p>

The text has been amended in a manner that takes into account the need to improve the situational awareness of the drivers that will not be operating on the manoeuvring area.

comment	1654	comment by: <i>Brussels Airport Company</i>
	Following the rationale (“addressing recommendations”), proposal to relocate the AMC to GM section.	
response	Noted	

comment	1790	comment by: <i>UAF (Union des Aéroports Français)</i>
	UAF fully support ACI E comment#1211	
response	Noted	
	Please refer to the reply to comment No 1211.	

comment	1874	comment by: <i>Danish Transport, Construction and Housing Authority</i>
	Support all AMC and GM to AMC1.ADR.OPS.B.026	
response	Noted	
	EASA would like to thank you for your support regarding the proposed changes.	

GM1 ADR.OPS.B.026(b) Authorisation of vehicles

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comment	470	comment by: <i>European Powered Flying Union</i>
	GM1 ADR.OPS.B.026(b) Authorisation of vehicles Limiting the number of vehicles p 131/207	
	Please delete this GM.	
	Rationale This provision is not useful nor helpful.	
	Questions Who would you entitle to limit what kind of vehicles? Based on what such limitations would be put in place?	



response	Not accepted Please refer to the relevant proposed requirement, which foresees the limitation of vehicles at the aerodrome.
comment	534 comment by: ISAVIA ohf. Vehicles on the maneuvering area should be limited to those necessary, especially on the runway. Vehicles allowed to operate on the runway should include only these necessary for aerodrome operational activities such as inspections and maintenance, and emergency vehicles. It is strongly advised against increasing runway use by other vehicles such as those involved in ground operations, such as aircraft towing, etc. unless there is no alternative route.
response	Accepted The text has been amended in the suggested direction.
comment	927 ❖ comment by: ADV - German Airports Association ADV specifically supports ACI Europe's objection to all Soft Law to ADR.OPS.B.026. They add additional burden to aerodrome operators for no clear benefit. Many provisions are not considering the operational setup and division of responsibilities at aerodromes. Many are clearly not proportionate to the size and complexity of the aerodromes. The provisions should be rewritten in collaboration with stakeholders and moved to GM. Airports may still submit detailed comments of particular importance to them.
response	Noted
comment	1108 comment by: SAS Supported
response	Noted EASA would like to thank you for your support regarding the proposed changes.
comment	1253 comment by: Gatwick Airport Excessive words? The use of 'should try' is probably not required. 'should' would be sufficient. Could this GM be more succinct and limited to the first paragraph only?
response	Partially accepted



The text has been reworded where possible. However, given that the purpose of this text is to provide guidance for the implementation of the relevant requirement, EASA considers that it is helpful to maintain the remaining text.

comment	1292	comment by: <i>Swedish Transport Agency</i>
	Supported.	
response	Noted	
	EASA would like to thank you for your support regarding the proposed changes.	

AMC1 ADR.OPS.B.026(c)(1) Authorisation of vehicles

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comment	927 ❖	comment by: <i>ADV - German Airports Association</i>
	ADV specifically supports ACI Europe's objection to all Soft Law to ADR.OPS.B.026.	
	They add additional burden to aerodrome operators for no clear benefit. Many provisions are not considering the operational setup and division of responsibilities at aerodromes. Many are clearly not proportionate to the size and complexity of the aerodromes. The provisions should be rewritten in collaboration with stakeholders and moved to GM. Airports may still submit detailed comments of particular importance to them.	
response	Noted	

comment	1109	comment by: <i>SAS</i>
	Supported	
response	Noted	
	EASA would like to thank you for your support regarding the proposed changes.	

comment	1212	comment by: <i>ACI Europe</i>
	ACI EUROPE objects to the AMCs on Autorisation of vehicles. They add additional burden to aerodrome operators for no clear benefit. Many provisions are not considering the operational setup and division of responsibilities at aerodromes. Many are clearly not proportionate to the size and complexity of the aerodromes. The provisions should be rewritten in collaboration with stakeholders and moved to GM. Airports may still submit detailed comments of particular importance to them.	
response	Noted	
	The AMC has been reviewed and where necessary amended.	



comment	1254	comment by: <i>Gatwick Airport</i>
	No comment	
response	Noted	
comment	1293	comment by: <i>Swedish Transport Agency</i>
	Supported.	
response	Noted EASA would like to thank you for your support regarding the proposed changes.	
comment	1656	comment by: <i>Brussels Airport Company</i>
	What is 'prominent'? Inside the vehicle? E.g. scissor lift or conveyer belt? Why limit to physical authorisations? Proposal to move to GM if this is not rewritten.	
response	Partially accepted The text has been amended in the suggested direction.	
comment	1791	comment by: <i>UAF (Union des Aéroports Français)</i>
	UAF fully support ACI E comment#1212	
response	Noted Please refer to the reply to comment No 1212.	

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comment	927 ❖	comment by: <i>ADV - German Airports Association</i>
	ADV specifically supports ACI Europe's objection to all Soft Law to ADR.OPS.B.026. They add additional burden to aerodrome operators for no clear benefit. Many provisions are not considering the operational setup and division of responsibilities at aerodromes. Many are clearly not proportionate to the size and complexity of the aerodromes. The provisions should be rewritten in collaboration with stakeholders and moved to GM. Airports may still submit detailed comments of particular importance to them.	
response	Noted	



comment	1110 Supported	comment by: SAS
response	Noted EASA would like to thank you for your support regarding the proposed changes.	
comment	1255 No comment	comment by: Gatwick Airport
response	Noted	
comment	1294 Supported.	comment by: Swedish Transport Agency
response	Noted EASA would like to thank you for your support regarding the proposed changes.	

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comment	422	comment by: <i>Federal Ministry of Transport Germany, Aerodrome Department</i>
	<p>Wenn ein Fahrzeug auf das Rollfeld/Vorfeld gelotst wird, ist es unseres Erachtens ausreichend, wenn das lotsende Fahrzeug mit Funk und Transponder ausgestattet ist und über die geforderten Markierungen und Beleuchtungseinrichtungen verfügt. Insbesondere da es auch um ein einmaliges Einfahren geht (z.B. von Lichtmesswagen oder Prüfwagen, Organtransporte), ist eine entsprechende Handhabung erforderlich.</p> <p>Hinsichtlich der Überprüfung des amtlichen / staatlichen Führerscheines, ist zu prüfen, in wie fern der Flugplatzbetreiber dazu berechtigt ist.</p> <p>Hinsichtlich der Prüfung der Wartungsintervalle siehe Anmerkungen zu ADR.OPS.B.026 hinsichtlich staatlich anerkannter Prüfstellen.</p>	
response	Noted The proposed text, which has been amended, provides guidance on the implementation of the relevant requirements which have also been amended to improve readability.	
comment	927 ❖	comment by: <i>ADV - German Airports Association</i>
	ADV specifically supports ACI Europe's objection to all Soft Law to ADR.OPS.B.026.	



		<p>They add additional burden to aerodrome operators for no clear benefit. Many provisions are not considering the operational setup and division of responsibilities at aerodromes. Many are clearly not proportionate to the size and complexity of the aerodromes. The provisions should be rewritten in collaboration with stakeholders and moved to GM. Airports may still submit detailed comments of particular importance to them.</p>
response	Noted	<p>The organisational setup of an aerodrome operator and the complexity of an aerodrome are not related to the way that a vehicle may be temporarily allowed to operate to an aerodrome. Please refer to the rationale of the proposal.</p>
comment	1111	comment by: SAS
	Supported	
response	Noted	<p>EASA would like to thank you for your support regarding the proposed changes.</p>
comment	1256	comment by: Gatwick Airport
	<p>Not very succinct and needs to be read a number of times before fully understanding the guidance for example 'if the vehicle will not be operated on the manoeuvring area, then apart from determining its serviceability, such a vehicle needs to be escorted by a vehicle equipped with a radio, in accordance with ADR.OPS.B.026 (d)(2), if in the areas where it is going to operate vehicles are required to be equipped with a radio'. Could this be written 'Vehicles without suitable radio equipment operating in areas where radio equipment is required must be escorted by a vehicle equipped with a radio in accordance with ADR.OPS.B.026 (d)(2)'. Reference to determining vehicle serviceability is unnecessary as it has been stated in the previous paragraph.</p>	
response	Accepted	<p>The text has been reviewed and amended where needed.</p>
comment	1295	comment by: Swedish Transport Agency
	Supported.	
response	Noted	<p>EASA would like to thank you for your support regarding the proposed changes.</p>



comment	232	comment by: <i>Jan Loncke</i>
	typo in 2nd alinea : plural of 'aircraft' is 'aircraft'	
response	Accepted The text has been amended.	
comment	927 ❖	comment by: <i>ADV - German Airports Association</i>
	ADV specifically supports ACI Europe's objection to all Soft Law to ADR.OPS.B.026. They add additional burden to aerodrome operators for no clear benefit. Many provisions are not considering the operational setup and division of responsibilities at aerodromes. Many are clearly not proportionate to the size and complexity of the aerodromes. The provisions should be rewritten in collaboration with stakeholders and moved to GM. Airports may still submit detailed comments of particular importance to them.	
response	Noted The organisational setup of an aerodrome operator and the complexity of an aerodrome are not related to the way that a vehicle's call sign needs to be attributed. Please refer to the rationale of the proposal.	
comment	1112	comment by: <i>SAS</i>
	Supported	
response	Noted EASA would like to thank you for your support regarding the proposed changes.	
comment	1257	comment by: <i>Gatwick Airport</i>
	No comment	
response	Noted	
comment	1296	comment by: <i>Swedish Transport Agency</i>
	Supported.	
response	Noted EASA would like to thank you for your support regarding the proposed changes.	

comment	<p>423 comment by: <i>Federal Ministry of Transport Germany, Aerodrome Department</i></p> <p>Hinsichtlich der hohen Anforderungen für Personen, die am Funkverkehr auf der Bewegungsfläche teilnehmen (Sprachprüfung etc.) sowie der Maßgabe, dass temporär einfahrende Fahrzeuge keine derartigen Schulungen erfordern, sehen wir es äußerst kritisch, diesen z.T. einmal einfahrenden und gelotsten Fahrzeugen einen Funkrufnamen zuzuweisen und diese mit einem Funkgerät auszustatten. Das damit verbundene Risiko ist viel höher, als wenn nur das lotsende Fahrzeug (mit entsprechend geschultem und qualifiziertem Fahrer) im Lotsenverband mit einem Funkgerät ausgestattet ist. Hier sollten die Vorgaben nochmal angepasst werden, um etwaige Missverständnisse und Fehlinterpretationen hinsichtlich der temporär einfahrenden Fahrzeuge zu vermeiden.</p> <p>Bezüglich der Prüfung der Wartungsintervalle siehe Anmerkungen zu ADR.OPS.B.026 hinsichtlich staatlich anerkannter Prüfstellen.</p>
response	<p>Noted</p> <p>The proposed AMC covers only the procedural aspects necessary from the side of the aerodrome operator for the implementation of the relevant requirement, without dealing with substantial issues.</p>
comment	<p>927 ❖ comment by: <i>ADV - German Airports Association</i></p> <p>ADV specifically supports ACI Europe's objection to all Soft Law to ADR.OPS.B.026.</p> <p>They add additional burdens to aerodrome operators for no clear benefit. Many provisions are not considering the operational setup and division of responsibilities at aerodromes. Many are clearly not proportionate to the size and complexity of the aerodromes. The provisions should be rewritten in collaboration with stakeholders and moved to GM. Airports may still submit detailed comments of particular importance to them.</p>
response	<p>Noted</p>
comment	<p>1113 comment by: <i>SAS</i></p> <p>Supported</p>
response	<p>Noted</p> <p>EASA would like to thank you for your support regarding the proposed changes.</p>
comment	<p>1213 comment by: <i>ACI Europe</i></p> <p>ACI EUROPE objects to the AMCs on Autorisation of vehicles. They add additional burdens to aerodrome operators for no clear benefit. Many provisions are not considering the operational setup and division of responsibilities at aerodromes.</p>

response	<p>Many are clearly not proportionate to the size and complexity of the aerodromes. The provisions should be rewritten in collaboration with stakeholders and moved to GM. Airports may still submit detailed comments of particular importance to them.</p> <p>Noted</p>
comment	<p>1258 comment by: Gatwick Airport</p> <p>No comment</p>
response	<p>Noted</p>
comment	<p>1297 comment by: Swedish Transport Agency</p> <p>Supported.</p>
response	<p>Noted</p> <p>EASA would like to thank you for your support regarding the proposed changes.</p>
comment	<p>1657 comment by: Brussels Airport Company</p> <p>Following the rationale (“general means to support the implementation”), proposal to relocate the AMC to GM section.</p>
response	<p>Noted</p>
comment	<p>1793 comment by: UAF (Union des Aéroports Français)</p> <p>UAF fully support ACI E comment#1213</p>
response	<p>Noted</p> <p>Please refer to the reply to comment No 1213.</p>

GM1 ADR.OPS.B.027(e)(1) Operation of vehicles	p. 134
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comment	<p>381 comment by: Federal Office of Civil Aviation (FOCA), Switzerland</p> <p><i>Comment FOCA on GM1 ADR.OPS.B.027(e)(1): typo</i></p> <p>Proposed new text: OPERATION OF VEHICLES ON RUNWAY RUNWAY STRIPS [...]</p>
response	<p>Accepted</p> <p>The text has been amended.</p>



comment	661	comment by: CAA Norway
	AMCs and GMs to ADR.OPS.B.027 Vehicle operations (ALL)	
	COMMENT: Supported.	
response	Noted	
	EASA would like to thank you for your support regarding the proposed changes.	
comment	927 ❖	comment by: ADV - German Airports Association
	ADV specifically supports ACI Europe's objection to all Soft Law to ADR.OPS.B.026.	
	They add additional burden to aerodrome operators for no clear benefit. Many provisions are not considering the operational setup and division of responsibilities at aerodromes. Many are clearly not proportionate to the size and complexity of the aerodromes. The provisions should be rewritten in collaboration with stakeholders and moved to GM. Airports may still submit detailed comments of particular importance to them.	
response	Noted	
	EASA considers that the organisational setup of an aerodrome operator and the complexity of an aerodrome are not related to the content of the proposed guidance.	
comment	1114	comment by: SAS
	Supported	
response	Noted	
	EASA would like to thank you for your support regarding the proposed changes.	
comment	1259	comment by: Gatwick Airport
	No comment	
response	Noted	
comment	1298	comment by: Swedish Transport Agency
	Supported.	
response	Noted	
	EASA would like to thank you for your support regarding the proposed changes.	
comment	1368	comment by: Andreas Herndler, CAA Austria



Manoeuvring area is defined as part of an aerodrome to be used for take-off, landing and taxiing of aircraft, excluding aprons. Taxiing of aircraft might assume, according to the definition of taxiways, to include aircraft stand taxilanes, apron taxiways and rapid exit taxiways, whereby aircraft stand taxilanes are defined to be a portion of an apron, and apron taxiways to be located on an apron.

Therefore following adjustments are suggested:

GM1 ADR.OPS.B.027 Operation of vehicles

Manoeuvring area according definition 28 to exclude aircraft stand taxilanes according definition 11 and to exclude apron taxiways according definition 14.

response

Noted

EASA considers that the commented definitions do not require further clarification.

comment

1391

comment by: *Graz Airport*

Manoeuvring area according definition 28 to exclude aircraft stand taxilanes according definition 11 and to exclude apron taxiways according definition 14.

Manoeuvring area is defined as part of an aerodrome to be used for take-off, landing and taxiing of aircraft, excluding aprons. Taxiing of aircraft might assume, according to the definition of taxiways, to include aircraft stand taxilanes, apron taxiways and rapid exit taxiways, whereby aircraft stand taxilanes are defined to be a portion of an apron, and apron taxiways to be located on an apron.

response

Noted

EASA considers that the relevant definitions do not require further clarification.

comment

1431

comment by: *CAA Finland*

OPERATION OF VEHICLES ON RUNWAY STRIPS, RESA AND CLEARWAYS

Should be:

OPERATION OF VEHICLES ON RUNWAY STRIPS, RESA AND CLEARWAYS

response

Accepted

The text has been amended.

comment

1875

comment by: *Danish Transport, Construction and Housing Authority*

Support all AMC and GM to AMC1.ADR.OPS.B.027

response

Noted

EASA would like to thank you for your support regarding the proposed changes.

comment	<p>341</p> <p>comment by: <i>Avinor AS</i></p> <p>PROPOSED REVISION:</p> <p>AMC1 ADR.OPS.B.027(h)(2) Operation of vehicles (RMT.0703)</p> <p>DISTURBING AND DISTRACTING ACTIVITIES WHILE DRIVING</p> <p>When driving, a ‘sterile-cab concept’ should be implemented. In line with this, drivers should avoid being involved in non-essential activities that may affect their attention, situational awareness or judgement.</p> <p>Such activities include but are not limited to the following:</p> <p>(a) texting with mobile phones; (b) making or answering phone calls without a hands-free system and subject to a risk assessment; (c) listening to music medias when driving a radio-equipped vehicle; (d) being involved in activities that require the lowering of the radio volume; and (e) non-essential conversations with other persons that are in the driver’s cabin, or over the radio.</p> <p>COMMENT:</p> <p>(b) Hands-free are allowed on public roads today. In vehicles on the manoeuvring area the radio communication with ATS have priority. Hands-free systems should not be introduced unless a risk assessment is completed, identifying risk mitigating measures.</p> <p>(c) Radio is not the only output source for entertainment or other non-essential listening. Write “Media” to cover use of radios, CD-players, smartphones and other sources.</p> <p>RATIONALE:</p> <p>(b) At almost all Avinor airports, inspectors and maintenance personnel on duty are also responsible for answering incoming telephone calls to the airport.</p> <p>(c) There are other medias that should be covered in this provision. Examples: i-pod, Podcast, audiobooks, and other medias on hand-held devices.</p>
response	<p>Partially accepted</p> <p>This AMC provides a non-exhaustive list of common activities that would lead to the distraction of drivers. The aerodrome operator may identify additional sources of distraction/interference with a driver’s tasks. With regard to the proposed addition, please note that the intent of the relevant proposed provision, and of course the AMC, is to avoid distraction/interference with the driver’s tasks which, except of the driving itself, include maintaining ‘... a continuous listening watch on the assigned frequency when on the movement area’. Please also note that this AMC applies ‘while driving’.</p>
comment	<p>424</p> <p>comment by: <i>Federal Ministry of Transport Germany, Aerodrome Department</i></p> <p>Neu verwendete Begriffe, die nicht allgemein bekannt sind, wie „sterilecab concept“ sollten erläutert werden.</p>

response	<p>Anstelle einer Auflistung von Tätigkeiten, die nicht allumfassend sein kann, wäre es ggf. besser zu schreiben, dass der Funk(verkehr) immer hörbar sein muss und der Fahrer keine Tätigkeiten durchführen darf, die ihn vom Fahren ablenken.</p> <p>Noted</p> <p>The ‘sterile-cab’ concept follows similar principles as the already applicable ‘sterile-cockpit’ concept and has been recommended for many years. The relevant requirement already defines that disturbing and distracting activities have to be avoided, and therefore the AMC aims at providing a non-exhaustive list of common activities that need to be avoided, as they have been found to be causing distraction to the driver’s attention.</p>
comment	<p>662 comment by: CAA Norway</p> <p>AMCs and GMs to ADR.OPS.B.027 Vehicle operations (ALL) COMMENT: Supported.</p>
response	<p>Noted</p> <p>EASA would like to thank you for your support regarding the proposed changes.</p>
comment	<p>924 comment by: Aleksandar Ilkovski</p> <p>AMC1 ADR.OPS.B.027(h)(2)(b): Not all operations have radio and need to be able to use phones. Hands-free or push-to-talk should be allowed. Should be allowed only for on-duty calls and not for private purposes.</p>
response	<p>Not accepted</p> <p>This AMC provides a non-exhaustive list of common activities that would lead to the distraction of drivers. With regard to the proposed addition, please note that the intent of the relevant proposed provision, and of course the AMC, is to avoid distraction/interference with the driver’s tasks which, except of the driving itself, include maintaining ‘... a continuous listening watch on the assigned frequency when on the movement area’. Please also note that this AMC applies ‘while driving’.</p>
comment	<p>927 ❖ comment by: ADV - German Airports Association</p> <p>ADV specifically supports ACI Europe’s objection to all Soft Law to ADR.OPS.B.026.</p> <p>They add additional burden to aerodrome operators for no clear benefit. Many provisions are not considering the operational setup and division of responsibilities at aerodromes. Many are clearly not proportionate to the size and complexity of the aerodromes. The provisions should be rewritten in collaboration with stakeholders and moved to GM. Airports may still submit detailed comments of particular importance to them.</p>

response	Noted	
comment	1115	comment by: SAS
	Supported	
response	Noted	
	EASA would like to thank you for your support regarding the proposed changes.	
comment	1260	comment by: Gatwick Airport
	The sterile cab concept should also include a cabin free of loose and distracting articles/items.	
response	Accepted	
	The text has been amended in the suggested direction.	
comment	1299	comment by: Swedish Transport Agency
	Supported.	
response	Noted	
	EASA would like to thank you for your support regarding the proposed changes.	
comment	1504	comment by: Andreas Herndler, CAA Austria
	AMC1 shall be changed to GM. It is in the aerodrome operators responsibility to define and promote forbidden activities.	
	Furthermore following adjustments are suggested:	
	(b) making or answering phone calls without hands-free equipment	
response	Not accepted	
	This AMC provides a non-exhaustive list of common activities that would lead to the distraction of drivers. The aerodrome operator may identify additional sources of distraction/interference with a driver's tasks. With regard to the proposed addition, please note that the intent of the relevant proposed provision, and of course the AMC, is to avoid distraction/interference with the driver's tasks which, except of the driving itself, include maintaining '... a continuous listening watch on the assigned frequency when on the movement area'. Please also note that this AMC applies 'while driving'.	
comment	1545	comment by: F. Ehmoser



response	<p>(b) making or answering phone calls without hands-free equipment (d) being involved in activities that require lowering of the radio volume; and</p> <p>Not accepted</p> <p>This AMC provides a non-exhaustive list of common activities that would lead to the distraction of drivers. The aerodrome operator may identify additional sources of distraction/interference with a driver’s tasks. With regard to the proposed addition, please note that the intent of the relevant proposed provision, and of course the AMC, is to avoid distraction/interference with the driver’s tasks which, except of the driving itself, include maintaining ‘... a continuous listening watch on the assigned frequency when on the movement area’. Please also note that this AMC applies ‘while driving’.</p>
comment	<p>1547 comment by: F. Ehmoser</p> <p>AMC1 shall be changed to GM. It is in the aerodrome operators responsibility to define and promote forbidden activities</p>
response	<p>Not accepted</p> <p>This AMC provides a non-exhaustive list of common activities that would lead to the distraction of drivers. The aerodrome operator may identify additional sources of distraction/interference with a driver’s tasks.</p>
comment	<p>1548 comment by: F. Ehmoser</p> <p>"such activities" ... to be deleted, as there is no possibility of implementation (it just can be promoted)</p>
response	<p>Not accepted</p> <p>This AMC provides a non-exhaustive list of common activities that would lead to the distraction of drivers.</p>
comment	<p>1558 comment by: Graz Airport</p> <div style="border: 1px solid black; padding: 5px; margin: 5px 0;"> <p>(b) making or answering phone calls without hands-free equipment</p> </div> <div style="border: 1px solid black; padding: 5px; margin: 5px 0;"> <p>AMC1 shall be changed to GM. It is in the aerodrome operators responsibility to define and promote forbidden activities</p> </div>
response	<p>Not accepted</p> <p>This AMC provides a non-exhaustive list of common activities that would lead to the distraction of drivers. The aerodrome operator may identify additional sources of</p>



distraction/interference with a driver’s tasks. With regard to the proposed addition, please note that the intent of the relevant proposed provision, and of course the AMC, is to avoid distraction/interference with the driver’s tasks which, except of the driving itself, include maintaining ‘... a continuous listening watch on the assigned frequency when on the movement area’. Please also note that this AMC applies ‘while driving’.

comment	<p>1834 comment by: <i>SinaJobstHAM</i></p> <p>Wir halten es für sinnvoll die Mitarbeiter zum Thema Konzentration, Vermeidung von Ablenkung/Störfaktoren und Situational Awareness zu schulen und zu sensibilisieren. Die geschilderten Anforderungen sind jedoch nicht kontrollierbar. Das Verbot von Gesprächen, anderen als betrieblich notwendigen, geht für uns zu weit. Wir bitten um Streichung des Absatzes (e) und/oder Umwandlung des gesamten Paragraphen in ein GM.</p>
response	<p>Not accepted</p> <p>This AMC provides a non-exhaustive list of common activities that would lead to the distraction of drivers. The aerodrome operator may identify additional sources of distraction/interference with a driver’s tasks. With regard to the proposed addition please note that the intent of the relevant proposed provision, and of course the AMC, is to avoid distraction/interference with the driver’s tasks which, except of the driving itself, include maintaining ‘... a continuous listening watch on the assigned frequency when on the movement area’. Please also note that this AMC applies ‘while driving’.</p>

AMC1 ADR.OPS.B.028 Aircraft towing	p. 135
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comment	<p>342 comment by: <i>Avinor AS</i></p> <p>Avinor support the comment issued by CAA Norway</p>
response	<p>Noted</p> <p>Please refer to the reply to the relevant comment.</p>
comment	<p>663 comment by: <i>CAA Norway</i></p> <p>AMC1 ADR.OPS.B.028 Towing</p> <p>COMMENT: Re item (6) ensuring the display of lights by the aircraft to be towed, at day and night; For this issue there is a GM1 referring to SERA.3215.</p>



There is a definitive need for an alternate means to identify aircraft being towed in case the aircraft lights cannot be displayed during towing.

For large aircraft, displaying aircraft lights may require electrical power from either the APU or an external source.

If the APU is used, that would normally require a qualified person in the cockpit, and an amount of fuel is also used. As an example, at Oslo Airport Gardermoen, more than 10.000 towing operations is conducted pr year, each consuming an average of 40 l fuel. This equates to more than 400.000 l of fuel pr year.

For both environmental and staffing reasons, this should clearly be avoided. Trials with GPUs mounted on the towing vehicles have showed that it is difficult for these units to provide electrical power which is accepted by the aircraft.

Assuming that the reason for the requirement is to make the aircraft clearly visible to other operators on the movement area, and other who need to see it, for example ATS, it should be possible to achieve the same, or better results by floodlighting the aircraft.

This could be done by having the necessary lights mounted on the tow truck.

It could be possible to have one side lighted red and the other green, if this is deemed necessary.

The tow truck is, of course, assumed to be lighted and marked according to ADR.OPS.B.080.

A key question is if this would require an AMC to SERA, or if it is sufficient to have an AMC to ADR.OPS.B.080 (c) or an expanded GM1 to ADR.OPS.B.028 LIGHTS TO BE USED DURING TOWING.

NOTE: We understand that EASA has started an investigation to this issue, as it is an issue affecting numerous aerodromes.

response

Noted

The lights to be displayed by aircraft is an issue already regulated in SERA.3215 to which the proposed rules refer.

EASA recognises the need to address this issue in a manner that takes into account employed practices and current technological evolutions, as well as the provisions of ICAO Annex 2, while ensuring the required level of standardisation and safety. However, because further assessment is required, EASA will address this issue in the context of the AWO task.

comment

926 comment by: Aleksandar Ilkovski

AMC1 ADR.OPS.B.028 (a)(10):



	<p>EASA should consider a separate certificate process for ground handling activities, in those cases they are not performed by the aerodrome operator compared to apron management.</p> <p>Swedavias opinion is that it should be operator or contracted operators' responsibility. Suggest that responsibility for ground handling to be included in future requirements for ground handling (EPAS 2019-2023)</p>
response	<p>Not accepted</p> <p>EASA does not share the view that the content of the proposed AMC addresses issues that fall under the responsibility of an air operator or its subcontractor.</p>
comment	<p>1116 comment by: SAS</p> <p>Supported</p>
response	<p>Noted</p> <p>EASA would like to thank you for your support regarding the proposed changes.</p>
comment	<p>1214 comment by: ACI Europe</p> <p>For most aerodromes items (a)(2) to (6) and (8) are not an aerodrome operator responsibility, but ANS or ground handling. Should be deleted and incorporated in regulations.for ANS or in furture ground-handling regulations.</p>
response	<p>Not accepted</p> <p>EASA does not share the view that the content of the proposed AMC addresses issues that fall under the responsibility of a groundhandling services provider or the ATS provider.</p>
comment	<p>1261 comment by: Gatwick Airport</p> <p>No comment</p>
response	<p>Noted</p>
comment	<p>1300 comment by: Swedish Transport Agency</p> <p>COMMENT: Re item (6) ensuring the display of lights by the aircraft to be towed, at day and night; For this issue there is a GM1 referring to SERA.3215. See our comment to AMC & GM to The rules of the air.</p> <p>There is a definitive need for an alternate means to identify aircraft being towed in case the aircraft lights cannot be displayed during towing.</p> <p>For large aircraft, displaying aircraft lights may require electrical power from either the APU or an external source.</p> <p>If the APU is used, that would normally require a qualified person in the cockpit, and an amount of fuel is also used. As an example, at Oslo Airport Gardermoen, more</p>



than 10.000 towing operations is conducted pr year, each consuming an average of 40 l fuel. This equates to more than 400.000 l of fuel pr year.

For both environmental and staffing reasons, this should clearly be avoided. Trials with GPUs mounted on the towing vehicles have showed that it is difficult for these units to provide electrical power which is accepted by the aircraft.

Assuming that the reason for the requirement is to make the aircraft clearly visible to other operators on the movement area, and other who need to see it, for example ATS, it should be possible to achieve the same, or better results by floodlighting the aircraft.

This could be done by having the necessary lights mounted on the tow truck.

It could be possible to have one side lighted red and the other green, if this is deemed necessary.

The tow truck is, of course, assumed to be lighted and marked according to ADR.OPS.B.080.

A key question is if this would require an AMC to SERA, or if it is sufficient to have an AMC to ADR.OPS.B.080 (c) or an expanded GM1 to ADR.OPS.B.028 LIGHTS TO BE USED DURING TOWING.

NOTE: We understand that EASA has started an investigate this issue, as it is an issue affecting numerous aerodromes.

response

Noted

The lights to be displayed by aircraft is an issue already regulated in SERA.3215 to which the proposed rules refer.

EASA recognises the need to address this issue in a manner that takes into account employed practices and current technological evolutions, as well as the provisions of ICAO Annex 2, while ensuring the required level of standardisation and safety. However, because further assessment is required, EASA will address this issue in the context of the AWO task.

comment

1434

comment by: CAA Finland

Item (6) states that the display of lights by the aircraft to be towed should be ensured, at day and night.

There is a need for alternate means to identify aircraft being towed in case the aircraft lights cannot be displayed during towing.

To make the aircraft clearly visible to other operators on the movement area, and other who need to see it, it should be possible to achieve the same, or better results by floodlighting the aircraft. These lights could be mounted on the tow truck.

response

Noted

The lights to be displayed by aircraft is an issue already regulated in SERA.3215 to which the proposed rules refer.

EASA recognises the need to address this issue in a manner that takes into account employed practices and current technological evolutions, as well as the provisions of ICAO Annex 2, while ensuring the required level of standardisation and safety.



However, because further assessment is required, EASA will address this issue in the context of the AWO task.

comment 1513 comment by: *Andreas Herndler, CAA Austria*

Strobe light Systems on towbarless towing trucks is used successfully since many years and avoids the need for technician or cockpit crew.

Therefore following adjustments are suggested:

(6) ensuring the display of lights by the aircraft to be towed, at day and night; **or alternatively in case of an unmanned aircraft, ensure that towing vehicles are equipped with additional flashing lights (e.g. strobe light system);**

response Noted

The lights to be displayed by aircraft is an issue already regulated in SERA.3215 to which the proposed rules refer. Therefore, the proposed amendment would not solve the described issue but, on the contrary, would create a consistency problem with the relevant SERA requirements, which have a wider applicability scope.

EASA recognises the need to address this issue in a manner that takes into account employed practices and current technological evolutions, as well as the provisions of ICAO Annex 2, while ensuring the required level of standardisation and safety. However, because further assessment is required, EASA will address this issue in the context of the AWO task.

comment 1552 comment by: *F. Ehmoser*

(6) ensuring the display of lights by the aircraft to be towed, at day and night; **or alternatively in case of an unmanned aircraft, ensure that towing vehicles are equipped with additional flashing lights (e.g. strobe light system);**

Strobe light Systems on towbarless towing trucks is used successfully since many years and avoids the need for technician or cockpit crew with at least the same level of safety.

response Noted

The lights to be displayed by aircraft is an issue already regulated in SERA.3215 to which the proposed rules refer. Therefore, the proposed amendment would not solve the described issue but, on the contrary, would create a consistency problem with the relevant SERA requirements, which have a wider applicability scope.

EASA recognises the need to address this issue in a manner that takes into account employed practices and current technological evolutions, as well as the provisions of ICAO Annex 2, while ensuring the required level of standardisation and safety.



However, because further assessment is required, EASA will address this issue in the context of the AWO task.

comment

1562

comment by: *Graz Airport*

(6) ensuring the display of lights by the aircraft to be towed, at day and night; **or alternatively in case of an unmanned aircraft, ensure that towing vehicles are equipped with additional flashing lights (e.g. strobe light system);**

Strobe light Systems on towbarless towing trucks is used successfully since many years and avoids the need for technician or cockpit crew.

response

Noted

The lights to be displayed by aircraft is an issue already regulated in SERA.3215 to which the proposed rules refer. Therefore, the proposed amendment would not solve the described issue but, on the contrary, would create a consistency problem with the relevant SERA requirements, which have a wider applicability scope.

EASA recognises the need to address this issue in a manner that takes into account employed practices and current technological evolutions, as well as the provisions of ICAO Annex 2, while ensuring the required level of standardisation and safety. However, because further assessment is required, EASA will address this issue in the context of the AWO task.

comment

1624

comment by: *Atle Vivas*

AMC1 ADR.OPS.B.028 Towing

COMMENT: Re item (6) ensuring the display of lights by the aircraft to be towed, at day and night; For this issue there is a GM1 referring to SERA.3215. See our comment to AMC & GM to The rules of the air.

There is a definitive need for an alternate means to identify aircraft being towed in case the aircraft lights cannot be displayed during towing.

For large aircraft, displaying aircraft lights may require electrical power from either the APU or an external source.

If the APU is used, that would normally require a qualified person in the cockpit, and an amount of fuel is also used. As an example, at Oslo Airport Gardermoen, more than 10.000 towing operations is conducted pr year, each consuming an average of 40 l fuel. This equates to more than 400.000 l of fuel pr year.

For both environmental and staffing reasons, this should clearly be avoided. Trials with GPUs mounted on the towing vehicles have showed that it is difficult for these units to provide electrical power which is accepted by the aircraft.

Assuming that the reason for the requirement is to make the aircraft clearly visible to other operators on the movement area, and other who need to see it, for example



	<p>ATS, it should be possible to achieve the same, or better results by floodlighting the aircraft.</p> <p>This could be done by having the necessary lights mounted on the tow truck.</p> <p>It could be possible to have one side lighted red and the other green, if this is deemed necessary.</p> <p>The tow truck is, of course, assumed to be lighted and marked according to ADR.OPS.B.080.</p> <p>A key question is if this would require an AMC to SERA, or if it is sufficient to have an AMC to ADR.OPS.B.080 (c) or an expanded GM1 to ADR.OPS.B.028 LIGHTS TO BE USED DURING TOWING.</p> <p>NOTE: We understand that EASA has started an investigate this issue, as it is an issue affecting numerous aerodromes.</p>
response	<p>Noted</p> <p>The lights to be displayed by aircraft is an issue already regulated in SERA.3215 to which the proposed rules refer.</p> <p>EASA recognises the need to address this issue in a manner that takes into account employed practices and current technological evolutions, as well as the provisions of ICAO Annex 2, while ensuring the required level of standardisation and safety. However, because further assessment is required, EASA will address this issue in the context of the AWO task.</p>

comment	<p>1794 comment by: UAF (Union des Aéroports Français)</p> <p>UAF fully support ACI E comment#1214</p>
response	<p>Noted</p> <p>Please refer to the reply to comment No 1214.</p>

GM1 ADR.OPS.B.028 Aircraft towing	p. 135
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comment	<p>1117 comment by: SAS</p> <p>Supported</p>
response	<p>Noted</p> <p>EASA would like to thank you for your support regarding the proposed changes.</p>
comment	<p>1262 comment by: Gatwick Airport</p> <p>No comment</p>
response	<p>Noted</p>



comment	<p>1515 comment by: <i>Andreas Herndler, CAA Austria</i></p> <p>Strobe light Systems on towbarless towing trucks is used successfully since many years and avoids the need for technician or cockpit crew.</p> <p>Therefore following adjustments are suggested:</p> <p>For the lights that need to be operated during towing of an aircraft, see SERA.3215 'Lights to be displayed by aircraft'. Or alternatively in case of an unmanned aircraft, ensure that towing vehicles are equipped with additional flashing lights (e.g. strobe light system);</p>
response	<p>Noted</p> <p>This guidance material has been deleted as its content has been transferred at rule level.</p>
comment	<p>1553 comment by: <i>F. Ehmoser</i></p> <p>For the lights that need to be operated during towing of an aircraft, see SERA.3215 'Lights to be displayed by aircraft'. or alternatively in case of an unmanned aircraft, ensure that towing vehicles are equipped with additional flashing lights (e.g. strobe light system);</p> <p><i>Strobe light Systems on towbarless towing trucks is used successfully and safe since many years and avoids the need for technician or cockpit crew.</i></p>
response	<p>Noted</p> <p>This guidance material has been deleted as its content has been transferred at rule level.</p>
comment	<p>1563 comment by: <i>Graz Airport</i></p> <div style="border: 1px solid black; padding: 5px; margin: 5px 0;"> <p>For the lights that need to be operated during towing of an aircraft, see SERA.3215 'Lights to be displayed by aircraft'. or alternatively in case of an unmanned aircraft, ensure that towing vehicles are equipped with additional flashing lights (e.g. strobe light system);</p> </div> <div style="border: 1px solid black; padding: 5px; margin: 5px 0;"> <p>Strobe light Systems on towbarless towing trucks is used successfully since many years and avoids the need for technician or cockpit crew.</p> </div>
response	<p>Noted</p> <p>This guidance material has been deleted as its content has been transferred at rule level.</p>

AMC1 ADR.OPS.B.030(b) Surface movement guidance and control system

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comment	377	comment by: Zurich Airport
	In addition to the comment ADR.OPS.B.030 please consider, that the switching between standard and non-standard routes could lead to increasing workload (e.g. due to unexpected situations). We recommend to take human factors into consideration.	
response	Noted	
	The proposed provision does not impose the development of routes, but rather the evaluation of the need, recognising the fact that aerodromes may offer different operating environments. EASA agrees that aerodrome design and the development of relevant operational procedures should always take into account human factors principles.	
comment	664	comment by: CAA Norway
	AMCs and GMs to ADR.OPS.B.030 (ALL) Surface movement guidance and control system	
	COMMENT: Supported. Must be coordinated with the outcome of NPA 2018-6 (D).	
	RATIONALE: NPA 2018-6 (D) introduces several AMCs to ADR.OPS.B.030 as well.	
response	Accepted	
	The final text is coordinated with the text of NPA 2018-06 (AWO); however, for this NPA, the existing text of Regulation (EU) No 139/2014 was taken as reference.	
comment	685	comment by: Amsterdam Airport Schiphol
	Ref. AMC1 ADR.OPS.B.030(b):	
	Under point (a)(3) of the proposed AMC the term 'air traffic services routes' is used; this term normally applies only to routes within an airspace and not to routes on an aerodrome – see also AMC/GM to SERA – GM1 Article 2(46). The term 'ATS routes' therefore seems inappropriate when related to standard taxi routes at an aerodrome.	
response	Noted	
	The AMC states that the designation of a standard taxi routes needs to be different from the designators used for runways and ATS routes.	
comment	1118	comment by: SAS



	Supported
response	Noted EASA would like to thank you for your support regarding the proposed changes.
comment	1215 comment by: <i>ACI Europe</i> Where a route includes taxiing between different areas of responsibility, the transition points should be indicated on either the aerodrome chart or ground movement chart. Rationale: At larger airports transition points may exist not only between air traffic services and the apron management services. Hence, the wording should be more generic and relate to “different areas of responsibility”.
response	Accepted The text has been amended in the suggested direction.
comment	1301 comment by: <i>Swedish Transport Agency</i> COMMENT: Supported. Must be coordinated with the outcome of NPA 2018-6 (D). RATIONALE: NPA 2018-6 (D) introduces several AMCs to ADR.OPS.B.030 as well.
response	Accepted The final text is coordinated with the text of NPA 2018-06 (AWO); however, for this NPA, the existing text of Regulation (EU) No 139/2014 was taken as reference.
comment	1851 comment by: <i>Gatwick Airport</i> No comment
response	Noted
comment	1876 comment by: <i>Danish Transport, Construction and Housing Authority</i> Support all AMC and GM to AMC1.ADR.OPS.B.030
response	Noted EASA would like to thank you for your support regarding the proposed changes.
comment	1920 comment by: <i>IATA</i> IATA / Delta Comment: This is mostly a very good idea with one exception. It should be discouraged making these <u>mandatory</u> for ATC clearances <u>when Low Visibility Procedures are <i>not</i> in</u>

	<p><u>effect</u>. ATC should be permitted to use them or to tactically adjust taxi routes as deemed appropriate by the ATCO for the particular situation. This flexibility is necessary for efficiency.</p>
response	<p>Accepted</p> <p>The proposed AMC prescribes only the elements that the design/development of these routes should take into account. This AMC does not affect their actual use by the ATS personnel, as ATS provision is governed by a different set of Regulations.</p>

GM1 ADR.OPS.B.030(b) Surface movement guidance and control system
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comment	<p>665 comment by: CAA Norway</p> <p>AMCs and GMs to ADR.OPS.B.030 (ALL) Surface movement guidance and control system</p> <p>COMMENT: Supported. Must be coordinated with the outcome of NPA 2018-6 (D).</p> <p>RATIONALE: NPA 2018-6 (D) introduces several AMCs to ADR.OPS.B.030 as well.</p>
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response	<p>Accepted</p> <p>The final text is coordinated with the text of NPA 2018-06 (AWO); however, for this NPA, the existing text of Regulation (EU) No 139/2014 was taken as reference.</p>
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comment	<p>1119 comment by: SAS</p> <p>Supported</p>
response	<p>Noted</p> <p>EASA would like to thank you for your support regarding the proposed changes.</p>

comment	<p>1302 comment by: Swedish Transport Agency</p> <p>COMMENT: Supported. Must be coordinated with the outcome of NPA 2018-6 (D).</p> <p>RATIONALE: NPA 2018-6 (D) introduces several AMCs to ADR.OPS.B.030 as well.</p>
response	<p>Accepted</p> <p>The final text is coordinated with the text of NPA 2018-06 (AWO); however, for this NPA, the existing text of Regulation (EU) No 139/2014 was taken as reference.</p>

comment	<p>1852 comment by: Gatwick Airport</p> <p>No comment</p>
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response Noted

AMC1 ADR.OPS.B.030(c) Surface movement guidance and control system

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comment 229 comment by: skyguide Compliance Management

Ø the AMC1 ADR.OPS.B.030 ©:

*AMC1 ADR.OPS.B.030(c) Surface movement guidance and control system (RMT.0703)
USE OF AIRCRAFT TRANSPONDER*

The transponder operating procedures and the relevant information that needs to be sent to the aeronautical information services provider for publication in the AIP should include the phases and areas of the aerodrome that the transponder needs to be used when an aircraft is on the movement area of the aerodrome, and measures to prevent causing false ACAS II Resolution Advisories to airborne aircraft in the vicinity of the aerodrome.

Such information should be published in the local aerodrome regulations and in the AIP, following coordination with the Competent Authority. The aerodrome operator may additionally consider requesting the broadcast of relevant information via the local Automated Terminal Information Service (ATIS).

Ø

The last sentence highlighted in yellow contradicts the principles prescribed in ICAO Annex 11 § 4.3.6.5 that aim to maintain discipline over the content and length of ATIS broadcasts:

4.3.6.5 Recommendation.— Contents of ATIS should be kept as brief as possible. Information additional to that specified in 4.3.7 to 4.3.9, for example information already available in aeronautical information publications (AIPs) and NOTAM, should only be included when justified in exceptional circumstances.

Unless the intended information is dynamic in some way (which seems unlikely on this topic), it shouldn't be added to the ATIS broadcast. Permanent and stable aerodrome operating procedures belong rather in the AIP, not duplicated on the ATIS. We suggest to delete the highlighted sentence.

response Partially accepted

The text has been amended to take into account the existence of a relevant entry in the AIP.

comment 928 comment by: Aleksandar Ilkovski

AMC1 ADR.OPS.B.030(c):

Is this really meant to be with the authority, should this not be with the AIP provider?

response Noted

The responsibility of the AIS provider is to publish the relevant information. However, there is a need for coordination with the competent authority.



comment	1120	comment by: SAS
	Supported	
response	Noted	
	EASA would like to thank you for your support regarding the proposed changes.	
comment	1216	comment by: ACI Europe
	It appears to ACI EUROPE that this provision introduces unclear division of responsibilities between the aerodrome operator, the ANS and the AIS.	
response	Noted	
	The AMC does not allocate responsibilities; it is a means to comply with existing responsibilities when it comes to the required publication of the relevant information.	
comment	1303	comment by: Swedish Transport Agency
	COMMENT: Supported. Must be coordinated with the outcome of NPA 2018-6 (D).	
	RATIONALE: NPA 2018-6 (D) introduces several AMCs to ADR.OPS.B.030 as well.	
response	Accepted	
	The final text is coordinated with the text of NPA 2018-06 (AWO); however, for this NPA, the existing text of Regulation (EU) No 139/2014 was taken as reference.	
comment	1517 ❖	comment by: Andreas Herndler, CAA Austria
	Transponder operating procedures are developed by ATS.	
	Therefore following adjustments are suggested: delete the responsibility of the aerodrome operator for transponder operating procedures	
response	Noted	
	Please note that the aerodrome operator is already responsible for ensuring the provision of the SMGCS at the aerodrome. The potential lack of expertise by an aerodrome operator in this area may, as in other cases, be compensated in many ways. In any case, coordination with the ATS provider is required, as the measures may also affect areas which are under the operational responsibility of the aerodrome operator.	
comment	1566	comment by: Graz Airport



	<div style="border: 1px solid black; padding: 5px;">delete</div> <div style="border: 1px solid black; padding: 5px; margin-top: 5px;">Transponder operating procedures and publication are in the responsibility of the ATS</div>
response	<p>Noted</p> <p>Please note that the aerodrome operator is already responsible for ensuring the provision of the SMGCS at the aerodrome. The potential lack of expertise by an aerodrome operator in this area may, as in other cases, be compensated in many ways. In any case, coordination with the ATS provider is required, as the measures may also affect areas which are under the operational responsibility of the aerodrome operator.</p>

comment	<p>1597 comment by: <i>F. Ehmoser</i></p> <p>Delete</p> <p><i>Transponder operating procedures and publication are in the responsibility of the ATS</i></p>
response	<p>Noted</p> <p>Please note that the aerodrome operator is already responsible for ensuring the provision of the SMGCS at the aerodrome. The potential lack of expertise by an aerodrome operator in this area may, as in other cases, be compensated in many ways. In any case, coordination with the ATS provider is required, as the measures may also affect areas which are under the operational responsibility of the aerodrome operator.</p>

comment	<p>1796 comment by: <i>UAF (Union des Aéroports Français)</i></p> <p>UAF fully support ACI E comment#1216</p>
response	<p>Noted</p> <p>Please refer to the reply to comment No 1216.</p>

comment	<p>1923 comment by: <i>Gatwick Airport</i></p> <p>No comment</p>
response	<p>Noted</p>



comment	225	comment by: <i>GdF</i>
	We agree explicitly with this provision. While we think that the frequency used should be the ATS frequency, it is not necessary to change this provision.	
response	Noted	
comment	571	comment by: <i>Zurich Airport</i>
	Zurich Airports RWY Safety Teams has identified that the safety benefit to use common frequency is offset by two points:	
	<ul style="list-style-type: none"> • Increasing use of the ATC frequency could lead to increasing workload of the controller (human factor) • Quality of voice (in terms of competence) from the vehicle driver is not always suitable and could lead to misunderstandings. 	
response	Noted	
	Please note that the proposed provisions specifically address the competence of drivers when it comes to the use of radio and that in any case the number of vehicles (and therefore the need for communication between drivers and ATS unit) in the manoeuvring area is meant to be limited.	
comment	666	comment by: <i>CAA Norway</i>
	GMs ADR.OPS.B.031(b) (ALL) Communications	
	COMMENT: Supported	
response	Noted	
	EASA would like to thank you for your support regarding the proposed changes.	
comment	929	comment by: <i>Aleksandar Ilkovski</i>
	GM1 ADR.OPS.B.031(b): Should there be an AMC?	
response	Noted	
comment	1121	comment by: <i>SAS</i>
	Supported	
response	Noted	



EASA would like to thank you for your support regarding the proposed changes.

comment 1376 ❖ comment by: *Andreas Herndler, CAA Austria*
to be deleted, as this is a task of ANSP

response Noted
The development of procedures for communication between the two organisations concerns equally the aerodrome operator, which is responsible for the safe operation of the aerodrome in accordance with the provisions of Regulation (EU) No 139/2014 and the essential requirements of Regulation (EU) 2018/1139.

comment 1401 ❖ comment by: *European Transport Workers Federation - ETF*

<p><u>Page 54 + page 137</u> ADR.OPS.B.031 The aerodrome operator shall, in coordination with the air traffic services provider, establish communication procedures, including :</p> <p>(4)signals to be used, in all visibility conditions, in the case of radio communication failure between the air traffic services unit and vehicles or pedestrians on the manoeuvring area</p>	<p>B.031 and the GM B.031 are not covering the case when a radio communication failure occurs during operations on the manoeuvring area. A specific GM should cover it to recommend the suspension of other movements on the airport as appropriate.</p>
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response Noted
The specific provision concerns the communication procedures to be followed in the event of a radio communication failure. Additional actions may be taken depending on the operating conditions, the level of traffic, etc. Your comment will be assessed in a separate context, given that such actions are normally initiated by the ATS provider and not by the aerodrome operator, while admittedly there must be coordination between the two actors.

comment 1626 comment by: *Atle Vivas*
Supported

response Noted
EASA would like to thank you for your support regarding the proposed changes.



comment	1924	comment by: Gatwick Airport
	No comment	
response	Noted	

GM1 ADR.OPS.B.031(b)(4) Communications

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comment	1122	comment by: SAS
	Supported	
response	Noted	
	EASA would like to thank you for your support regarding the proposed changes.	

comment	1376 ❖	comment by: Andreas Herndler, CAA Austria
	to be deleted, as this is a task of ANSP	
response	Not accepted	
	The development of procedures for communication between the two organisations concerns equally the aerodrome operator, which is responsible for the safe operation of the aerodrome in accordance with the provisions of Regulation (EU) No 139/2014 and the essential requirements of Regulation (EU) 2018/1139.	

comment	1625	comment by: Danish Transport, Construction and Housing Authority
	Comment: This GM should be AMC-material.	
	Rationale: The Competent Authority can't enforce GM-material, so if this is to be a part of the standard training, the tower and the ground crew should know about it. This means that this GM should be AMC-material, otherwise it won't be effective.	
response	Accepted	
	The text has been amended.	

comment	1627	comment by: Atle Vivas
	Supported	
response	Noted	
	EASA would like to thank you for your support regarding the proposed changes.	



comment	1929	comment by: Gatwick Airport
	Not convinced how effective or practical this would be at a large airport in event of comms failure.	
response	Noted	

AMC1 ADR.OPS.B.033(a) Control of pedestrians

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comment	471	comment by: European Powered Flying Union
	AMC1 ADR.OPS.B.033(b) Control of pedestrians Personnel operating on the manoeuvring area p 138 and 139/207	
	Question	1
	Is it really a matter of controlling pedestrians? Should not "guiding" be used?	
	Question 2	
	What about operations in darkness? Would you put in place some kind of conspicuity requirements.	
response	Noted	
	The proposed AMC addresses the cases where a pedestrian needs to enter the manoeuvring area without a vehicle. This needs to be done in a controlled manner, in order to ensure safety. The aerodrome operator needs to provide relevant protective means, including high-visibility clothing, and to determine the hours that such an entry is possible.	
comment	667	comment by: CAA Norway
	AMCs ADR.OPS.B.033 (ALL) Control of pedestrians COMMENT: Supported	
response	Noted	
	EASA would like to thank you for your support regarding the proposed changes.	
comment	930	comment by: Aleksandar Ilkovski
	AMC1 ADR.OPS.B.033(a): Swedavia suggest that 'monitored by' may be a better wording to use here. The AMC mention that coordination is needed with the responsible security competent authority but not equivalent for safety.	
response	Noted	



comment	<p>1123 comment by: SAS</p> <p>Supported</p>
response	<p>Noted</p> <p>EASA would like to thank you for your support regarding the proposed changes.</p>
comment	<p>1217 comment by: ACI Europe</p> <p>Reference is made to ACI EUROPE comments on ADR.OPS.B.033. Further, the word ‘escorted’ in the proposed text of AMC1 ADR.OPS.B.033(a) may suggest that passengers are to be physically escorted. This is not in line with the directives in the IATA AHM and is not practically applied at aerodromes. Passengers, walking across a platform, are under supervision; which differs from (physically) escorting individuals or groups of passengers. It is suggested to change the wording from ‘escorted’ into ‘under supervision’ or ‘supervised’.</p>
response	<p>Noted</p> <p>The text has been reviewed and it is found that the proposed provisions are in line with the relevant content of the essential requirements of Annex VII to Regulation (EU) 2018/1139.</p>
comment	<p>1304 comment by: Swedish Transport Agency</p> <p>Supported.</p>
response	<p>Noted</p> <p>EASA would like to thank you for your support regarding the proposed changes.</p>
comment	<p>1436 comment by: CAA Finland</p> <p>Should the sentence :</p> <p>In case passengers are embarking/disembarking on the apron, or if no transportation means is usedfor their transfer to/from the terminal building or from one stand to the other, then apart from the need to ensure that they are always escorted, the procedures should, amongst others, include jet-blast protection measures during their presence on the apron.</p> <p>be changed to:</p> <p>In case passengers are embarking/disembarking on the apron, or if no transportation means is usedfor their transfer to/from the terminal building or from one stand to the other, then apart from the need to ensure that they are always under supervision, the procedures should, amongst others, include jet-blast protection measures during their presence on the apron.</p>
response	<p>Noted</p>



The text has been reviewed and it is found that the proposed provisions are in line with the relevant content of the essential requirements of Annex VII to Regulation (EU) 2018/1139.

comment	<p>1521 comment by: <i>Andreas Herndler, CAA Austria</i></p> <p>A suitable map may be to large to be carried by a pedestrian.</p> <p>Therefore following adjustments are suggested:</p> <p>(a) Personnel allowed access to the manoeuvring area without the use of a vehicle should be equipped at least with personal protective equipment, suitable charts of the aerodrome, and other appropriate means to conduct their duties suitable to the situation and local condition.</p>
response	<p>Noted</p> <p>There is a need to provide suitable means of orientation and these include a chart.</p>

comment	<p>1567 comment by: <i>Graz Airport</i></p> <div style="border: 1px solid gray; padding: 5px; margin: 5px 0;"> <p>(a) Personnel allowed access to the manoeuvring area without the use of a vehicle should be equipped at least with personal protective equipment, suitable charts of the aerodrome, and other appropriate means to conduct their duties suitable to the situation and local condition.</p> </div> <div style="border: 1px solid gray; padding: 5px; margin: 5px 0;"> <p>A suitable map may be to large to be carried by a pedestrian.</p> </div>
response	<p>Noted</p> <p>There is a need to provide suitable means of orientation and these include a chart.</p>

comment	<p>1605 comment by: <i>F. Ehmoser</i></p> <p>(a) Personnel allowed access to the manoeuvring area without the use of a vehicle should be equipped at least with personal protective equipment, suitable charts of the aerodrome, and other appropriate means to conduct their duties suitable to the situation and local condition.</p> <p><i>A suitable map may be to large to be carried by a pedestrian. Pedestrians do not need to hold a chart of the aerodrome, as the wording "suitable" might imply a large and very detailed map</i></p>
response	<p>Noted</p> <p>There is a need to provide suitable means of orientation and these include a chart.</p>



comment	1628	comment by: <i>Atle Vivas</i>
	Supported	
response	Noted EASA would like to thank you for your support regarding the proposed changes.	
comment	1797	comment by: <i>UAF (Union des Aéroports Français)</i>
	UAF fully support ACI E comment#1217 and #1218	
response	Noted Please refer to the replies to comments Nos 1217 and 1218.	
comment	1877	comment by: <i>Danish Transport, Construction and Housing Authority</i>
	Support all AMC and GM to AMC1.ADR.OPS.B.033	
response	Noted EASA would like to thank you for your support regarding the proposed changes.	
comment	1930	comment by: <i>Gatwick Airport</i>
	No comment	
response	Noted	

AMC1 ADR.OPS.B.033(b) Control of pedestrians

p. 138-139

comment	390	comment by: <i>Federal Ministry of Transport Germany, Aerodrome Department</i>
	<p>Die geplante Implementierung von Regelungen des Fußgängerverkehrs auf den Flugbetriebsflächen wird begrüßt. Dies bezieht sich insbesondere auf Regelungen im Fall von CAT II/III Betrieb. Für die Schulung von Nicht-Fahrzeugführern auf Flugbetriebsflächen wird eine Integration in die Safety-Schulung als das geeignete Mittel erachtet.</p>	
response	Noted	
comment	931	comment by: <i>Aleksandar Ilkovski</i>



	AMC1 ADR.OPS.B.033(b)(a): Radio for two-way communication with ATC should be included.
response	Accepted The text has been amended in this direction.
comment	932 comment by: Aleksandar Ilkovski AMC1 ADR.OPS.B.033(b)(b): Too restrictive, at smaller airports this should be able to be taken in coordination with the ATC. Swedavia suggest that it should be moved to GM as it may vary depending on size, traffic and complexity of the aerodrome.
response	Noted The text has been reviewed and it is found that the proposed provisions are at the appropriate level and in line with the relevant content of the essential requirements of Annex VII to Regulation (EU) 2018/1139.
comment	1124 comment by: SAS Supported
response	Noted EASA would like to thank you for your support regarding the proposed changes.
comment	1218 comment by: ACI Europe Point (a): Radio for two-way communication with ATC should be included. Point (b): ACI EUROPE suggest that this AMC is be moved to GM as it may vary depending on size, traffic density and complexity of the aerodrome.
response	Noted The text has been reviewed and it is found that the proposed provisions are at the appropriate level and in line with the relevant content of the essential requirements of Annex VII to Regulation (EU) 2018/1139. Radio communication means have been included in the text.
comment	1305 comment by: Swedish Transport Agency Supported.
response	Noted EASA would like to thank you for your support regarding the proposed changes.



comment	1629 Supported	comment by: <i>Atle Vivas</i>
response	Noted EASA would like to thank you for your support regarding the proposed changes.	
comment	1931 It is felt that pedestrians should be escorted with a vehicle in order to provide a more visible presence and facilitate an expeditious exit from the manoeuvring area in the event of an incident.	comment by: <i>Gatwick Airport</i>
response	Noted The particular provision as well as the relevant AMC deal specifically with the case where (only) pedestrians enter the manoeuvring area, as well as the precautionary measures to be taken. Of course, nothing in the proposals prevents an aerodrome operator from having a vehicle escorting such a pedestrian.	

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comment	1125 Supported	comment by: <i>SAS</i>
response	Noted EASA would like to thank you for your support regarding the proposed changes.	
comment	1392 there is no ADR.OPS.B.035(a)(3)	comment by: <i>Graz Airport</i>
response	Accepted The correct title is AMC1 ADR.OPS.B.035(a).	
comment	1932 No comment	comment by: <i>Gatwick Airport</i>
response	Noted	



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comment

677

comment by: CAA Norway

GMC ADR.OPS.B.035 Operations in winter condition

COMMENT/PROPOSAL: As operations in winter conditions by its nature introduces hazards not associated with normal operations, we propose the inclusion of a GM containing a set of Safety Performance Indicators (SPIs) for such operations. This would enable the aerodrome operator to fulfil the obligations under ADR.OR.005(b). Being at GM level, implementation would be voluntary. The specific proposal is provided below.

GMX ADR.OR.D.035 Winter operations**PROPOSED NEW GM RELATED TO “NORMAL WINTER OPERATIONS”***MONITORING PROGRAMME — PERFORMANCE INDICATORS*

ADR.OR.005(b) requires the aerodrome operator to have, as part of their management system, the means to verify the safety performance of the aerodrome operator's organisation in reference to the safety performance indicators and safety performance targets of the safety management system, and to validate the effectiveness of safety risk controls.

Winter operations introduce challenges in the form of contaminated runways, which, if not properly managed, can have a detrimental effect on safety.

The following performance indicators could be used in order to monitor the success in correctly assessing and reporting the runway surface condition:

(a) Number of movements on a contaminated runway (runway condition code 1 – 4) per total number of movements.

This number provides an indication of the exposure of the aerodrome to winter conditions. Information concerning the contamination of the runway can be derived from the RCRs.

(b) Proportion of landings identified under (a) where the braking action reported through SPECIAL AIR REPORTS was one RWYCC worse than the RCRs issued by the aerodrome operator;

(c) Proportion of landings identified under (a) where the braking action reported through SPECIAL AIR REPORTS was two RWYCCs worse than the RCRs issued by the aerodrome operator.

The indicators (b) and (c) give an indication of the quality of runway surface condition assessment.

(d) Proportion of landings on reported RWYCC 1 or 2 vs total number of landings on contaminated runways (reported RWYCC 1 – 4).

The indicator aims to measure the frequency of operations on contaminated runways; with the greater safety concern

Performance indicators should be recorded pr month.



	<p>Rationale</p> <p><i>The proposed GM provides information on possible performance indicators that could be established in order to monitor the exposure to winter conditions and to the effectiveness of the procedures for aerodrome winter operations.</i></p>
response	<p>Noted</p> <p>EASA does not consider at this stage the introduction of specific performance indicators for winter operations. This can be done at State level through the State Safety Programme.</p>
comment	<p>1126 comment by: SAS</p> <p>Supported</p>
response	<p>Noted</p> <p>EASA would like to thank you for your support regarding the proposed changes.</p>
comment	<p>1933 comment by: Gatwick Airport</p> <p>No comment</p>
response	<p>Noted</p>

AMC1 ADR.OPS.B.035(a)(1) Operations in winter conditions	p. 140-141
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comment	<p>122 comment by: Aerodrome safety regulation departement</p> <p>This AMC should be renumbered AMC1 ADR.OPS.B.035 (a)(2), accordingly to the IR paragraph it now refers to.</p> <p>Moreover the list of contaminants to be removed depicted in point (a) is inconsistent with ADR.OPS.B.035 (a)(2) and the objective of the snow plan. Indeed, the removal of standing water or other contaminants shouldn't be part of the snow plan.</p>
response	<p>Accepted</p>
comment	<p>668 comment by: CAA Norway</p> <p>AMC1 ADR.OPS.B.035(a)(1) Operations in winter conditions</p> <p>COMMENT: Supported</p>
response	<p>Noted</p> <p>EASA would like to thank you for your support regarding the proposed changes.</p>
comment	<p>1127 comment by: SAS</p>



	Supported
response	Noted EASA would like to thank you for your support regarding the proposed changes.
comment	1306 comment by: <i>Swedish Transport Agency</i> Supported.
response	Noted EASA would like to thank you for your support regarding the proposed changes.
comment	1432 comment by: <i>Norwegian Air (Norwegian Air Norway, Norwegian Air International, Norwegian Air UK and Norwegian Air Shuttle)</i> Supported.
response	Noted EASA would like to thank you for your support regarding the proposed changes.
comment	1522 comment by: <i>Wideroe Flyveselskap AS</i> Supported.
response	Noted EASA would like to thank you for your support regarding the proposed changes.
comment	1631 comment by: <i>Atle Vivas</i> Supported
response	Noted EASA would like to thank you for your support regarding the proposed changes.
comment	1934 comment by: <i>Gatwick Airport</i> No comment
response	Noted

AMC1 ADR.OPS.B.035(a)(2) Operations in winter conditions

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comment	123 comment by: <i>Aerodrome safety regulation departement</i>
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response	<p>This AMC should be renumbered AMC1 ADR.OPS.B.035 (a)(1) accordingly to the IR paragraph it now refers to.</p> <p>Moreover the list of contaminants to be removed depicted in point (b) is inconsistent with ADR.OPS.B.035 (a) (1) and the objective of the snow plan. Indeed, the removal of « other contaminants » than snow, slush or ice shouldn't be part of the snow plan.</p> <p>Accepted</p>
comment	<p>669 comment by: CAA Norway</p> <p>AMC1 ADR.OPS.B.035(a)(2) Operations in winter conditions</p> <p>COMMENT: Consider changing the heading to: USE OF MATERIALS FOR DE-/ANTI-ICING OF PAVED SURFACES</p> <p>RATIONALE: Clarification in order not to confuse it with the use of sand or grit.</p> <p>COMMENT: Item a) Suggest substituting 'surface friction' with 'surface friction characteristics'.</p> <p>RATIONALE: Surface friction is a not a meaningful term as friction depends on the interaction between the tyre and the surface</p>
response	<p>Accepted</p>
comment	<p>1128 comment by: SAS</p> <p>Supported</p>
response	<p>Noted</p> <p>EASA would like to thank you for your support regarding the proposed changes.</p>
comment	<p>1219 comment by: ACI Europe</p> <p>COMMENT: Consider changing the heading to: USE OF MATERIALS FOR DE-/ANTI-ICING OF PAVED SURFACES</p> <p>RATIONALE: Clarification in order not to confuse it with the use of sand or grit.</p> <p>COMMENT: Item a) Suggest substituting 'surface friction' with 'surface friction characteristics'.</p> <p>RATIONALE: Surface friction is a not a meaningful term as friction depends on the interaction between the tyre and the surface.</p>
response	<p>Accepted</p>
comment	<p>1307 comment by: Swedish Transport Agency</p> <p>Supported.</p>



response	Noted EASA would like to thank you for your support regarding the proposed changes.
comment	1433 <i>comment by: Norwegian Air (Norwegian Air Norway, Norwegian Air International, Norwegian Air UK and Norwegian Air Shuttle)</i> Supported.
response	Noted EASA would like to thank you for your support regarding the proposed changes.
comment	1632 <i>comment by: Atle Vivas</i> AMC1 ADR.OPS.B.035(a)(2) Operations in winter conditions COMMENT: Consider changing the heading to: USE OF MATERIALS FOR DE-/ANTI-ICING OF PAVED SURFACES RATIONALE: Clarification in order not to confuse it with the use of sand or grit. COMMENT: Item a) Suggest substituting 'surface friction' with 'surface friction characteristics'. RATIONALE: Surface friction is a not a meaningful term as friction depends on the interaction between the tyre and the surface
response	Accepted
comment	1815 <i>comment by: Danish Transport, Construction and Housing Authority</i> Comment: GM-marerial is missing for this AMC. Rationale: This AMC contains some general requirements, but does not give any proposals to how this is to be achieved.
response	Noted

AMC1 ADR.OPS.B.035(a)(3) Operations in winter conditions

p. 141-142

comment	124 <i>comment by: Aerodrome safety regulation departement</i> Point (a)(3) of the IR has been deleted. As a consequence, this AMC should be renumbered as AMC1 ADR.OPS.B.035 (a) and reordered with preceeding AMCs. In addition, the deletion of the current GM from which the content of this AMC has been transposed is not mentioned in the NPA.
response	Accepted



comment	328 comment by: <i>John Hamshare (Heathrow)</i> Page 141 AMC1.ADR.OPS.B.035 (a) (3) (b) should not say “The Met Office” but “the provider of weather forecasts”
response	Accepted ‘Meteorological Office’ is replaced with ‘MET provider’.
comment	521 comment by: <i>UK CAA</i> Page No: 141 Paragraph No: AMC1 ADR.OPS.B.035 (a)(3), item (b) Comment: We recommend the reference to ‘Meteorological Office’ should refer to ‘Meteorological Provider’ Justification: Correct terminology
response	Accepted ‘Meteorological Office’ is replaced with ‘MET provider’.
comment	603 comment by: <i>ADV - German Airports Association</i> The content of the published snow plan should be focused on the relevance for pilots and flight planning.
response	Noted
comment	671 comment by: <i>CAA Norway</i> AMC1 ADR.OPS.B.035(a)(3) Operations in winter conditions COMMENT: Item (b), Consider using ‘air traffic services’ instead of ‘air traffic control’ RATIONALE: To achieve consistency throughout the document.
response	Accepted
comment	1129 comment by: <i>SAS</i> Supported
response	Noted EASA would like to thank you for your support regarding the proposed changes.



comment	1220	comment by: <i>ACI Europe</i>
	<p>COMMENT: As the aerodrome snowplan will have to be adopted to the local operating environment, it will not have the same content throughout Europe. For this reason, the requirements should be in GM to avoid airport operators having to develop an AltMoc covering deviations to the contents of the snowplan.</p> <p>RATIONALE: It is an unreasonable and disproportionate burden to introduce a provision at AMC-level that will not have to be complied with at many aerodromes with minimal or no winter conditions.</p>	
response	<p>Not accepted</p> <p>Please refer to the relevant implementing rule and the introductory sentence of the AMC.</p>	
comment	1308	comment by: <i>Swedish Transport Agency</i>
	<p>COMMENT: Item (b), Consider using 'air traffic services' instead of 'air traffic control'</p> <p>RATIONALE: To achieve consistency throughout the document.</p>	
response	<p>Accepted</p>	
comment	1369	comment by: <i>Andreas Herndler, CAA Austria</i>
	<p>there is no ADR.OPS.B.035(a)(3)</p>	
response	<p>Accepted</p> <p>The title has been changed to AMC1 ADR.OPS.B.035(a).</p>	
comment	1435	comment by: <i>Norwegian Air (Norwegian Air Norway, Norwegian Air International, Norwegian Air UK and Norwegian Air Shuttle)</i>
	<p>Supported.</p>	
response	<p>Noted</p> <p>EASA would like to thank you for your support regarding the proposed changes.</p>	
comment	1621	comment by: <i>F. Ehmoser</i>
	<p>There is no ADR.OPS.B.035(a)(3)</p>	
response	<p>Accepted</p> <p>The title has been changed to AMC1 ADR.OPS.B.035(a).</p>	
comment	1634	comment by: <i>Atle Vivas</i>

	AMC1 ADR.OPS.B.035(a)(3) Operations in winter conditions
	COMMENT: Item (b), Consider using 'air traffic services' instead of 'air traffic control'
	RATIONALE: To achieve consistency throughout the document.
response	Accepted
comment	1878 comment by: <i>Danish Transport, Construction and Housing Authority</i>
	Support CAA Norway
response	Noted

AMC2 ADR.OPS.B.035(a)(3) Operations in winter conditions

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comment	125 comment by: <i>Aerodrome safety regulation departement</i>
	Point (a)(3) of the IR has been deleted. As a consequence, this AMC should be renumbered as AMC2 ADR.OPS.B.035 (a) and reordered with preceding AMCs.
response	Accepted
comment	375 comment by: <i>Zurich Airport</i>
	Zurich Airports Runway Safety Team supports the involment of the rescue and fire fighting services into the coordination for the development of the aerodrome snow plan.
response	Noted EASA would like to thank you for your support regarding the proposed changes.
comment	425 comment by: <i>Federal Ministry of Transport Germany, Aerodrome Department</i>
	Da es fraglich ist, in wie fern bei den unterschiedlichen Interessensgruppen, die vom Winterbetrieb eines Flugplatzes betroffen sind, eine Einigung hinsichtlich der Räumpriorisierungen getroffen werden kann (insb. diverse involvierte Flugzeugbetreiber), sollte die Formulierung der aktuellen Vorgaben „in consultation with“ beibehalten werden (NPA: „in coordination with“). Der Text würde dann auch den Vorgaben der ICAO entsprechen.
response	Accepted
comment	672 comment by: <i>CAA Norway</i>
	AMC2 ADR.OPS.B.035(a)(3) Operations in winter conditions



	COMMENT: Supported
response	Noted EASA would like to thank you for your support regarding the proposed changes.
comment	1130 comment by: SAS Supported
response	Noted EASA would like to thank you for your support regarding the proposed changes.
comment	1309 comment by: Swedish Transport Agency Supported.
response	Noted EASA would like to thank you for your support regarding the proposed changes.
comment	1370 comment by: Andreas Herndler, CAA Austria there is no ADR.OPS.B.035(a)(3)
response	Accepted The title is changed to AMC2 ADR.OPS.B.035(a).
comment	1393 comment by: Graz Airport there is no ADR.OPS.B.035(a)(3)
response	Accepted The title is changed to AMC2 ADR.OPS.B.035(a).
comment	1524 comment by: Wideroe Flyveselskap AS Supported.
response	Noted EASA would like to thank you for your support regarding the proposed changes.



comment	1620	comment by: <i>F. Ehmoser</i>
	There is no ADR.OPS.B.035(a)(3)	
response	Accepted	
	The title is changed to AMC2 ADR.OPS.B.035(a).	
comment	1635	comment by: <i>Atle Vivas</i>
	Supported	
response	Noted	
	EASA would like to thank you for your support regarding the proposed changes.	
comment	1666	comment by: <i>Brussels Airport Company</i>
	This is a recommendation in Annex 14 and should stay as such in EASA rulemaking.	
	Relocate to GM iso AMC.	
response	Noted	
	EASA considers that the involvement of all affected parties in the consultation for the establishment of clearance priorities is important.	

GM1 ADR.OPS.B.035(b)(3) Operations in winter conditions

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comment	329	comment by: <i>John Hamshare (Heathrow)</i>
	Page 142 – GM1 ADR.OPS.B.035 (b)(3) Good to see the content of the SIB is here enabling the AIP to be used.	
response	Noted	
	EASA would like to thank you for your support regarding the proposed changes.	
comment	673	comment by: <i>CAA Norway</i>
	GM1 ADR.OPS.B.035(b)(3) Operation in winter conditions	
	COMMENT: Supported	
response	Noted	
	EASA would like to thank you for your support regarding the proposed changes.	
comment	1131	comment by: <i>SAS</i>



response	<p>Supported</p> <hr/> <p>Noted</p> <p>EASA would like to thank you for your support regarding the proposed changes.</p>
comment	<p>1525 comment by: <i>Wideroe Flyveselskap AS</i></p> <p>Supported.</p>
response	<p>Noted</p> <p>EASA would like to thank you for your support regarding the proposed changes.</p>
comment	<p>1638 comment by: <i>Atle Vivas</i></p> <p>Supported</p>
response	<p>Noted</p> <p>EASA would like to thank you for your support regarding the proposed changes.</p>
comment	<p>1669 comment by: <i>Brussels Airport Company</i></p> <p>Based on SIB sent in early 2018. What is the added value of publishing this for aerodromes with limited winter operations? May be useful for home carriers.</p> <p>That said, SIB do not belong in rulemaking (be it GM, AMC or IR)! A safety information bulletin has a different function than rulemaking. Proposal to delete completely in rulemaking</p>
response	<p>Noted</p> <p>Please refer to the explanation provided in the first paragraph of the GM.</p>
comment	<p>1956 comment by: <i>European Cockpit Association</i></p> <p>GM1 ADR.OPS.B.035(b)(3) Operation in winter conditions (RMT.0704) INFORMATION ON ALKALI-ORGANIC RUNWAY DE-/ANTI-ICING SUBSTANCES</p> <p>ECA's Comment:Ensure that this information is passed on to those responsible for dealing with the effects of these substances (aircraft scheduling, maintenance). Line pilots do not have detailed knowledge of these interactions.</p>
response	<p>Noted</p>

AMC1 ADR.OPS.B.036(b)(1)(i) Operations on specially prepared winter runways	p. 143
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comment	<p>330 comment by: <i>John Hamshare (Heathrow)</i></p>
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response	<p>Page 143 – AMC1 ADR.Ops.B.036 (b)(1)(i) – the text just tells you to use it ! Shouldn't it be introduced by "If the aerodrome has procedures..." or "If the aerodrome uses grit..."</p> <p>Accepted</p>
comment	<p>355 comment by: <i>Avinor AS</i></p> <p>Item (b)(4) ...and the air temperature is stable and the surface temperature is below freezing, use frozen sand; and...</p> <p>PROPOSED REVISION: ... and the air temperature is stable and the surface temperature is below freezing, use frozen sand consider using frozen sand or grit; and...</p> <p>RATIONALE: It should not be interpreted as mandatory to use sand or grit at the described conditions. Their use should be at the discretion of the aerodrome staff considering all information available to them.</p>
response	<p>Accepted</p> <p>Point (b)(4) is now incorporated into (b)(2).</p>
comment	<p>493 comment by: <i>AIRBUS</i></p> <p>Please clarify or modify the following points:</p> <p>In the procedures for use of sand and grit, should the point (3) not be the first step?</p> <p>In the paragraph (b), there is an extra "and" at the beginning of point (4).</p> <p>During the discussions it was mentioned that the sand used should be neither too coarse nor too fine. In this AMC only the maximum size of 4.75mm sieve is stated. Should there also be guidance on the removal of fines from the mix?</p>
response	<p>Accepted</p> <p>The text has been revised.</p>
comment	<p>688 comment by: <i>CAA Norway</i></p> <p>AMC1 ADR.OPS.B.036(b)(1)(i) Operations on specially prepared winter runways</p> <p>COMMENT: Item (b)(4), Suggest rephrase to read: 'when the air temperature is stable and the surface temperature is below freezing, consider using frozen sand or grit'</p> <p>RATIONALE: Mainly editorial</p>
response	<p>Accepted</p> <p>Point (b)(4) is now incorporated into (b)(2).</p>



comment	933	comment by: Aleksandar Ilkovski
	<p>AMC1 ADR.OPS.B.036 (b)(1)(i): The paragraph only refers to sand being used within the scope of SPWR. Many airports use sand for improving friction but outside the regulations of SPWR. Please consider including all use of sand (not just SPWR) to better harmonise with ICAO 9137 part 2 (7.7.13).</p>	
response	Noted	
comment	1132	comment by: SAS
	Supported	
response	<p>Noted</p> <p>EASA would like to thank you for your support regarding the proposed changes.</p>	
comment	1221	comment by: ACI Europe
	<p>PROPOSED REVISION: ... and the air temperature is stable and the surface temperature is below freezing, use frozen sand consider using frozen sand or grit; and...</p> <p>RATIONALE: It should not be interpreted as mandatory to use sand or grit at the described conditions. Their use should be at the discretion of the aerodrome staff considering all information available to them. Additionally, the paragraph only refers to sand being used within the scope of SPWR. Many airports use sand for improving friction but outside the regulations of SPWR. The wording should be changed to allow all use of sand (not just SPWR) to better harmonise with ICAO 9137 part 2 (7.7.13).</p>	
response	<p>Partially accepted</p> <p>Point (b)(4) is now incorporated into (b)(2).</p>	
comment	1310	comment by: Swedish Transport Agency
	<p>COMMENT: The paragraph only refers to sand being used within the scope of SPWR. Many airports use sand for improving friction but outside the regulations of SPWR.</p> <p>RATIONALE: Consider including all use of sand (not just SPWR) to better harmonise with ICAO 9137 part 2 (7.7.13).</p>	
response	Noted	
comment	1437	comment by: Norwegian Air (Norwegian Air Norway, Norwegian Air International, Norwegian Air UK and Norwegian Air Shuttle)
	Supported.	



response	Noted EASA would like to thank you for your support regarding the proposed changes.
comment	1640 comment by: <i>Atle Vivas</i> AMC1 ADR.OPS.B.036(b)(1)(i) Operations on specially prepared winter runways COMMENT: Item (b)(4), Suggest rephrase to read: ‘when the air temperature is stable and the surface temperature is below freezing, consider using frozen sand or grit’ RATIONALE: Mainly editorial
response	Accepted Point (b)(4) is now incorporated into (b)(2).
comment	1879 comment by: <i>Danish Transport, Construction and Housing Authority</i> Support CAA Norway
response	Noted
comment	1957 comment by: <i>European Cockpit Association</i> AMC1 ADR.OPS.B.036 and GM1 ADR.OPS.B.036 ECA's Comment: Remove. Rationale: see page 57.
response	Noted Please see the response to the similar comment.
comment	1958 comment by: <i>European Cockpit Association</i> AMC1 ADR.OPS.B.036(b)(1)(i) Operations on specially prepared winter runways (RMT.0704) PROCEDURES FOR USE OF SAND OR GRIT The aerodrome operator should: (a) when the runway is contaminated with compacted snow: (1) use loose sand or grit ECA's comment: The text gives an impression that every aerodrome operator should use sand, while this takes place only in some aerodromes. For example Finland does not, and does not wish to, put sand on movement areas. Rewording for example: “The aerodrome operator MAY use sand...”



response Accepted
The introductory sentence has been changed.

GM1 ADR.OPS.B.036(b)(1)(i) Operations on specially prepared winter runways

p. 143-144

comment 343 comment by: *Avinor AS*

COMMENT: This GM could include more information on the sand/grit specification to further ensure that the right quality can be obtained.

PROPOSED ADDITION:
The sand or grit sieve-curve specification should be described. Use and content of chemicals to reach the quality should be described. If used, the type and amount of chemicals should be described. The sand or grit should contain a minimum of quarts or limestone. The sand or grit should not contain humus. The composition of minerals should be documented. The sand or grit should contain a minimum of moisture.

Gradings of sand;
(i) For "loose sand" fraction 2 to 4, mm
(ii) For "FROZEN SAND" fraction 0 to 4 mm

RATIONALE:
 More information on the sand/grit specification will further ensure that the right quality can be obtained and subsequently used at the aerodrome.

response Noted

comment 689 comment by: *CAA Norway*

GM1 ADR.OPS.B.036(b)(1)(i) Operations on specially prepared winter runways

COMMENT: Supported

response Noted
EASA would like to thank you for your support regarding the proposed changes.

comment 1133 comment by: *SAS*

Supported

response Noted
ASA would like to thank you for your support regarding the proposed changes.

comment 1311 comment by: *Swedish Transport Agency*



response	Supported. Noted EASA would like to thank you for your support regarding the proposed changes.
comment	1440 comment by: <i>Norwegian Air (Norwegian Air Norway, Norwegian Air International, Norwegian Air UK and Norwegian Air Shuttle)</i> Supported.
response	Noted EASA would like to thank you for your support regarding the proposed changes.
comment	1526 comment by: <i>Wideroe Flyveselskap AS</i> Supported.
response	Noted EASA would like to thank you for your support regarding the proposed changes.
comment	1643 comment by: <i>Atle Vivas</i> Supported
response	Noted EASA would like to thank you for your support regarding the proposed changes.

AMC1 ADR.OPS.B.036(b)(1)(ii) Operations on specially prepared winter runways p. 144

comment	690 comment by: <i>CAA Norway</i> AMC1 ADR.OPS.B.036(b)(1)(ii) Operations on specially prepared winter runways COMMENT: Supported
response	Noted EASA would like to thank you for your support regarding the proposed changes.
comment	1134 comment by: <i>SAS</i> Supported
response	Noted



EASA would like to thank you for your support regarding the proposed changes.

comment 1312 comment by: Swedish Transport Agency
Supported.

response Noted
EASA would like to thank you for your support regarding the proposed changes.

comment 1441 comment by: Norwegian Air (Norwegian Air Norway, Norwegian Air International, Norwegian Air UK and Norwegian Air Shuttle)
Supported.

response Noted
EASA would like to thank you for your support regarding the proposed changes.

comment 1645 comment by: Atle Vivas
Supported

response Noted
EASA would like to thank you for your support regarding the proposed changes.

GM1 ADR.OPS.B.036(b)(1)(iii) Operations on specially prepared winter runways p. 144

comment 356 comment by: Avinor AS
PROPOSED REVISION:
MANAGEMENT OF LOOSE MATERIALS **SAND OR GRIT**
Excess material **sand or grit** or material **sand or grit** no longer adhering to the surface can reduce aircraft braking performance and could be ingested by engines. When using sand or grit, it is essential that the aerodrome operator monitors the situation and removes loose material **sand or grit** from the operational surfaces as soon as possible. Excess material **sand or grit** can be efficiently removed by **mechanical** sweeping and blowing.
RATIONALE: Replace “materials” with “sand or grit” to avoid confusion with the term “materials” in AMC1 ADR.OPS.B.035(a)(2) in which this is de-icing chemicals.

response Accepted

comment 691 comment by: CAA Norway
GM1 ADR.OPS.B.036(b)(1)(iii) Operations on specially prepared winter runways
COMMENT: Supported



response	Noted EASA would like to thank you for your support regarding the proposed changes.	
comment	1135	comment by: SAS
	Supported	
response	Noted EASA would like to thank you for your support regarding the proposed changes.	
comment	1313	comment by: Swedish Transport Agency
	Supported.	
response	Noted EASA would like to thank you for your support regarding the proposed changes.	
comment	1442	comment by: Norwegian Air (Norwegian Air Norway, Norwegian Air International, Norwegian Air UK and Norwegian Air Shuttle)
	Supported.	
response	Noted EASA would like to thank you for your support regarding the proposed changes.	
comment	1528	comment by: Wideroe Flyveselskap AS
	Supported.	
response	Noted EASA would like to thank you for your support regarding the proposed changes.	
comment	1647	comment by: Atle Vivas
	Supported	
response	Noted EASA would like to thank you for your support regarding the proposed changes.	

AMC1 ADR.OPS.B.036(b)(1)(iv) Operations on specially prepared winter runways p. 145

comment	692	comment by: CAA Norway
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	AMC1 ADR.OPS.B.036(b)(1)(iv) Operations on specially prepared winter runways COMMENT: Supported	
response	Noted EASA would like to thank you for your support regarding the proposed changes.	
comment	1136	comment by: SAS
	Supported	
response	Noted EASA would like to thank you for your support regarding the proposed changes.	
comment	1314	comment by: Swedish Transport Agency
	Supported.	
response	Noted EASA would like to thank you for your support regarding the proposed changes.	
comment	1444	comment by: Norwegian Air (Norwegian Air Norway, Norwegian Air International, Norwegian Air UK and Norwegian Air Shuttle)
	Supported.	
response	Noted EASA would like to thank you for your support regarding the proposed changes.	
comment	1529	comment by: Wideroe Flyveselskap AS
	Supported.	
response	Noted EASA would like to thank you for your support regarding the proposed changes.	
comment	1530	comment by: Wideroe Flyveselskap AS
	Supported.	
response	Noted EASA would like to thank you for your support regarding the proposed changes.	
comment	1649	comment by: Atle Vivas



response	Supported
	Noted
	EASA would like to thank you for your support regarding the proposed changes.

GM1 ADR.OPS.B.036(b)(1)(iv) Operations on specially prepared winter runways

p. 145

comment	500	comment by: AIRBUS
	In the second paragraph, please clarify by rewording to “should be reported with an appropriately downgraded RWYCC”.	
response	Accepted	

comment	693	comment by: CAA Norway
	GM1 ADR.OPS.B.036(b)(1)(iv) Operations on specially prepared winter runways COMMENT: Supported	
response	Noted EASA would like to thank you for your support regarding the proposed changes.	

comment	1137	comment by: SAS
	Supported	
response	Noted EASA would like to thank you for your support regarding the proposed changes.	

comment	1315	comment by: Swedish Transport Agency
	Supported.	
response	Noted EASA would like to thank you for your support regarding the proposed changes.	

comment	1445	comment by: Norwegian Air (Norwegian Air Norway, Norwegian Air International, Norwegian Air UK and Norwegian Air Shuttle)
	Supported.	
response	Noted EASA would like to thank you for your support regarding the proposed changes.	



comment	1651	comment by: <i>Atle Vivas</i>
	Supported	
response	Noted	
	EASA would like to thank you for your support regarding the proposed changes.	

AMC1 ADR.OPS.B.036(b)(2) Operations on specially prepared winter runways	p. 145-146
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comment	694	comment by: <i>CAA Norway</i>
	AMC1 ADR.OPS.B.036(b)(2) Operations on specially prepared winter runways	
	COMMENT: Supported	
response	Noted	
	EASA would like to thank you for your support regarding the proposed changes.	

comment	1138	comment by: <i>SAS</i>
	Supported	
response	Noted	
	EASA would like to thank you for your support regarding the proposed changes.	

comment	1316	comment by: <i>Swedish Transport Agency</i>
	Supported.	
response	Noted	
	EASA would like to thank you for your support regarding the proposed changes.	

comment	1355	comment by: <i>Widerøe Flyveselskap AS</i>
	AMC1 ADR.OPS.B.036.(b)(2) Operation on specially prepared winter runways RMT.0704 P. 145	
	Widerøe's Flyveselskap AS support the use of aircraft data for calculation of actual braking performance.	
	However, it is important that the regulation is sufficiently flexible to allow different approaches for computation of the actual aircraft performance.	
	Modern aircrafts like the Embraer E2-190 Jet records approximately 2000 flight data parameters, and a selection of these parameters are used for computation of highly accurate wheel braking frictions using the aircraft manufacturers specially designed software. In example was the wheel friction computed to be 0,83 on a landing where	

the Braking Action was reported as 3 at Tromsø Airport, ENTC, in December 2018. This performance corresponded well to the actual landing as the aircraft vacated runway 01 at intersection D, which means the aircraft used a landing distance of approximately 1150 meters. In this case the aircraft data indicate that the actual friction was in fact better than what was reported by the airport.

Older airframes like the legacy DASH-8 series 100/200/300 records 200-300 parameters, and direct computation of wheel friction is not possible. However, highly accurate G-force measurement is recorded and can be used for determination of the actual Braking Action felt by the aircraft during landing.

Furthermore, the ADS-B mandate means that older airframes must replace the FMS, Flight Management System, with more capable equipment that calculates actual position without any latency. Internal recordings in some FMS stores positions, ground speeds and airspeeds with an accuracy of 5 decimals once every second. These data can be used for accurate computation of the actual landing run. Comparing this result with the stored pre-landing calculation can determine if the actual braking performance was better, equal or worse than the reported Braking Action.

With a flexible regulation, new innovative and inexpensive avionics can be invented that make computation of actual landing performance possible also for older and less capable airframes than the modern marvels produced by Airbus, Boeing and Embraer.

response Noted

comment 1447 comment by: *Norwegian Air (Norwegian Air Norway, Norwegian Air International, Norwegian Air UK and Norwegian Air Shuttle)*

Supported.

response Noted

EASA would like to thank you for your support regarding the proposed changes.

comment 1532 comment by: *Wideroe Flyveselskap AS*

Supported.

response Noted

EASA would like to thank you for your support regarding the proposed changes.

comment 1653 comment by: *Atle Vivas*

Supported

response Noted



EASA would like to thank you for your support regarding the proposed changes.

GM1 ADR.OPS.B.036(b)(2) Operations on specially prepared winter runways

p. 146

comment 344 comment by: Avinor AS

COMMENT: The sentence 'The analysis may be performed through a third party or through its own resources.' Contains an ambiguous reference. Suggest substituting the word 'its' with "Aeroplane manufacturer".

PROPOSED REVISION: The analysis may be performed through a third party or through its own resources **the aeroplane manufacturer**.

RATIONALE: Clarification is required

COMMENT: The same GM should be duplicated in the appropriate regulations that apply to the aeroplane operator.

response Accepted

comment 811 comment by: CAA Norway

GM1 ADR.OPS.B.036(b)(2) Operations on specially prepared winter runways

COMMENT: The sentence 'The analysis may be performed through a third party or through its own resources.' Seems to be unclear. Suggest substituting the word 'its' with the entity in question.

RATIONALE: Clarification is required

response Accepted

The text has been revised to provide more clarity.

comment 1139 comment by: SAS

Supported

response Noted

EASA would like to thank you for your support regarding the proposed changes.

comment 1317 comment by: Swedish Transport Agency

COMMENT: The sentence 'The analysis may be performed through a third party or through its own resources.' Seems to be unclear. Suggest substituting the word 'its' with the entity in question.

RATIONALE: Clarification is required

response Accepted



The text has been revised to provide more clarity.

comment

1448

comment by: *Norwegian Air (Norwegian Air Norway, Norwegian Air International, Norwegian Air UK and Norwegian Air Shuttle)*

Supported.

response

Noted

EASA would like to thank you for your support regarding the proposed changes.

comment

1655

comment by: *Atle Vivas*

GM1 ADR.OPS.B.036(b)(2) Operations on specially prepared winter runways

COMMENT: The sentence 'The analysis may be performed through a third party or through its own resources.' Seems to be unclear. Suggest substituting the word 'its' with the entity in question.

RATIONALE: Clarification is required

response

Accepted

The text has been revised to provide more clarity.

AMC1 ADR.OPS.B.036(b)(3) Operations on specially prepared winter runways

p. 146

comment

345

comment by: *Avinor AS*

COMMENT: Comprehensive analysis by Avinor of runway friction data indicate that a statistical level of confidence of 90 percent is achievable and should be set as a lower limit. 95 percent should be an operational objective.

RATIONALE: Setting the statistical level of confidence extremely high to 95 percent is at odds with to how it is allowed to use a mix of subjective methodology to assess the conditions in order to arrive at the reported RWYCC. Allowing 90 percent will create better balance between the assessment methods and the accuracy of the results. By setting the level at 90 percent aerodrome staff will work towards an objective they know is achievable. Safety records for Avinor airports going back 10 years indicate no safety occurrences involving aircraft operating on contaminated runways where runway assessment and reporting has been a factor. The statistical level of confidence the last 5-6 years of this period has been around 90 percent.

response

Not accepted

A 95 % statistical level of confidence is considered appropriate.

comment

501

comment by: *AIRBUS*

This AMC does not express the intent clearly. Airbus suggests to reword to:



	<p>“In order to demonstrate the capability to establish the runway surface condition in accordance with a given RWYCC, the aerodrome operator should demonstrate with a statistical level of confidence of 95 per cent that the actual braking action indicated by aeroplane data is consistently the same or better than that expected for the reported RWYCC.”</p>
response	Accepted
comment	<p>812 comment by: CAA Norway</p> <p>AMC1 ADR.OPS.B.036(b)(3) Operations on specially prepared winter runways COMMENT: Supported</p>
response	<p>Noted</p> <p>EASA would like to thank you for your support regarding the proposed changes.</p>
comment	<p>1140 comment by: SAS</p> <p>Supported</p>
response	<p>Noted</p> <p>EASA would like to thank you for your support regarding the proposed changes.</p>
comment	<p>1318 comment by: Swedish Transport Agency</p> <p>Supported.</p>
response	<p>Noted</p> <p>EASA would like to thank you for your support regarding the proposed changes.</p>
comment	<p>1449 comment by: Norwegian Air (Norwegian Air Norway, Norwegian Air International, Norwegian Air UK and Norwegian Air Shuttle)</p> <p>Supported.</p>
response	<p>Noted</p> <p>EASA would like to thank you for your support regarding the proposed changes.</p>
comment	<p>1533 comment by: Wideroe Flyveselskap AS</p> <p>Supported.</p>
response	<p>Noted</p> <p>EASA would like to thank you for your support regarding the proposed changes.</p>



comment	1659	comment by: <i>Atle Vivas</i>
	Supported	
response	Noted	
	EASA would like to thank you for your support regarding the proposed changes.	

GM1 ADR.OPS.B.036(b)(3) Operations on specially prepared winter runways	p. 146-147
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comment	502	comment by: <i>AIRBUS</i>
	In the second paragraph, “the number of landings” suggests that all landings on a specially prepared winter runway need to be analysed. That is not the intent as explicated in the third paragraph.	
	Airbus suggests to reword to “a representative number”.	
response	Accepted	
	The proposed change has been included in the third paragraph.	

comment	813	comment by: <i>CAA Norway</i>
	GM1 ADR.OPS.B.036(b)(3) Operations on specially prepared winter runways	
	COMMENT: Supported	
response	Noted	
	EASA would like to thank you for your support regarding the proposed changes.	

comment	1141	comment by: <i>SAS</i>
	Supported	
response	Noted	
	EASA would like to thank you for your support regarding the proposed changes.	

comment	1319	comment by: <i>Swedish Transport Agency</i>
	Supported.	
response	Noted	
	EASA would like to thank you for your support regarding the proposed changes.	

comment	1450	comment by: <i>Norwegian Air (Norwegian Air Norway, Norwegian Air International, Norwegian Air UK and Norwegian Air Shuttle)</i>
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response	Supported. Noted EASA would like to thank you for your support regarding the proposed changes.
comment	1535 comment by: Wideroe Flyveselskap AS Supported.
response	Noted EASA would like to thank you for your support regarding the proposed changes.
comment	1660 comment by: Atle Vivas Supported
response	Noted EASA would like to thank you for your support regarding the proposed changes.

GM1 ADR.OPS.B.036(b)(4) Operations on specially prepared winter runways

p. 147

comment	814 comment by: CAA Norway GM1 ADR.OPS.B.036(b)(4) Operations on specially prepared winter runways COMMENT: Supported
response	Noted EASA would like to thank you for your support regarding the proposed changes.
comment	1142 comment by: SAS Supported
response	Noted EASA would like to thank you for your support regarding the proposed changes.
comment	1320 comment by: Swedish Transport Agency Supported.
response	Noted EASA would like to thank you for your support regarding the proposed changes.



comment	1451	comment by: Norwegian Air (Norwegian Air Norway, Norwegian Air International, Norwegian Air UK and Norwegian Air Shuttle)
	Supported.	
response	Noted	
	EASA would like to thank you for your support regarding the proposed changes.	
comment	1536	comment by: Wideroe Flyveselskap AS
	Supported.	
response	Noted	
	EASA would like to thank you for your support regarding the proposed changes.	
comment	1662	comment by: Atle Vivas
	Supported	
response	Noted	
	EASA would like to thank you for your support regarding the proposed changes.	

AMC1 ADR.OPS.B.036(c) Operations on specially prepared winter runways

p. 147

comment	503	comment by: AIRBUS
	Paragraph (c) requires to “prepare” a report. It would be more relevant to state whom it would have to be made available to. This should include the aeroplane operators.	
response	Accepted	
	The sentence has been changed to read ‘prepare and make available’.	
comment	728	comment by: AIRBUS
	Airbus suggests to specify a systematic monitoring by modifying Paragraph (a) as follows:	
	(a) establish a system of performance indicators to systematically monitor the effectiveness of the procedures which are applied to support operations on specially prepared winter runways;	
	<u>Justification:</u> The intent of the monitoring is to capture the exceptional cases in which the preparation of the runway is not successful, or where the airport personnel was not able to detect that conditions were degraded in order to permit continuous	



	improvement over time. This is why data for every landing must be collected and analysed.
response	Accepted
comment	815 comment by: CAA Norway AMC1 ADR.OPS.B.036(c) Operations on specially prepared winter runways COMMENT: Supported
response	Noted EASA would like to thank you for your support regarding the proposed changes.
comment	1143 comment by: SAS Supported
response	Noted EASA would like to thank you for your support regarding the proposed changes.
comment	1321 comment by: Swedish Transport Agency Supported.
response	Noted EASA would like to thank you for your support regarding the proposed changes.
comment	1452 comment by: Norwegian Air (Norwegian Air Norway, Norwegian Air International, Norwegian Air UK and Norwegian Air Shuttle) Supported.
response	Noted EASA would like to thank you for your support regarding the proposed changes.
comment	1537 comment by: Wideroe Flyveselskap AS Supported.
response	Noted EASA would like to thank you for your support regarding the proposed changes.
comment	1663 comment by: Atle Vivas Supported



response

Noted

EASA would like to thank you for your support regarding the proposed changes.

GM1 ADR.OPS.B.036(c) Operations on specially prepared winter runways

p. 147-148

comment

576

comment by: Zurich Airport

It seems that the monitoring is associated with a great effort. It should be seen relatively to the safety benefit.

response

Noted

comment

729

comment by: AIRBUS

Airbus suggests to specify a systematic monitoring by adding the following sentence:

MONITORING PROGRAMME — PERFORMANCE INDICATORS

The aerodrome should gather and analyse aircraft data from every landing of each airline participating in the monitoring programme that occurred on a runway that was reported as a Specially Prepared Winter Runway at the time of the landing.

The following performance indicators could be used...

response

Not accepted

The word 'systems' covers the need for a systematic monitoring.

comment

816

comment by: CAA Norway

GM1 ADR.OPS.B.036(c) Operations on specially prepared winter runways

COMMENT: The present wording is unclear, and needs to be rewritten. A specific proposal is provided below.

GM1 ADR.OPS.B.036(c) Operations on specially prepared winter runways (RMT.0704) CAA NORWAY PROPOSED VERSION

5. *MONITORING PROGRAMME — PERFORMANCE INDICATORS (PIs)*

6. *The following performance indicators could be used in order to monitor the success in correctly assessing and reporting the runway surface condition:*

7. (a) *Proportion of landings on reported RWYCC 4 vs total number of landings on Specially Prepared Winter runways.*

The indicator aims to measure the frequency of operations on Specially Prepared Winter runways; where no downgrade has been used.

(b) Proportion of landings identified under (a) where the braking action computed based on aeroplane data was one RWYCC worse than the RCRs issued by the aerodrome operator;



(c) Proportion of landings identified under (a) where the braking action computed based on aeroplane data was two RWYCCs worse than the RCRs issued by the aerodrome operator.

The indicators (b) and (c) give an indication of the quality of runway surface condition assessment.

(d) Number of movements on a contaminated runway (runway condition code 1 – 4) per total number of movements. This number provides an indication of the exposure of the aerodrome to winter conditions. Information concerning the contamination of the runway can be derived from the RCRs.

Performance indicators should be recorded pr month.

Rationale
The proposed GM provides further information on the different performance indicators that could be established in order to monitor the effectiveness of the procedures.

response Accepted

comment 1144 comment by: SAS

Supported

response Noted

EASA would like to thank you for your support regarding the proposed changes.

comment 1322 comment by: Swedish Transport Agency

COMMENT: The present wording is unclear, and needs to be rewritten. A specific proposal is provided in Attachment to this paper.

response Accepted

comment 1664 comment by: Atle Vivas

GM1 ADR.OPS.B.036(c) Operations on specially prepared winter runways
COMMENT: The present wording is unclear, and needs to be rewritten. A specific proposal is provided in Attachment to this paper.

response Accepted

AMC1 ADR.OPS.B.037(a) Assessment of runway surface condition and assignment of runway condition code p. 148-149

comment 140 comment by: Aerodrome safety regulation departement



	<p>In new AMC1 CAT.POL.A.200 General and AMC1 CAT.OP.MPA.311 Runway braking action reporting of NPA 2016-11 amending R UE 965/2012, the runway condition assessment matrix (RCAM) is referred to as part of ICAO Doc 9981 PANS-ADR whereas some differences have been introduced by RMT 704 regarding Specially prepared winter runway and the new descriptor Slipplery wet.</p> <p>For better consistency, the requirements of R UE 965/2012 should be aligned with those developed in R UE 139/2014.</p>
response	Accepted
comment	<p>348 comment by: <i>Avinor AS</i></p> <p>COMMENT: The temperature limitations of -15 degrees C has not been sufficiently verified as a significant value for RWYCC 4, and should be reconsidered.</p> <p>RATIONALE: The outside temperature is just one part of the factors contributing to conditions on a compacted snow runway. Dew-point and surface temperature are also affecting the assessment. Dry conditions above -15C (e.g. -8C) may result in the same stopping performance as more humid conditions at -15C.</p>
response	Noted
comment	<p>379 comment by: <i>Federal Office of Civil Aviation (FOCA), Switzerland</i></p> <p><i>Comment FOCA on AMC1 ADR.OPS.B.037(a):</i></p> <p>Based on the principle that all available information shall be taken into account in the overall assessment of runway surface condition FOCA proposes to include μ (mu) values measured by friction measuring devices in the RCAM for downgrading purposes.</p> <p>Proposed new text: Add a new column for measured coefficient μ (mu) values in RCAM.</p>
response	<p>Not accepted</p> <p>Friction measurements are not correlated with aeroplane performance data; therefore, they are not included in the RCAM. Nevertheless, they can be used in a comparative way to support together with other means the upgrade or downgrade of RWYCC.</p>
comment	<p>452 comment by: <i>TopP Oy</i></p> <p>Attachment #8</p> <p><u>Current page 148 item a):</u> “... (a) The aerodrome operator should use the following RCAM in order to assign the RWYCC: ...”</p> <p><u>Proposed change (add new item b):</u> “... (a) The aerodrome operator should use the following RCAM in order to assign the RWYCC:</p>

(b) Following RCAM matrix may be supplemented with measured friction values column by aerodrome operator providing that: friction measuring device meets the established standards, friction measurement device is properly operated, aerodrome operator provides sufficient evidence of the friction ratio to RWYCC and method is agreed by the state. ...”

Rationale:

This is both safety- and economic issue. There is evidence, that in many cases solely RCAM based RWYCC assessment would lead to too optimistic value. There is also evidence, that often RWYCC values 0 and 1 are too pessimistic and thus causing unnecessary irregularity to operations.

In Finland we have decades of experience in using BV11 (SKH) friction measuring device as one mean of runway condition assessment. These measurements can be combined to good safety record. This has been achieved by proper use of the friction measuring device. Proper use is defined as:

- device meeting the established standards
- proper initial user training
- annual user refreshment training
- weekly calibration program of each device
- annual overhaul program of each device
- respect of the device operational envelope eq. hard contaminants (wet, frost, compacted snow and ice) and maximum depth per each thick contaminant (water, slush, wet snow and dry snow)
- method is agreed by the state

We have 10 years runway report data saved in a database with about 45000 annual friction measurements (runway thirds). Based on this data it is evident, that contaminants of depth 3 mm or less are often considerably more slippery than RWYCC=5 eq. to WET. In many cases the actual condition has been as low as RWYCC=2 or 3 (See attached diagram 4).

It has also been studied, that even a drop of one RWYCC class may lead to a situation, where inflight landing margins are insufficient to cover safe landing (LDA limited landing). In take-off performance calculation margins are zero (ASDA, TODA or TORA limited runway limited take-off).

response

Not accepted

Friction measurements are not correlated with aeroplane performance data; therefore, they are not included in the RCAM. Nevertheless, they can be used in a comparative way to support together with other means the upgrade or downgrade of RWYCC.

comment

453

comment by: TopP Oy

Current page 148 (a) RCAM table Downgrade assessment criteria column title:
 “... Aeroplane deceleration or directional control observation ...”



	<p><u>Proposed change:</u> “... <i>Inspection vehicle</i> deceleration or directional control observation ...”</p> <p><u>Rationale:</u> Plain text on pages 149(a) as well as 154(3)(ii) refers to inspection vehicle control and deceleration behaviour as one mean to determine runway condition code RWYCC.</p> <p>RCAM table on page 148 defines RWYCC DOWNGRADE criteria column titled as “Aeroplane deceleration and directional control”. This column clearly is guidance for pilots assessing braking action, not for the runway inspector.</p> <p>Inspection vehicle behaviour can also act as guidance for the inspector, when assessing RWYCC class. This guidance is valuable is would be available if the column title would be changed as proposed.</p> <p>If so, should there be some specifications about the inspection vehicle equipment and level of automation: automatic barking system, electronic vehicle control system etc.?</p>
response	<p>Noted</p> <p>The right part of the RCAM is meant to be used by the flight crews and not by the runway inspectors.</p>

comment	<p>550 comment by: <i>Finavia Oyj</i></p> <p>Attachment #9</p> <p><u>Current page 148 item a):</u> “... (a) The aerodrome operator should use the following RCAM in order to assign the RWYCC: ...”</p> <p><u>Proposed change (add new item b):</u> “... (a) The aerodrome operator should use the following RCAM in order to assign the RWYCC:</p> <p><u>(b) Following RCAM matrix may be supplemented with measured friction values column by aerodrome operator providing that: friction measuring device meets the established standards, friction measurement device is properly operated, aerodrome operator provides sufficient evidence of the friction ratio to RWYCC and method is agreed by the state. ...”</u></p> <p><u>Rationale:</u> This is both safety- and economic issue. There is evidence, that in many cases solely RCAM based RWYCC assessment would lead to too optimistic value. There is also evidence, that often RWYCC values 0 and 1 are too pessimistic and thus causing unnecessary irregularity to operations.</p> <p>In Finland we have decades of experience in using BV11 (SKH) friction measuring device as one mean of runway condition assessment. These measurements can be</p>
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combined to good safety record. This has been achieved by proper use of the friction measuring device. Proper use is defined as:

- device meeting the established standards
- proper initial user training
- annual user refreshment training
- weekly calibration program of each device
- annual overhaul program of each device
- respect of the device operational envelope eq. hard contaminants (wet, frost, compacted snow and ice) and maximum depth per each thick contaminant (water, slush, wet snow and dry snow)
- method is agreed by the state

We have 10 years runway report data saved in a database with about 45000 annual friction measurements (runway thirds). Based on this data it is evident, that contaminants of depth 3 mm or less are often considerably more slippery than RWYCC=5 eq. to WET. In many cases the actual condition has been as low as RWYCC=2 or 3 (See attached diagram 4).

It has also been studied, that even a drop of one RWYCC class may lead to a situation, where inflight landing margins are insufficient to cover safe landing (LDA limited landing). In take-off performance calculation margins are zero (ASDA, TODA or TORA limited runway limited take-off).

response

Not accepted

Friction measurements are not correlated with aeroplane performance data; therefore, they are not included in the RCAM. Nevertheless, they can be used in a comparative way to support together with other means the upgrade or downgrade of RWYCC.

comment

551

comment by: *Finavia Oyj*

Current page 148 (a) RCAM table Downgrade assessment criteria column title:

"... Aeroplane deceleration or directional control observation ..."

Proposed change:

*"... **Inspection vehicle** deceleration or directional control observation ..."*

Rationale:

Plain text on pages 149(a) as well as 154(3)(ii) refers to inspection vehicle control and deceleration behaviour as one mean to determine runway condition code RWYCC.

RCAM table on page 148 defines RWYCC DOWNGRADE criteria column titled as "Aeroplane deceleration and directional control". This column clearly is guidance for pilots assessing braking action, not for the runway inspector.

Inspection vehicle behaviour can also act as guidance for the inspector, when assessing RWYCC class. This guidance is valuable is would be available if the column title would be changed as proposed.



response	<p>If so, should there be some specifications about the inspection vehicle equipment and level of automation: automatic barking system, electronic vehicle control system etc.?</p> <p>Noted</p> <p>The right part of the RCAM is meant to be used by the flight crews and not by the runway inspectors.</p>
comment	<p>686 comment by: Amsterdam Airport Schiphol</p> <p>Ref. AMC1 ADR.OPS.B.037(a):</p> <p>Since AMC1 ADR.OPS.B.037(a) only contains a single point, the indication '(a)' can be deleted from the proposed text.</p>
response	<p>Accepted</p>
comment	<p>817 comment by: CAA Norway</p> <p>AMC1 ADR.OPS.B. AMC1 ADR.OPS.B.037(a) Assessment of runway surface condition and assignment of runway condition code (RMT.0704) RUNWAY CONDITION ASSESSMENT MATRIX (RCAM)</p> <p>The -15 °C criterion</p> <p>COMMENT: Comment 113, 114, 257, 258 in Comment-Response Document 2016-11, Appendix 4 to Opinion No 02/2019 were not accepted as far it applied to the -15 °C criterion. The following rationale were given.</p> <p style="padding-left: 40px;"><i>The -15 °C criterion is kept as a conservative value until research or supporting data will justify an alternative solution.</i></p> <p>The -15 °C criterion is arbitrarily set and it has not been substantiated by any research. There are however supporting data and there is reason to believe that the supporting data has not been given the appropriate consideration.</p> <p>There is reason to believe that the proper physics on how horizontal forces are generated in the tyre has not been part of previous discussions on the subject. That is that the tyre need to have indentors into the tyre in order to develop the horizontal forces needed to provide a grip in the non-moving contact area. It is the micro movement (slippage) of the tyre in the contact area that provides the grip.</p> <p>Historic data support that the -15 °C criterion is equal to <i>sanded packed snow</i>. It is evident that Sanded packed snow and Compacted snow below -15 °C has been associated with the same aeroplane</p>



performance level from sometime between 1973 and 1977 and in the 1980's and 1990's.

The 'combined' opinion from the RMT process should identify an activity where the proper physics is applied on a sanded compacted snow surface.

Furthermore, EASA should facilitate/make arrangements with the Industry, for the use of data gathered by the now commercial available technology of using an aircraft as a sensor. (Airbus Safety first #26, July 2018). This should be used to validate both the -15 °C criterion and to validate the sanded compacted snow criterion.

When providing the opinion from RMT.0704 the opinion from RMT.0296 the above should be taken into account and an activity involving "aircraft as a sensor" in order to validate both the -15 °C criterion and the performance level of sanded compacted snow. This may need some additional procedures than those following from normal operations.

Based upon this it should be permissible to upgrade sanded compact snow from RWYCC 3 to RWYCC4 provided that specific procedures for application, continued monitoring and verification of its effectiveness can be developed and applied.

RATIONALE:

1. The physics on how a tyre generates grip should be applied to **sanded compacted snow**.
2. Using Aircraft as a sensor on Contaminated Runways. Airbus, Safety first #26, July 2018.
3. Historical data from Transport Canada.

An alternative solution is proposed and the supporting data for the criterion are: The -15 °C criterion related to compacted snow was introduced and related to the James Brake Index (Canada) in the early or mid-1970's.

The -15 °C temperature criterion for compacted snow is not in agreement with available experimental observations.

Experimental data ranging from 1965 to 1998 (all available) and for temperatures from -13.3 °C to -0.1°C show that no effect of surface temperature on the friction coefficient experienced by the aircraft were evident.

Conclusions from first gathered dataset (1959) through data gathered in the Joint Winter Runway Friction Measurement Program (JWRFMP) to ESDU modelling (2015) on available dataset (1959 – 1969) are coherent and non-supportive of the -15 °C temperature criterion.

There is not a large amount of data available from which paired temperature data and aeroplane performance data are available. All available paired data are above the -15 °C.

It is not evident how the -15 °C criterion has supporting data to warrant a shift in aeroplane performance on compacted snow as there are no paired temperatures at or below the -15 °C threshold temperature.

Transport Canada removed the -15 °C Criterion from the AIP subsequent the findings published in the 2004 report TP 14498E, *Friction Coefficients for various Winter Surfaces*.



	NOTE: Changes to the RCAM Format MAY affect Regulation 2017/373 with associated Annexes. WILL also affect 965/2012 (Opinion No 2/2019)
response	Noted EASA would like to thank you for your support regarding the proposed changes.
comment	1453 comment by: <i>Norwegian Air (Norwegian Air Norway, Norwegian Air International, Norwegian Air UK and Norwegian Air Shuttle)</i>
	Supported.
response	Noted EASA would like to thank you for your support regarding the proposed changes.
comment	1538 comment by: <i>Wideroe Flyveselskap AS</i>
	Supported.
response	Noted EASA would like to thank you for your support regarding the proposed changes.
comment	1665 comment by: <i>Atle Vivas</i> AMC1 ADR.OPS.B.037(a) Assessment of runway surface condition and assignment of runway condition code COMMENT: Supported NOTE: Changes to the RCAM Format MAY affect Regulation 2017/373 with associated Annexes. WILL also affect 965/2012 (Opinion No 2/2019)
response	Noted EASA would like to thank you for your support regarding the proposed changes.
comment	1672 comment by: <i>Atle Vivas</i> AMC1 ADR.OPS.B.037(a) Assessment of runway surface condition and assignment of runway condition code (RMT.0704) RUNWAY CONDITION ASSESSMENT MATRIX (RCAM) The -15 °C criterion COMMENT: Comment 113, 114, 257, 258 in Comment-Response Document 2016-11, Appendix 4 to Opinion No 02/2019 were not accepted as far it applied to the -15 °C criterion. The following rationale were given. <i>The -15 °C criterion is kept as a conservative value until research or supporting data will justify an alternative solution.</i> <i>The -15 °C criterion is arbitrarily set and it has not been substantiated by any research. There are however supporting data and there is reason to believe that the supporting data has not been given the appropriate consideration.</i>

There is reason to believe that the proper physics on how horizontal forces are generated in the tyre has not been part of previous discussions on the subject. That is that the tyre need to have indentors into the tyre in order to develop the horizontal forces needed to provide a grip in the non-moving contact area. It is the micro movement (slippage) of the tyre in the contact area that provides the grip.

Historic data support that the $-15\text{ }^{\circ}\text{C}$ criterion is equal to *sanded packed snow*. It is evident that Sanded packed snow and Compacted snow below $-15\text{ }^{\circ}\text{C}$ has been associated with the same aeroplane performance level from sometime between 1973 and 1977 and in the 1980's and 1990's.

The 'combined' opinion from the RMT process should identify an activity where the proper physics is applied on a sanded compacted snow surface.

Furthermore, EASA should facilitate/make arrangements with the Industry, for the use of data gathered by the now commercial available technology of using an aircraft as a sensor. (Airbus Safety first #26, July 2018). This should be used to validate both the $-15\text{ }^{\circ}\text{C}$ criterion and to validate the sanded compacted snow criterion.

When providing the opinion from RMT.0704 the opinion from RMT.0296 the above should be taken into account and an activity involving "aircraft as a sensor" in order to validate both the $-15\text{ }^{\circ}\text{C}$ criterion and the performance level of sanded compacted snow. This may need some additional procedures than those following from normal operations.

Based upon this it should be permissible to upgrade sanded compact snow from RWYCC 3 to RWYCC4 provided that specific procedures for application, continued monitoring and verification of its effectiveness can be developed and applied.

RATIONALE:

1. The physics on how a tyre generates grip should be applied to **sanded compacted snow**.
2. Using Aircraft as a sensor on Contaminated Runways. Airbus, Safety first #26, July 2018.
3. Historical data from Transport Canada.

An alternative solution is proposed and the supporting data for the criterion are:

The $-15\text{ }^{\circ}\text{C}$ criterion related to compacted snow was introduced and related to the James Brake Index (Canada) in the early or mid-1970's.

The $-15\text{ }^{\circ}\text{C}$ temperature criterion for compacted snow is not in agreement with available experimental observations.

Experimental data ranging from 1965 to 1998 (all available) and for temperatures from $-13.3\text{ }^{\circ}\text{C}$ to $-0.1\text{ }^{\circ}\text{C}$ show that no effect of surface temperature on the friction coefficient experienced by the aircraft were evident.

Conclusions from first gathered dataset (1959) through data gathered in the Joint Winter Runway Friction Measurement Program (JWRFMP) to ESDU modelling (2015) on available dataset (1959 – 1969) are coherent and non-supportive of the $-15\text{ }^{\circ}\text{C}$ temperature criterion.

There is not a large amount of data available from which paired temperature data and aeroplane performance data are available. All available paired data are above the $-15\text{ }^{\circ}\text{C}$.

It is not evident how the $-15\text{ }^{\circ}\text{C}$ criterion has supporting data to warrant a shift in aeroplane performance on compacted snow as there are no paired temperatures at or below the $-15\text{ }^{\circ}\text{C}$ threshold temperature.

Transport Canada removed the $-15\text{ }^{\circ}\text{C}$ Criterion from the AIP subsequent the findings published in the 2004 report TP 14498E, *Friction Coefficients for various Winter Surfaces*.



	<p style="text-align: center;">Sanded compacted snow.</p> <p style="text-align: center;">An investigation into the subject reveals that in Canada:</p> <p>In 1973:</p> <table border="0"> <tr> <td>Sanded Packed snow or ice</td> <td>JB1 12</td> </tr> <tr> <td>Compacted snow</td> <td>JB1 6-8</td> </tr> </table> <p>In 1977:</p> <table border="0"> <tr> <td>Sanded packed snow</td> <td>JB1 0.4</td> </tr> <tr> <td>Compacted snow below -15 °C</td> <td>JB1 0.4 – 0.5</td> </tr> <tr> <td>Compacted snow above -15 °C</td> <td>JB1 0.2 – 0.25</td> </tr> </table> <p>In 1980:</p> <p><i>Sanded packed snow and Compacted snow below -15 °C are combined into: Runway is sand packed snow cold. below -15 °C</i></p> <p>FAA in their <i>Winter Operations Guidance for Air Carriers</i> (1982 and 1990) refer to this (1980) sanded/temperature combined term. Objective: <i>..the material is intended to bring together interrelated information and guidance under one cover for your use and ready reference.</i></p> <p>It is evident from this that <i>Sanded packed snow and Compacted snow below -15 °C</i> has been associated with the same aeroplane performance level from sometime between 1973 and 1977 and in the 1980's and 1990's. The historic Transport Canada AIP information give more information into this relationship and show it to be equal at the low end of the Compacted snow below -15°C 'Equivalent JBI band'. In the updated Table 4a published in the 2004 report (see attachment) the interrelation between <i>Sanded packed snow, Bare packed snow and Sanded ice and Bare ice</i> is given as <i>Expected Range of CRFIs by Surface Type.</i></p>	Sanded Packed snow or ice	JB1 12	Compacted snow	JB1 6-8	Sanded packed snow	JB1 0.4	Compacted snow below -15 °C	JB1 0.4 – 0.5	Compacted snow above -15 °C	JB1 0.2 – 0.25
Sanded Packed snow or ice	JB1 12										
Compacted snow	JB1 6-8										
Sanded packed snow	JB1 0.4										
Compacted snow below -15 °C	JB1 0.4 – 0.5										
Compacted snow above -15 °C	JB1 0.2 – 0.25										
response	Noted										

comment	<p>1835 comment by: <i>Danish Transport, Construction and Housing Authority</i></p> <p>The Danish CAA have 2 questions:</p> <ol style="list-style-type: none"> 1. Is downgrading to be done solely when there is a convergence between <i>Aerodrome deceleration or directional control observation and pilot report of runway braking action?</i> 2. Shall downgrad happen when frost is observed (RWYCC 5) but the downgrade criteria for RWYCC 4 is what you see or experience. And if this is the case, why then downgrade from RWYCC 6 "dry" to RWYCC 5 "frost" when <i>Braking deceleration is normal for the wheel braking effort AND directional control is normal</i> while "pilot report of runway braking action" is good.
response	<p>Noted</p> <p>Point 1: The third column from the left contains the assessment criteria for the pilots and the rightmost column contains the corresponding report.</p> <p>Point 2: A dry runway has RWYCC 6. The existence of frost implies a runway where there is contamination; therefore, RWYCC 5 should be assigned. This is what has to be reported by the aerodrome operator.</p>



comment	<p>1904 comment by: IATA</p> <p>IATA / Fedex concern:</p> <p>last row - US RCAM braking action term NIL for RwyCC is 0.</p>
response	Noted
comment	<p>1905 comment by: IATA</p> <p>IATA / Fedex concern:</p> <p>On Rational (see yellow text below): The proposed AMC introduces the RCAM in accordance with Table II-1-5 of ICAO Doc 9981. Nevertheless, there are two differences between the matrix proposed by ICAO and the one prepared by EASA. The first one is the introduction of SPECIALLY PREPARED WINTER RUNWAY in RWYCC 4 and the second one is the replacement of WET with SLIPPERY WET in RWYCC 3, as already explained in ADR.OPS.A.065.</p> <p>RCAM differences from the EASA plans</p>
response	Noted
comment	<p>1922 comment by: IATA</p> <p>IATA / BA Comment:</p> <p>on “ pilot reports on Braking Action”</p> <div style="border: 1px solid black; padding: 10px;"> <p>It is definitely the case that pilot-reports of braking action are a feature of the operation which are common in the USA but less so elsewhere.</p> <p>Scepticism is ventilated about the usefulness of pilot reports by some pilots, i.e. with autobrake systems, one has no idea how hard the braking-system has been working to produce the required deceleration rate (unless the aeroplane doesn't slow down).</p> <p>Only with maximum manual braking – for which no line pilot is trained – will one have any kind of feel for the achievable retardation of the aeroplane.</p> <p>Moreover, I would be very dubious that any pilot could assess the difference between good / medium / medium poor etc to the granularity which the TALPA ARC RCAM requires.</p> <p>Therefore, in the longer term, an automated system will offer better quality of reporting than subjective PIREPs. Three qualifications to those thoughts:</p> <p>Whatever system is proposed must not distract the flight crew</p> </div>

PIREPs will, of course, have a place in warning other pilots of problems if the preceding aircraft has only just managed to stop, or gone sliding
 Mainly: under ICAO Annex 14, reporting of runway surface condition is squarely the responsibility of the airport authority. If those authorities are not taking that task seriously enough, the efforts of pilots ought to be to recall airports to their responsibilities rather than trying to patch up the system.

Post hoc, one can compare one's achieved landing distance with the calculated value. If they are about the same, the runway condition was as reported; if worse, then worse.

However, it is ridiculous to expect a pilot to be able to differentiate between anything more than adequate and not adequate! All the granularities in between cannot be assessed subjectively.

An anecdote reported by the pilot:

"Landing in Helsinki, Runway 22L which is 3500m long. The SNOWTAM gave 25% coverage of ice and dry snow, RCAM condition 5, braking action GOOD. On approach, ATC gave estimated friction reports (from 20 minutes previously) of MED-GOOD, MED, MED-GOOD. The temperature was -1 Celsius with no precipitation. For an A320, the pilots had calculated an In Flight Landing Distance of about 1650m, based on GOOD, but there was obviously lots of runway in hand.

On Tower frequency, there was an extended conversation between the controller and the aircraft immediately ahead of us - from Finnair - in Finnish. The controller told us that the pilot of that aircraft estimated the braking action in the middle third of the runway as POOR. We still had lots of runway in hand.

On landing, we stopped as per our original IFLD calculation, and turned off after 1650m. The braking action was definitely not POOR.

The statistics of one event, but requiring a pilot, subjectively, to estimate GOOD, MED-GOOD, MED, MED-POOR or POOR is clearly not going to work. There are probably two braking actions which can be estimated in reality: FINE or BAD!"
 A report from another pilot indicates: "overall experience, however, is that most (not all) of the time the braking action reports are reasonably close to what was experienced"

response Noted

Indeed, pilot reports are part of the new method; however, their reports are used by the aerodrome operators to trigger re-assessment of the runway surface conditions.

EASA agrees that it is the aerodrome operator's responsibility to assess and report the runway surface conditions to the flight crews.



comment	1959	comment by: <i>European Cockpit Association</i>
	AMC1 ADR.OPS.B.037(a) Assessment of runway surface condition and assignment of runway condition code (RMT.0704)	
	ECA's comment: Remove “specially prepared winter RWY” from the matrix.	
	Rationale: Specially prepared winter RWY does not necessarily achieve RWY 4.	
response	Noted	
	See the response to the similar comment.	

GM1 ADR.OPS.B.037(a) Assessment of runway surface condition and assignment of runway condition code	p. 149-151
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comment	504	comment by: <i>AIRBUS</i>
	In Paragraph (a), please reword “Other factors that might have influence on the assessment result” to “Other aspects to be considered in the assessment”.	
	In Paragraph (c), please change to “The following describes”	
response	Accepted	

comment	818	comment by: <i>CAA Norway</i>
	GM1 ADR.OPS.B.037(a) Assessment of runway surface condition and assignment of runway condition code	
	COMMENT: Supported	
response	Noted	
	EASA would like to thank you for your support regarding the proposed changes.	

comment	935	comment by: <i>Aleksandar Ilkovski</i>
	GM1 ADR.OBS.B.037 (a), RCAM:	
	The belief of the Swedish airports is that a limit of -15C does not correspond well enough with the conditions describing RWYCC 3 and 4. The outside temperature is just one part of the factors contributing to conditions on a compacted snow runway. Dew-point and surface temperature are also effecting the assessment. Dry conditions above -15C (e.g -6 to -10C) may have the same performance as more humid conditions at -15C.	
	Swedavia suggest a rewriting to better coincide with factors described above.	
	<i>The threshold temperature for the classification of compacted snow in RWYCC 4 may vary between -6 and -15C. A decision to report RWYCC 4 based on compacted snow should be supported not only by outside air temperature but also by dew-point,</i>	

response	<p><i>surface temperature and other local conditions. At higher temperatures (e.g. -6 to -10) dryer conditions (lower dew-point) are required. Conditions should constantly be monitored as they rapidly can change (e.g. sunrise).</i></p>
	<p>Noted</p>
comment	<p>1146 comment by: SAS</p> <p>Supported</p>
response	<p>Noted</p> <p>EASA would like to thank you for your support regarding the proposed changes.</p>
comment	<p>1222 comment by: ACI Europe</p> <p>ACI EUROPE is of the view that a limit of -15°C does not correspond well enough with the conditions describing RWYCC 3 and 4. The outside temperature is just one part of the factors contributing to conditions on a compacted snow runway. Dew-point and surface temperature are also effecting the assessment. Dry conditions above -15°C (e.g -6 to -10°C) may have the same performance as more humid conditions at -15C. The term OAT should be defined. ACI EUROPE suggest a rewriting to better coincide with factors described above:</p> <p><i>The threshold temperature for the classification of compacted snow in RWYCC 4 may vary between -6° and -15°C. A decision to report RWYCC 4 based on compacted snow should be supported not only by outside air temperature but also by dew-point, surface temperature and other local conditions. At higher temperatures (e.g. -6° to -10°C) dryer conditions (lower dew-point) are required. Conditions should constantly be monitored as they rapidly can change (e.g. sunrise).</i></p>
response	<p>Noted</p>
comment	<p>1454 comment by: Norwegian Air (Norwegian Air Norway, Norwegian Air International, Norwegian Air UK and Norwegian Air Shuttle)</p> <p>Supported.</p>
response	<p>Noted</p> <p>EASA would like to thank you for your support regarding the proposed changes.</p>
comment	<p>1541 comment by: Wideroe Flyveselskap AS</p> <p>Supported.</p>
response	<p>Noted</p> <p>EASA would like to thank you for your support regarding the proposed changes.</p>



comment	1667	comment by: <i>Atle Vivas</i>
	Supported	
response	Noted	
	EASA would like to thank you for your support regarding the proposed changes.	
comment	1836	comment by: <i>Danish Transport, Construction and Housing Authority</i>
	Comment to GM1 ADR.OPS.B.037(a)(c)(2): If it is expected that this is to be reported like indicated in RWYCC 3, and that the Competent Authority should enforce it, this GM should be AMC-material.	
response	Noted	
	The issue of rubber deposits has been included in SLIPPERY WET, which corresponds to RWYCC 3.	
comment	1906	comment by: <i>IATA</i>
	IATA / Fedex concern:	
	On Par c (1) see yellow text below):	
	This definition does NOT align with the FAA TALPA ARC definition of what constitutes a contaminated runway. ONLY when greater than 25% of the entire usable runway is contaminated would it be considered contaminated. NOT if any third of the runway is greater than 25%. This means that 1/12 or 8% of the runway could constitute a contaminated runway. Aircraft Manufacturers stated during the TALPA ARC that anything less than 25% of the entire runway doesn't affect aircraft performance thus their data wouldn't reflect or necessitate the use of a degraded braking action or performance penalty.	
	Having the first third or last third of a runway with 25% coverage wouldn't be a rare event verses 25% of the entire runway.	
	This difference will force US Operators to use RwyCC's where in the US they wouldn't be given based on this 25% of a third condition. For instance, If one third of the runway had 25% standing water, then the RwyCC would be required to be used and would be 6/6/2. This could easily prevent an Aircraft Operator from being able to land based on this condition.	
response	Noted	
	The EASA proposal is in line with the ICAO proposal.	

comment	900	comment by: CAA Norway
	<p>GM2 ADR.OPS.B.037(a) Assessment of runway surface condition and assignment of runway condition code</p> <p>COMMENT: Suggest changing to 'ICE is considered <u>to be</u> untreated ice that covers the runway macrotexture.</p> <p>RATIONALE: Clarification/QUESTION: Does this impact on Definitions?</p>	
response	<p>Noted</p> <p>This does not have any impact on the definitions.</p>	
comment	1147	comment by: SAS
	<p>Supported</p>	
response	<p>Noted</p> <p>EASA would like to thank you for your support regarding the proposed changes.</p>	
comment	1455	comment by: Norwegian Air (Norwegian Air Norway, Norwegian Air International, Norwegian Air UK and Norwegian Air Shuttle)
	<p>Supported.</p>	
response	<p>Noted</p> <p>EASA would like to thank you for your support regarding the proposed changes.</p>	
comment	1670	comment by: Atle Vivas
	<p>GM2 ADR.OPS.B.037(a) Assessment of runway surface condition and assignment of runway condition code</p> <p>COMMENT: Suggest changing to 'ICE is considered <u>to be</u> untreated ice that covers the runway macrotexture.</p> <p>RATIONALE: Clarification/QUESTION: Does this impact on Definitions?</p>	
response	<p>Noted</p> <p>This does not have any impact on the definitions.</p>	

AMC1 ADR.OPS.B.037(b) Assessment of runway surface condition and assignment of runway condition code

p. 151-152

comment	143	comment by: Aerodrome safety regulation departement
	<p>The rationale might be completed to precise that this requirement also transposes provision 1.1.3.19 of the PANS-ADR.</p>	
response	<p>Accepted</p>	



comment

454

comment by: TopP Oy

Attachment [#10](#)Current page 152 item e):

“... The aerodrome operator should appropriately downgrade the RWYCC taking into consideration all available means of assessing runway slipperiness, including pilot reports ...”

Proposed change:

“... The aerodrome operator should appropriately downgrade the RWYCC taking into consideration all available means, including properly operated- and calibrated measuring devices if available and pilot reports when assessing runway slipperiness ...”

Rationale:

This is a safety issue.

In Finland we have decades of experience in using BV11 (SKH) friction measuring device as one mean of runway condition assessment. These measurements can be combined with good safety record. This has been achieved by proper use of the friction measuring device. Proper use is defined as:

- device meeting the established standards
- proper initial user training
- annual user refreshment training
- weekly calibration program of each device
- annual overhaul program of each device
- respect of the device operational envelope eq. hard contaminants (wet, frost, compacted snow and ice) and maximum depth per each thick contaminant (water, slush, wet snow and dry snow)
- method is agreed by the state

We have 10 years runway report data saved in a database with about 45000 annual friction measurements (runway thirds). Based on this data it is evident, that contaminants of depth 3 mm or less are often considerably more slippery than RWYCC=5 eq. to WET. In many cases the actual condition has been as low as RWYCC=2 or 3 (See attached diagram 5).

It has also been studied, that even a drop of one RWYCC class may lead to a situation, where inflight landing margins are insufficient to cover safe landing (LDA limited landing). In take-off performance calculation margins are zero (ASDA, TODA or TORA limited runway limited take-off).

response

Noted

The assignment of a RWYCC is based on the type and depth of the contaminant and is linked with aeroplane performance data. Friction measurements cannot be correlated with certain RWYCCs and aeroplane performance data. Nevertheless, when upgrading and downgrading a RWYCC, all the available means could be used.



This does not exclude the use of continuous friction measurement devices provided that measurements are used in a comparative way and are not communicated to the flight crews.

comment

552

comment by: *Finavia Oyj*Attachment [#11](#)Current page 152 item e):

"... The aerodrome operator should appropriately downgrade the RWYCC taking into consideration all available means of assessing runway slipperiness, including pilot reports ..."

Proposed change:

"... The aerodrome operator should appropriately downgrade the RWYCC taking into consideration all available means, including properly operated- and calibrated measuring devices if available and pilot reports when assessing runway slipperiness ..."

Rationale:

This is a safety issue.

In Finland we have decades of experience in using BV11 (SKH) friction measuring device as one mean of runway condition assessment. These measurements can be combined with good safety record. This has been achieved by proper use of the friction measuring device. Proper use is defined as:

- device meeting the established standards
- proper initial user training
- annual user refreshment training
- weekly calibration program of each device
- annual overhaul program of each device
- respect of the device operational envelope eq. hard contaminants (wet, frost, compacted snow and ice) and maximum depth per each thick contaminant (water, slush, wet snow and dry snow)
- method is agreed by the state

We have 10 years runway report data saved in a database with about 45000 annual friction measurements (runway thirds). Based on this data it is evident, that contaminants of depth 3 mm or less are often considerably more slippery than RWYCC=5 eq. to WET. In many cases the actual condition has been as low as RWYCC=2 or 3 (See attached diagram 5).

It has also been studied, that even a drop of one RWYCC class may lead to a situation, where inflight landing margins are insufficient to cover safe landing (LDA limited landing). In take-off performance calculation margins are zero (ASDA, TODA or TORA limited runway limited take-off).

response

Noted



The assignment of a RWYCC is based on the type and depth of the contaminant and is linked with aeroplane performance data. Friction measurements cannot be correlated with certain RWYCCs and aeroplane performance data. Nevertheless, when upgrading and downgrading a RWYCC, all the available means could be used. This does not exclude the use of continuous friction measurement devices provided that measurements are used in a comparative way and are not communicated to the flight crews.

comment	819	comment by: CAA Norway
	AMC1 ADR.OPS.B.037(b) Assessment of runway surface condition and assignment of runway condition code	
	COMMENT: Supported	
response	Noted	
	EASA would like to thank you for your support regarding the proposed changes.	

comment	1148	comment by: SAS
	Supported	
response	Noted	
	EASA would like to thank you for your support regarding the proposed changes.	

comment	1223	comment by: ACI Europe
	Attachments #12 #13 #14 #15	
	<p>Page152 presents that RWYCC=0 or 1 may be UPGRADED to maximum RWYCC=3. UPGRADE may be based on friction measurements (pages 154 and 155). However, page 156 table does NOT allow UPGRADE of RWYCC=0 based friction measuring device. Please clarify which rule is the correct one to apply: the plain text on pages 152-155 or the table on page 156?</p> <p>The over 40 years experience of ACI EUROPE's Finnish members using BV11 device have shown a good safety record. This has been achieved by correct usage of the friction measuring device. Correct use can be defined as:</p> <ul style="list-style-type: none"> - appropriate initial user training - annual user refreshment training - weekly calibration of each device - annual overhaul of each device - respect of the device environmental envelope eq. maximum depth per different contaminant types (water, slush, wet snow and dry snow). <p>It would be unacceptable not to allow usage of friction measuring device to UPGRADE RWYCC=0 class. See suggested revised table (see attachments provided by FINAVIA).</p>	



response	Noted
	The assignment of a RWYCC is based on the type and depth of the contaminant and is linked with aeroplane performance data. Friction measurements cannot be correlated with certain RWYCCs and aeroplane performance data. Nevertheless, when upgrading and downgrading a RWYCC, all the available means could be used. This does not exclude the use of continuous friction measurement devices provided that measurements are used in a comparative way and are not communicated to the flight crews.
comment	1324 comment by: <i>Swedish Transport Agency</i>
	Supported.
response	Noted
	EASA would like to thank you for your support regarding the proposed changes.
comment	1439 comment by: <i>CAA Finland</i>
	Properly operated and calibrated friction measuring devices if available should be included as an option to downgrade or upgrade RWYCC.
response	Noted
	The assignment of a RWYCC is based on the type and depth of the contaminant and is linked with aeroplane performance data. Friction measurements cannot be correlated with certain RWYCCs and aeroplane performance data. Nevertheless, when upgrading and downgrading a RWYCC, all the available means could be used. This does not exclude the use of continuous friction measurement devices provided that measurements are used in a comparative way and are not communicated to the flight crews.
comment	1456 comment by: <i>Norwegian Air (Norwegian Air Norway, Norwegian Air International, Norwegian Air UK and Norwegian Air Shuttle)</i>
	Supported.
response	Noted
	EASA would like to thank you for your support regarding the proposed changes.
comment	1542 comment by: <i>Wideroe Flyveselskap AS</i>
	Supported.
response	Noted

EASA would like to thank you for your support regarding the proposed changes.

comment 1684 comment by: *Atle Vivas*

Supported

response Noted

EASA would like to thank you for your support regarding the proposed changes.

comment 1839 comment by: *Danish Transport, Construction and Housing Authority*

AMC1.ADR.OPS.B.037(b)(a)(4): It says that *"the aerodrome operator should: not upgrade an assigned RWYCC 5, 4, 3 og 2"*. On the other hand GM2.ADR.OPS.B.037(b)(a) says that *"downgrading and upgrading is an intergral part of the assessment process"* AND *"when all other observations, experience and local knowledge indicate that the primary assignment of the RWYCC does not reflect the prevailing conditions accurately, a downgrade og upgrade should be made"*. It seems that GM2.ADR.OPS.B.037(b)(a) does not comply with AMC1.ADR.OPS.B.037(b)(a)(4).

In addition AMC1.ADR.OPS.B.037(c) says that *"The aerodrome operator may use a special air-report of runway braking action for upgrading purposes only if it is used in combination with other information qualifying for upgrading"*. It seems that AMC1(c) does not comply with AMC1(b)(a)(4) either.

response Noted

The assignment of a RWYCC is based on the type and depth of the contaminant and is linked with aeroplane performance data. Friction measurements cannot be correlated with certain RWYCCs and aeroplane performance data. Nevertheless, when upgrading and downgrading a RWYCC, all the available means could be used. This does not exclude the use of continuous friction measurement devices provided that measurements are used in a comparative way and are not communicated to the flight crews.

comment 1907 comment by: *IATA*

IATA / Fedex concern:

On para a)

Having the first third or last third of a runway with 25% coverage wouldn't be a rare event verses 25% of the entire runway.

This difference will force US Operators to use RwyCC's where in the US they wouldn't be given based on this 25% of a third condition. For instance, If one third of the runway had 25% standing water, then the RwyCC would be required to be used and would be 6/6/2. This could easily prevent an Aircraft Operator from being able to land based on this condition.



response	Noted EASA is following the ICAO proposal.
comment	1908 comment by: IATA IATA / Fedex Concern: on par b) TALPA requires that when the RwyCC is 1 or 0 that the Airport Operator must "Do something" to address the condition (ie sand, broom, etc.) and then perform an assessment based on these actions and utilize all available means (runway friction and driver experience before an upgrade can be done to a 2 or 3
response	Noted The AMC and the corresponding implementing rule refer to the assessment of runway surface condition assessment and reporting. The removal of contaminants is addressed in ADR.OPS.B.035.

GM1 ADR.OPS.B.037(b) Assessment of runway surface condition and assignment of runway condition code

p. 153-154

comment	304 comment by: Finnair points (a)(2)-(a)(3) COMMENTS: It must be clearly stated, that the assigned RWYCC code might not be solely due to the contaminant type and depth, but also it can be due to a downgrade based on properly used friction measuring devices or other aspects mentioned on page 154: "GM2 ADR.OPS.B.037(b) Assessment of runway surface condition and assignment of runway condition code (RMT.0704) DOWNGRADING AND UPGRADING" . So for example automatically assigning RWYCC6 for a runway with 25 percent of dry snow (depth 3mm) can be dangerous, if the friction measurements suggest that the runway is more slippery than RWYCC6 would imply. A downgrade in the RWYCC would then have to be made and clearly allowed by the ruling. Similarly, an upgrade from RWYCC 0 and 1 to max RWYCC 3 must be possible and allowed by the ruling. PROPOSAL: Finnair proposes to change the wordings to: (a) When the runway third contains a single contaminant, the RWYCC for that third is based directly on that contaminant in the RCAM taking into account the possible effect of RWYCC downgrade or upgrade in the RCAM as follows:
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	<p>(1) If the contaminant coverage for that third is less than 10 per cent, a RWYCC 6 is to be generated for that third, and no contaminant is to be reported. If all thirds have less than 10 per cent contaminant coverage, no report is generated; or</p> <p>(2) If the contaminant coverage for that third is greater than or equal to 10 per cent and less than or equal to 25 per cent, a RWYCC 6 is to be generated for that third, provided that a RWYCC downgrade is not needed, and the contaminant reported at 25 per cent coverage; or</p> <p>(3) If the contaminant coverage for that third is greater than 25 per cent, the RWYCC for that third is based on the contaminant present and the possible effect of RWYCC downgrade or upgrade.</p>
response	<p>Noted</p> <p>The assignment of a RWYCC is based on the type and depth of the contaminant and is linked with aeroplane performance data. Friction measurements cannot be correlated with certain RWYCCs and aeroplane performance data. Nevertheless, when upgrading and downgrading a RWYCC, all the available means could be used. This does not exclude the use of continuous friction measurement devices provided that measurements are used in a comparative way and are not communicated to the flight crews.</p>
comment	<p>508 comment by: AIRBUS</p> <p>In Paragraph (c), “ranking” would be a more appropriate term than “ranging”.</p>
response	<p>Accepted</p>
comment	<p>820 comment by: CAA Norway</p> <p>GM1 ADR.OPS.B.037(b) Assessment of runway surface condition and assignment of runway condition code COMMENT: Supported</p>
response	<p>Noted</p> <p>EASA would like to thank you for your support regarding the proposed changes.</p>
comment	<p>897 comment by: Nordic Regional Airlines</p> <p>points (a)(2)-(a)(3)</p> <p>COMMENTS: It must be clearly stated, that the assigned RWYCC code might not be solely due to the contaminant type and depth, but also it can be due to a downgrade based on properly used friction measuring devices or other approved means mentioned on page 154: "GM2 ADR.OPS.B.037(b) Assessment of runway surface condition and assignment of runway condition code (RMT.0704) DOWNGRADING AND UPGRADING" .</p>



So for example automatically assigning RWYCC 6 for a runway with 25 percent of dry snow (depth 3mm) can be dangerous, if friction and/or other approved measurements suggest that the runway is more slippery than RWYCC 6 would imply. A downgrade in the RWYCC would then have to be made and clearly allowed by the ruling. Similarly, an upgrade from RWYCC 0 and 1 to max RWYCC 3 must be possible and allowed by the ruling.

PROPOSAL:

Norra proposes to change the wordings to:

(a) When the runway third contains a single contaminant, the RWYCC for that third is based directly on that contaminant in the RCAM taking into account the possible effect of RWYCC downgrade or upgrade in the RCAM as follows:

(1) If the contaminant coverage for that third is less than 10 per cent, a RWYCC 6 is to be generated for that third, and no contaminant is to be reported. If all thirds have less than 10 per cent contaminant coverage, no report is generated; or

(2) If the contaminant coverage for that third is greater than or equal to 10 per cent and less than or equal to 25 per cent, a RWYCC 6 is to be generated for that third, provided that a RWYCC downgrade is not needed, and the contaminant reported at 25 per cent coverage; or

(3) If the contaminant coverage for that third is greater than 25 per cent, the RWYCC for that third is based on the contaminant present and the possible effect of RWYCC downgrade or upgrade.

response

Noted

The assignment of a RWYCC is based on the type and depth of the contaminant and is linked with aeroplane performance data. Friction measurements cannot be correlated with certain RWYCCs and aeroplane performance data. Nevertheless, when upgrading and downgrading a RWYCC, all the available means could be used. This does not exclude the use of continuous friction measurement devices provided that measurements are used in a comparative way and are not communicated to the flight crews.

comment

1149

comment by: SAS

Supported

response

Noted

EASA would like to thank you for your support regarding the proposed changes.

comment

1443

comment by: CAA Finland

Assigned RWYCC code should not be based only on the contaminant type and depth, but also it could be downgraded or upgraded based on properly used friction measuring devices.

response

Noted



The assignment of a RWYCC is based on the type and depth of the contaminant and is linked with aeroplane performance data. Friction measurements cannot be correlated with certain RWYCCs and aeroplane performance data. Nevertheless, when upgrading and downgrading a RWYCC, all the available means could be used. This does not exclude the use of continuous friction measurement devices provided that measurements are used in a comparative way and are not communicated to the flight crews.

comment	1457	comment by: Norwegian Air (Norwegian Air Norway, Norwegian Air International, Norwegian Air UK and Norwegian Air Shuttle)
	Supported.	
response	Noted	
	EASA would like to thank you for your support regarding the proposed changes.	

comment	1686	comment by: Atle Vivas
	Supported	
response	Noted	
	EASA would like to thank you for your support regarding the proposed changes.	

comment	1909	comment by: IATA
	IATA / Fedex Concern:	
	On a_2	
	Having the first third or last third of a runway with 25% coverage wouldn't be a rare event verses 25% of the entire runway.	
	This difference will force US Operators to use RwyCC's where in the US they wouldn't be given based on this 25% of a third condition. For instance, If one third of the runway had 25% standing water, then the RwyCC would be required to be used and would be 6/6/2. This could easily prevent an Aircraft Operator from being able to land based on this condition.	
response	Noted	

comment	1911	comment by: IATA
	IATA / Fedex Concern:	
	On par C	



response	The TALPA RCAM never was designed or meant to be used for Takeoff considerations
	Noted
	EASA is following the ICAO proposal.

GM2 ADR.OPS.B.037(b) Assessment of runway surface condition and assignment of runway condition code p. 154-156

comment	<p>145 comment by: <i>Aerodrome safety regulation departement</i></p> <p>1/In France, there isn't any "established standard" dealing with the operation of CFMDs on compacted snow or on ice-covered surfaces. In consequence, point d) of this provision and table 1 will be inapplicable in France. Do other countries have good practices to share in order to meet this requirement ?</p> <p>Moreover, considering that requirements are not harmonized between member states regarding friction measurements on compacted snow or ice, the need of regulating the technical specifications of CFMDs used for these purposes is questionable.</p> <p>2/ In table 1, the RWYCC associated to FROST is not consistent with RCAM matrix since table 1 associates a RWYCC of 6 and RCAM matrix a RWYCC of 5.</p>
response	<p>Accepted</p> <p>Table 1 has been deleted.</p>

comment	<p>305 comment by: <i>Finnair</i></p> <p>Page 155/156, table 1</p> <p>Comments:</p> <p>The upgrade/downgrade possibilities allowed by table 1 are clearly wrong. They are also conflicting with the text part earlier on page 154 for example. The text part allows a downgrade and an upgrade (from RWYCCs 0 and 1 to max RWYCC3) if needed. However, table 1 starting from page 155 does <u>not</u> allow a downgrade based on friction measurements for RWYCCs 6, 3 and 2, but an "N/A" is displayed. A downgrade must ALWAYS be possible, this is a major safety issue. Also the table seemingly <u>does not</u> allow an upgrade from RWYCCs 0 and 1, even though the text part earlier states that an upgrade to max RWYCC 3 is allowed. So the table must be revised and corrected.</p> <p>PROPOSAL:</p> <p>Finnair requests table 1 (starting from page 155) <u>to be corrected to be in line with the text part</u> of "GM2 ADR.OPS.B.037(b) Assessment of runway surface condition and assignment of runway condition code (RMT.0704), DOWNGRADING AND UPGRADING":</p> <p>-Table 1 column called "Downgrading using friction measuring device" must state "Standard set or agreed by the State" for all RWYCCs from 6 to 1.</p>
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response	<p>-Table 1 column called "Upgrading using friction measuring device" must state "Standard set or agreed by the State, maximum upgrade to RWYCC 3" for RWYCCs 0 to 1</p>
	<p>Noted</p> <p>Table 1 has been deleted. Friction measuring devices cannot be used solely for upgrading or downgrading purposes but only in a comparative way and as a part of the overall assessment. Furthermore, there are no generally accepted standards for friction measuring devices.</p>
comment	<p>455 comment by: TopP Oy</p> <p>Attachments #16 #17 #18 #19</p> <p><u>Current page 155 GM2 ADR.OPS.B.037(b) item d):</u></p> <p><i>"... (d) When friction measurements are used as part of the overall runway surface assessment on compacted snow- or ice-covered surfaces, the friction measuring device should meet the established standard. Table 1 gives information on which reportable runway surface descriptions the friction measuring device could be used for downgrading and upgrading ..."</i></p> <p><u>Proposed change:</u></p> <p><i>"... (d) When friction measurements are used as part of the overall runway surface assessment, following aspects should be taken into account:</i></p> <ul style="list-style-type: none"> - <u>friction measuring device meets the established standards</u> - <u>proper initial user training</u> - <u>annual user refreshment training</u> - <u>device weekly calibration program</u> - <u>device annual overhaul program</u> - <u>definition and respect of the device operational envelope eq. hard contaminants (wet, frost, compacted snow and ice) and maximum depth per thick contaminant (water, slush, wet snow and dry snow)</u> - <u>sufficient evidence of the measured friction values to RWYCC ratio is provided</u> - <u>method is agreed by the state</u> <p><i>..."</i></p> <p><u>Note: This guidance could be raised to AMC level regulation?</u></p> <p><u>Rationale:</u></p> <p>This is both safety- and economic issue. There is evidence, that in many cases solely RCAM based RWYCC assessment would lead to dangerously optimistic value. There is also evidence, that often RWYCC values 0 and 1 are too pessimistic and thus causing unnecessary irregularity to operations.</p> <p>In Finland we have decades of experience in using BV11 (SKH) friction measuring device as one mean of runway condition assessment. These measurements can be</p>



combined to good safety record. This has been achieved by proper use of the friction measuring device. “Proper use” in this context is defined as proposed change in item d).

Safety aspects:

We have 10 years runway report data saved in a database with about 45000 annual friction measurements (runway thirds). Based on this data it is evident, that contaminants of depth 3 mm or less are often considerably more slippery than RWYCC=5 eq. to WET. In many cases the actual condition has been as low as RWYCC=2 or 3 (see attached diagram 4).

It has also been studied, that even a drop of one RWYCC class may lead to a situation, where inflight landing margins are insufficient to cover safe landing (LDA limited landing). In take-off performance calculation margins are zero (ASDA, TODA or TORA limited runway limited take-off).

Economic aspects:

Saved data clearly indicates, that solely RCAM based reporting will polarize RWYCC values to high- and low ends RWYCC (see attached diagrams 5 and 6). This would not reflect actual real runway conditions. Low end polarization would lead to unnecessary cancelation of flights.

We have comprehensive statistics of measured friction values in respect to estimated surface friction values (ESF). This data clearly indicates a consistent use of friction tester in respect to its allowed environmental envelope (see attached diagram 7).

response

Noted

Table 1 has been deleted. Friction measuring devices cannot be used solely for upgrading or downgrading purposes but only in a comparative way and as a part of the overall assessment. Furthermore, there are no generally accepted standards for friction measuring devices.

comment

456

comment by: TopP Oy

Current page 155 GM2 ADR.OPS.B.037(b) items d), e) and f):

“...(d) Table 1 - Downgrading or upgrading using friction measuring device...(e)...(f)... friction to that of a wet runway (RWYCC 5) or higher ...”

Proposed change:

Delete: item d) Table 1

Delete: item e)

Delete: item f)

Rationale:



response	<p>This is a safety issue. Friction measurements must not be restricted as per current items d), e) and f). Higher safety level will be achieved, if friction measuring operations are guided as per proposed change to item d) on page 155.</p> <p>Noted</p> <p>Table 1 has been deleted. Friction measuring devices cannot be used solely for upgrading or downgrading purposes but only in a comparative way and as a part of the overall assessment. Furthermore, there are no generally accepted standards for friction measuring devices.</p>
comment	<p>506 comment by: AIRBUS</p> <p>Airbus suggests the following modifications:</p> <p>In Paragraph (c), last sentence, please reword to “Upgrading is conditional to use of a friction measuring device that meets the established standards and should be supported by all other aspects, such as listed in point (b) above.”</p> <p>The RCAM indicates that upgrading is not permitted on RWYCC 0. That is not in line with AMC1 ADR.OPS.B.37(b) (a) (5), which states that only runways classified as primary RWYCC 0 and 1 may be upgraded. The table should be corrected accordingly.</p>
response	<p>Noted</p>
comment	<p>530 comment by: ISAVIA ohf.</p> <p>(d) When friction measurements are used as part of the overall runway surface assessment on compacted snow- or ice-covered surfaces, the friction measuring device should meet the established standard. Table 1 gives information on which reportable runway surface descriptions the friction measuring device could be used for downgrading and upgrading.</p> <p>The NPA describes how the contamination characteristics according to RCAM table are the core element of determining RWYCC. A final assessment is to be based on all available means, including the use of a friction measuring device. However, in our opinion, excessive limitations are applied to using the friction measuring device as a part of the overall assessment (in particular, item (d) Table 1). Therefore, we suggest the friction measuring device should not be excluded as a source of evidence for downgrading any observed contamination class associated with RWYCC 1 to 5.</p>
response	<p>Noted</p> <p>Table 1 has been deleted. Friction measuring devices cannot be used solely for upgrading or downgrading purposes but only in a comparative way and as a part of the overall assessment. Furthermore, there are no generally accepted standards for friction measuring devices.</p>
comment	<p>531 comment by: ISAVIA ohf.</p>



	<p>(3) Measurements</p> <ul style="list-style-type: none"> (i) friction measurements (ii) vehicle behaviour (iii) shoe scraping <p>Referring to the suggested use of (among other available means);</p> <p>a) inspection vehicle behaviour: A guidance should be given on the interpretation of vehicle performance (similar to aeroplane performance regarding pilot report), in the RCAM table. Also, a reference to inspection vehicle characteristics needs to be given; e.g. tires, breaking system, automated stability control etc. A standardised manoeuvre and driving speed of the inspection vehicle would be beneficial.</p> <p>b) friction measuring device: To facilitate the use of measurements for up- and downgrading, a correlation between the measured value and the RWYCC needs to be given in the RCAM table.</p>
response	<p>Noted</p> <p>There are no criteria which can relate the inspection vehicle behaviour with the aeroplane braking performance. Furthermore, there is no correlation between the measured values and the RWYCC; however, friction values can be used in a comparative way as a part of the overall assessment process.</p>
comment	<p>553 comment by: <i>Finavia Oyj</i></p> <p>Attachments #20 #21 #22 #23</p> <p><u>Current page 155 GM2 ADR.OPS.B.037(b) item d):</u></p> <p><i>“... (d) When friction measurements are used as part of the overall runway surface assessment on compacted snow- or ice-covered surfaces, the friction measuring device should meet the established standard. Table 1 gives information on which reportable runway surface descriptions the friction measuring device could be used for downgrading and upgrading ...”</i></p> <p><u>Proposed change:</u></p> <p><i>“... (d) When friction measurements are used as part of the overall runway surface assessment, following aspects should be taken into account:</i></p> <ul style="list-style-type: none"> - <u>friction measuring device meets the established standards</u> - <u>proper initial user training</u> - <u>annual user refreshment training</u> - <u>device weekly calibration program</u> - <u>device annual overhaul program</u> - <u>definition and respect of the device operational envelope eq. hard contaminants (wet, frost, compacted snow and ice) and maximum depth per thick contaminant (water, slush, wet snow and dry snow)</u> - <u>sufficient evidence of the measured friction values to RWYCC ratio is provided</u> - <u>method is agreed by the state</u> <p><i>...”</i></p> <p><u>Note: This guidance could be raised to AMC level regulation?</u></p> <p><u>Rationale:</u></p>

This is both safety- and economic issue. There is evidence, that in many cases solely RCAM based RWYCC assessment would lead to dangerously optimistic value. There is also evidence, that often RWYCC values 0 and 1 are too pessimistic and thus causing unnecessary irregularity to operations.

In Finland we have decades of experience in using BV11 (SKH) friction measuring device as one mean of runway condition assessment. These measurements can be combined to good safety record. This has been achieved by proper use of the friction measuring device. "Proper use" in this context is defined as proposed change in item d).

Safety aspects:

We have 10 years runway report data saved in a database with about 45000 annual friction measurements (runway thirds). Based on this data it is evident, that contaminants of depth 3 mm or less are often considerably more slippery than RWYCC=5 eq. to WET. In many cases the actual condition has been as low as RWYCC=2 or 3 (see attached diagram 4).

It has also been studied, that even a drop of one RWYCC class may lead to a situation, where inflight landing margins are insufficient to cover safe landing (LDA limited landing). In take-off performance calculation margins are zero (ASDA, TODA or TORA limited runway limited take-off).

Economic aspects:

Saved data clearly indicates, that solely RCAM based reporting will polarize RWYCC values to high- and low ends RWYCC (see attached diagrams 5 and 6). This would not reflect actual real runway conditions. Low end polarization would lead to unnecessary cancelation of flights.

We have comprehensive statistics of measured friction values in respect to estimated surface friction values (ESF). This data clearly indicates a consistent use of friction tester in respect to its allowed environmental envelope (see attached diagram 7).

response

Noted

Table 1 has been deleted. Friction measuring devices cannot be used solely for upgrading or downgrading purposes but only in a comparative way and as a part of the overall assessment. Furthermore, there are no generally accepted standards for friction measuring devices.

comment

554

comment by: *Finavia Oyj*

Current page 155 GM2 ADR.OPS.B.037(b) items d), e) and f):

"...(d) Table 1 - Downgrading or upgrading using friction measuring device...(e)...(f)... friction to that of a wet runway (RWYCC 5) or higher ..."

Proposed important change:

Delete: item d) Table 1



response	<p><u>Delete: item e)</u> <u>Delete: item f)</u></p> <p><u>Rationale:</u> This is a safety issue. Friction measurements must not be restricted as per current items d), e) and f). Higher safety level will be achieved, if friction measuring operations are guided as per proposed change to item d) on page 155.</p> <p>Noted</p> <p>Table 1 has been deleted. Friction measuring devices cannot be used solely for upgrading or downgrading purposes but only in a comparative way and as a part of the overall assessment. Furthermore, there are no generally accepted standards for friction measuring devices.</p>
comment	<p>687 comment by: <i>Amsterdam Airport Schiphol</i></p> <p>Ref. GM2 ADR.OPS.B.037(b):</p> <p>According to the rationale, this GM is based on provisions in Chapter 4 of the ICAO Circular 329. The specific provisions in this Circular however relate to rainfall and pavement. It is unclear how the methods for down- and upgrading are derived from ICAO Circular 329. Furthermore the text of the GM and the corresponding table are difficult to interpret. More specific guidance is needed to effectively understand the process of upgrading and downgrading.</p>
response	<p>Noted</p> <p>Please refer to the amended Circular 329, which is now Circular 355.</p>
comment	<p>822 comment by: <i>CAA Norway</i></p> <p>GM2 ADR.OPS.B.037(b) Assessment of runway surface condition and assignment of runway condition code</p> <p>COMMENT: In (a) after first colon, insert comma after type as shown: ‘their type, depth and coverage,’</p> <p>RATIONALE: Editorial</p> <p>COMMENT: In (c), last sentence, modify to read: If friction measuring device is used in the process Upgrade/Downgrade process, Upgrading is conditioned on the friction measuring device meeting the established standards and supported by all other aspects, such as listed in point (b) above.</p> <p>RATIONALE: To clarify that friction measuring devices <i>can be</i>, but not <i>must be</i> used.</p> <p>COMMENT: In (d), first sentence. Suggest ‘If friction measurements are used as part....’</p> <p>RATIONALE: To clarify that friction measuring devices can be, but not must be used</p>



	<p>COMMENT: In (f), Insert 'if used' to make the last sentence read 'the friction measuring device, if used, should demonstrate an equivalent friction to that of a wet runway (RWYCC 5) or higher.'</p> <p>RATIONALE: To clarify that friction measuring devices can be, but not must be used</p>
response	Noted

comment	<p>899 comment by: <i>Nordic Regional Airlines</i></p>
	<p>Page 155/156, table 1</p> <p>COMMENTS: The upgrade/downgrade possibilities allowed by table 1 are clearly wrong. They are also conflicting with the text part earlier on page 154 for example. The text part allows a downgrade and an upgrade (from RWYCCs 0 and 1 to max RWYCC 3) if needed. However, table 1 starting from page 155 does not allow a downgrade based on friction measurements for RWYCCs 6, 5, 3 and 2, but an "N/A" is displayed. A downgrade must ALWAYS be possible, this is a major safety issue. Also, the table does not allow an upgrade from RWYCC 0, even though the text part earlier states that an upgrade to max RWYCC 3 is allowed. So the table must be revised and corrected.</p> <p>PROPOSAL: Norra requests table 1 (starting from page 155) to be corrected to be in line with the text part of "GM2 ADR.OPS.B.037(b) Assessment of runway surface condition and assignment of runway condition code (RMT.0704), DOWNGRADING AND UPGRADING":</p> <ul style="list-style-type: none"> -Table 1 column called "Downgrading using friction measuring device" must state "Standard set or agreed by the State" for all RWYCCs from 6 to 1. -Table 1 column called "Upgrading using friction measuring device" must state "Standard set or agreed by the State, maximum upgrade to RWYCC 3" for RWYCCs 0 to 1 <p>Page 156,</p> <p>point f): "When used for upgrading purposes, a preponderance of evidence should exist. In order to upgrade a RWYCC 0 or 1 to no higher than RWYCC 3, the friction measuring device should demonstrate an equivalent friction to that of a wet runway (RWYCC 5) or higher."</p> <p>COMMENTS: This is an unacceptable requirement. When upgrading from RWYCCs 0 or 1 to max RWYCC 3, the requirement cannot be that the measured friction would be equivalent to a RWYCC 5 condition. This limitation would destroy the basic idea of an upgrade possibility. Furthermore, this requirement is not in line with ICAO Annex 14 or Doc 9981.</p>



	PROPOSAL: Norra proposes to delete point f).
response	Noted The GM has been revised. The upgrade from RWYCC 0 or 1 to more than 3 is not allowed, except in the case of specially prepared winter runways.
comment	937 comment by: Aleksandar Ilkovski GM2 ADR.OPS.B.037(b): The text in the initial section (a) and (b) does not harmonise with table 1. According to the text friction measurements are possible to use as part of the downgrading process. However table 1 states that downgrade using friction measurements is not possible at all RWYCC. The paragraph and table 1 should be clarified by emphasising that friction measurements may be used as a part of the overall downgrade process for all RWYCC.
response	Noted Table 1 has been deleted.
comment	938 comment by: Aleksandar Ilkovski GM2 ADR.OPS.B.037(b): The category placing of “vehicle behaviour” and “shoe scraping” is misleading. “Measurements” indicates that a variable is compared to a specific standard, e.g. a ruler, a scale or other standard. While these two methods are highly subjective they are nevertheless valuable to the person conducting the runway inspection and the process of establishing an RCR. A more appropriate classification would be to place “vehicle behaviour” and “shoe scraping” in the “observations” (2) category.
response	Noted
comment	939 comment by: Aleksandar Ilkovski GM2 ADR.OPS.B.037(b): The text does not harmonise with other paragraphs. Nowhere is it stated what “...equivalent friction to that of a wet runway (RWYCC 5)...” is. A more suitable writing would be: “...the friction measuring device should demonstrate results that well corresponds to, and assures the perceived directional control and horizontal stability of a RWYCC 3. Alternatively a new table is created with expected friction measurements of all RWYCC.
response	Noted This provides an additional safety margin.



comment	<p>971 comment by: <i>ADV - German Airports Association</i></p> <p>According to the rationale, this GM is based on provisions in Chapter 4 of the ICAO Circular 329. The specific provisions in this Circular however relate to rainfall and pavement. It is unclear how the methods for down- and upgrading are derived from ICAO Circular 329. Furthermore the text of the GM and the corresponding table are difficult to interpret. More specific guidance is needed to effectively understand the process of upgrading and downgrading.</p>
response	<p>Noted</p> <p>Please refer to the amended Circular 329, which is now Circular 355.</p>

comment	<p>1038 comment by: <i>Fraport AG</i></p> <p>According to the rationale, this GM is based on provisions in Chapter 4 of the ICAO Circular 329. The specific provisions in this Circular however relate to rainfall and pavement. It is unclear how the methods for down- and upgrading are derived from ICAO Circular 329. Furthermore the text of the GM and the corresponding table are difficult to interpret. More specific guidance is needed to effectively understand the process of upgrading and downgrading.</p>
response	<p>Noted</p> <p>Please refer to the amended Circular 329, which is now Circular 355.</p>

comment	<p>1150 comment by: <i>SAS</i></p> <p>Supported</p>
response	<p>Noted</p> <p>EASA would like to thank you for your support regarding the proposed changes.</p>

comment	<p>1224 comment by: <i>ACI Europe</i></p> <p>Page152 presents that RWYCC=0 or 1 may be UPGRADED to maximum RWYCC=3. UPGRADE may be based on friction measurements (pages 154 and 155). However, page 156 table does NOT allow UPGRADE of RWYCC=0 based friction measuring device. Please clarify which rule is the correct one to apply: the plain text on pages 152-155 or the table on page 156?</p> <p>The over 40 years experience of ACI EUROPE's Finnish members using BV11 device have shown a good safety record. This has been achieved by correct usage of the friction measuring device. Correct use can be defined as:</p> <ul style="list-style-type: none"> - appropriate initial user training - annual user refreshment training - weekly calibration of each device - annual overhaul of each device
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response	<p>- respect of the device environmental envelope eq. maximum depth per different contaminant types (water, slush, wet snow and dry snow). It would be unacceptable not to allow usage of friction measuring device to UPGRADE RWYCC=0 class. See suggested revised table (see attachment provided by FINAVIA incorporated in comment 1223).</p> <p>Noted</p> <p>Table 1 has been deleted. Friction measuring devices cannot be used solely for upgrading or downgrading purposes but only in a comparative way and as a part of the overall assessment. Furthermore, there are no generally accepted standards for friction measuring devices.</p>
comment	<p>1225 comment by: <i>ACI Europe</i></p> <p>The text in the initial section (a) and (b) does not harmonise with table 1. According to the text friction measurements are possible to use as part of the downgrading process. However table 1 states that downgrade using friction measurements is not possible at all RWYCC.</p> <p>The paragraph and table 1 should be clarified by emphasising that friction measurements may be used as a part of the overall downgrade process for all RWYCC. COMMENT: Suggest deleting item (d) Table 1, item e) and item f).</p> <p>RATIONALE: There is considerably lack of coherence between the table describing when friction measuring devices are allowed and the examples of other aspects to be considered in runway slipperiness for the downgrade process. Examples: Vehicle behaviour and shoe scraping. This leaves a notion of lack of credibility and need to be revised in order to ensure the required high level of confidence in the rules by aerodrome.</p>
response	<p>Noted</p> <p>Table 1 has been deleted. Friction measuring devices cannot be used solely for upgrading or downgrading purposes but only in a comparative way and as a part of the overall assessment. Furthermore, there are no generally accepted standards for friction measuring devices.</p>
comment	<p>1325 comment by: <i>Swedish Transport Agency</i></p> <p>COMMENT: In (a) after first colon, insert comma after type as shown: ‘their type, depth and coverage,’</p> <p>RATIONALE: Editorial</p> <p>COMMENT: In (c), last sentence, modify to read: If friction measuring device is used in the process Upgrade/Downgrade process, Upgrading is conditioned on the friction measuring device meeting the established standards and supported by all other aspects, such as listed in point (b) above.</p>

	<p>RATIONALE: To clarify that friction measuring devices <i>can be</i>, but not <i>must be</i> used.</p> <p>COMMENT: In (d), first sentence. Suggest ‘If friction measurements are used as part....’</p> <p>RATIONALE: To clarify that friction measuring devices can be, but not must be used</p> <p>COMMENT: In (f), Insert ‘if used’ to make the last sentence read ‘the friction measuring device, if used, should demonstrate an equivalent friction to that of a wet runway (RWYCC 5) or higher.</p> <p>RATIONALE: To clarify that friction measuring devices can be, but not must be used</p>
response	Noted
comment	<p>1446 comment by: CAA Finland</p> <p>The upgrade/downgrade should be allowed based on friction measurements. The possibility not upgrade RWYCC 0 or 1 to no higher than RWYCC 3 if the friction measuring device doesn’t demonstrate an equivalent friction to that of a wet runway (RWYCC 5) or higher is unreasonable.</p>
response	<p>Noted</p> <p>Table 1 has been deleted. Friction measuring devices cannot be used solely for upgrading or downgrading purposes but only in a comparative way and as a part of the overall assessment. Furthermore, there are no generally accepted standards for friction measuring devices.</p>
comment	<p>1458 comment by: Norwegian Air (Norwegian Air Norway, Norwegian Air International, Norwegian Air UK and Norwegian Air Shuttle)</p> <p>Supported.</p>
response	<p>Noted</p> <p>EASA would like to thank you for your support regarding the proposed changes.</p>
comment	<p>1687 comment by: Atle Vivas</p> <p>GM2 ADR.OPS.B. GM2 ADR.OPS.B. GM2 ADR.OPS.B.037(b) Assessment of runway surface condition and assignment of runway condition code</p>



	<p>COMMENT: In (a) after first colon, insert comma after type as shown: ‘their type, depth and coverage,’</p> <p>RATIONALE: Editorial</p> <p>COMMENT: In (c), last sentence, modify to read: If friction measuring device is used in the process Upgrade/Downgrade process, Upgrading is conditioned on the friction measuring device meeting the established standards and supported by all other aspects, such as listed in point (b) above.</p> <p>RATIONALE: To clarify that friction measuring devices <i>can be</i>, but not <i>must be</i> used.</p> <p>COMMENT: In (d), first sentence. Suggest ‘If friction measurements are used as part....’</p> <p>RATIONALE: To clarify that friction measuring devices can be, but not must be used</p> <p>COMMENT: In (f), Insert ‘if used’ to make the last sentence read ‘the friction measuring device, if used, should demonstrate an equivalent friction to that of a wet runway (RWYCC 5) or higher.</p> <p>RATIONALE: To clarify that friction measuring devices can be, but not must be used</p>
response	Noted

comment	<p>1827 comment by: Copenhagen Airports A/S</p> <p>Subject: Up- and downgradig</p> <p>Proposal: Add coloumn with friction coefficients as FAA RCAM.</p> <p>Justification:</p> <p>Friction measurement equipment can be used as a relatively trend measurement of slipperyness. As an example FROST on runway surfaces would initially set RWYCC to 5. FROST can be very slippery under certain conditions. The friction measurements can support the assessment if FROST is slippery. The friction measurements can in this case be used to downgrade RWYCC. Furthermore ICAO regulation have no guidance on how to assess when FROST will be more slippery.</p> <p>If a thin layer (up to 3 mm) of dry snow covers the runway it can soon turn into compacted snow (pressure from aircraft tires) and eventually turn into conditions with ice on top of compacted snow (reported as ice) with circumstances of temperatures around the freezing point. Temperatures at Copenhagen Airports during the winter season are common around the freezing point. Observations of changes in contaminent type along 3000 meter takes time when its done manually. The friction measurement equipment can support the overall assessment if downgrading is needed. In the above mentioned case with dry snow turns from RWYCC 5 to RWYCC 3 to rwycc 1 over a relative short time period and its crucial that RWYCC is updated as soon as possible.</p>
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response Noted

Table 1 has been deleted. Friction measuring devices cannot be used solely for upgrading or downgrading purposes but only in a comparative way and as a part of the overall assessment. Furthermore, there are no generally accepted standards for friction measuring devices.

comment 1842 comment by: *Danish Transport, Construction and Housing Authority*

Comment to GM2.037(b)(d) table 1 - Question: Why is "frost" classified as RWYCC 6 in the frictiontable, but as a RWYCC 5 in the RCAM?

Furthermore we are not convinced that "frost" should be classified as RWYCC 6, when "frost" can be very slippery in Denmark because of the humidity.

response Noted

Table 1 has been deleted.

comment 1912 comment by: *IATA*

IATA / Fedex concern:

On para f):

TALPA RCAM specifically states that the friction values must be better than a mu of .40 for that third of the runway.

response Noted

EASA is following the ICAO proposal.

AMC1 ADR.OPS.B.037(c) Assessment of runway surface condition and assignment of runway condition code p. 156-157

comment 146 comment by: *Aerodrome safety regulation departement*

ICAO appellation has been modified from AIREP to SPECIAL AIR-REPORTS whereas this change is not developed in the related rationale. Moreover, this change creates inconsistency with NPA 2016-11 to R (UE) 965/2012 which still uses the term AIREP. We suggest to keep the AIREP appellation.

response Accepted

comment 306 comment by: *Finnair*

Page 156,
point f): "When used for upgrading purposes, a preponderance of evidence should



	<p>exist. In order to upgrade a RWYCC 0 or 1 to no higher than RWYCC 3, the friction measuring device should demonstrate an equivalent friction to that of a wet runway (RWYCC 5) or higher."</p> <p>COMMENTS: This is an unacceptable requirement. When upgrading from RWYCCs 0 or 1 to max RWYCC3, the requirement can not be that the measured friction would be equivalent to a RWYCC 5 condition. This limitation would destroy the basic idea of an upgrade possibility. As a northern operator Finnair has substantial and extensive experience in operating in winter conditions, and our operations are also based on computing runway performance with a reported friction value. The Finnish airport authority FINAVIA also has expert knowledge of winter runways and the measuring devices. For us, the upgrade principles are of utmost importance, and they must not be destroyed by a requirement stated in point f) of page 156. Furthermore, this requirement is not in line with ICAO Annex 14 or Doc 9981.</p> <p>PROPOSAL: Finnair proposes to delete point f).</p>
response	<p>Noted</p> <p>Friction values cannot be used solely for upgrading or downgrading purposes. Please refer to the revised text.</p>
comment	<p>839 comment by: CAA Norway</p> <p>AMC1 ADR.OPS.B.037(c) Assessment of runway surface condition and assignment of runway condition code</p> <p>COMMENT: In this AMC, the term SPECIAL AIR REPORT is used, in other the term 'pilot report' is used. It is suggested to use an appropriate term throughout. See earlier commentsR</p> <p>ATIONALE: Editorial, to ensure consistency in the use of terms.</p>
response	<p>Accepted</p>
comment	<p>1151 comment by: SAS</p> <p>Supported</p>
response	<p>Noted</p> <p>EASA would like to thank you for your support regarding the proposed changes.</p>
comment	<p>1326 comment by: Swedish Transport Agency</p>



	<p>COMMENT: In this AMC, the term SPECIAL AIR REPORT is used, in other the term 'pilot report' is used. It is suggested to use an appropriate term throughout. See earlier comments</p> <p>RATIONALE: Editorial, to ensure consistency in the use of terms.</p>
response	Accepted
comment	<p>1692 comment by: <i>Atle Vivas</i></p> <p>AMC1 ADR.OPS.B.037(c) Assessment of runway surface condition and assignment of runway condition code</p> <p>COMMENT: In this AMC, the term SPECIAL AIR REPORT is used, in other the term 'pilot report' is used. It is suggested to use an appropriate term throughout. See earlier comments</p> <p>RATIONALE: Editorial, to ensure consistency in the use of terms.</p>
response	Accepted
comment	<p>1880 comment by: <i>Danish Transport, Construction and Housing Authority</i></p> <p>Support CAA Norway</p>
response	Noted

GM1 ADR.OPS.B.037(c) Assessment of runway surface condition and assignment of runway condition code	p. 157
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comment	<p>147 comment by: <i>Aerodrome safety regulation departement</i></p> <p>ICAO appellation has been modified from AIREP to SPECIAL AIR-REPORTS whereas this change is not developed in the related rationale. Moreover, this change creates inconsistency with NPA 2016-11 to R (UE) 965/2012 which still uses the term AIREP. We suggest to keep the initial appellation : AIREP.</p>
response	Accepted
comment	<p>512 comment by: <i>AIRBUS</i></p> <p>Please amend "in which sufficient wheel braking was applied" with "to reach friction limitation."</p> <p>Justification: Identification of the braking action capability by the pilot or the aeroplane requires that sufficient braking is applied for the friction limit to be reached, i.e. on aeroplanes equipped with anti-skid systems, for this system to limit the braking force applied to avoid the tire from spinning down.</p>
response	Accepted

comment	842 comment by: CAA Norway GM1 ADR.OPS.B.037(c) Assessment of runway surface condition and assignment of runway condition code COMMENT: Supported
response	Noted EASA would like to thank you for your support regarding the proposed changes.
comment	1152 comment by: SAS Supported
response	Noted EASA would like to thank you for your support regarding the proposed changes.
comment	1693 comment by: Atle Vivas Supported
response	Noted EASA would like to thank you for your support regarding the proposed changes.
comment	1960 comment by: European Cockpit Association GM1 ADR.OPS.B.065 Visual aids and aerodrome electrical systems (RMT.0703) UNSERVICEABILITY OF STOP BARS In situations where the stop bars cannot be turned off because of a technical problem, the aerodrome operator may consider, inter alia, the following: (a) physically disconnecting the respective lit stop bar from its power supply; (b) physically obscuring the lights of the lit stop bar; (c) providing for a marshaller or a follow-me vehicle to lead the aircraft to cross the lit stop bar; or (d) using a different route, until the malfunctioning system has been repaired. ECA's comment: measure (b) is not necessary and has to be removed, because measures a,c,d are adequate and sufficient. It may easily lead to misunderstandings, if the physical obscuring has been done improperly.
response	Partially accepted The text has been reworded in a manner that satisfies the intent of the comment.

comment	481	comment by: <i>Federal Ministry of Transport Germany, Aerodrome Department</i>
	Das wording "The procedures should cover the situation[...]" sollte vermieden werden, da es fehlinterpretiert werden könnte ("to cover sth." ==> "cover, lid, cap, top").	
	Alternativer Vorschlag: "The procedures should resolve the situation [...]"	
response	Accepted The text has been amended.	

comment	843	comment by: <i>CAA Norway</i>
	AMC1 ADR.OPS.B.065 Visual aids and aerodrome electrical systems	
	COMMENT: Supported	
response	Noted EASA would like to thank you for your support regarding the proposed changes.	

comment	1153	comment by: <i>SAS</i>
	Supported	
response	Noted EASA would like to thank you for your support regarding the proposed changes.	

comment	1327	comment by: <i>Swedish Transport Agency</i>
	Supported.	
response	Noted EASA would like to thank you for your support regarding the proposed changes.	

comment	1696	comment by: <i>Atle Vivas</i>
	Supported	
response	Noted EASA would like to thank you for your support regarding the proposed changes.	

GM1 ADR.OPS.B.065 Visual aids and aerodrome electrical systems

p. 157-158

comment	845	comment by: <i>CAA Norway</i>
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	GM1 ADR.OPS.B.065 Visual aids and aerodrome electrical systems COMMENT: Supported
response	Noted EASA would like to thank you for your support regarding the proposed changes.
comment	1154 comment by: SAS Supported
response	Noted EASA would like to thank you for your support regarding the proposed changes.
comment	1371 comment by: <i>Andreas Herndler, CAA Austria</i> Austria's CAA has an objection to GM1 ADR.OPS.B.065 (a) because a disconnection of live circuits without any preparation may lead to serious physical injuries or fatalities of maintenance personnel! Thus, we suggest rephrasing that clause. It has to be considered that CCR's must be deenergized before conductive parts of stopbar's lights are being disconnected.
response	Noted Please note that the intent of the proposed guidance is to provide possible solutions to the issue, without prescribing the precautionary measures that need to be taken.
comment	1394 comment by: <i>Graz Airport</i> Austria's CAA has an objection to GM1 ADR.OPS.B.065 (a) because a disconnection of live circuits without any preparation may lead to serious physical injuries or fatalities of maintenance personnel! Thus, we suggest rephrasing
response	Noted Please note that the intent of the proposed guidance is to provide possible solutions to the issue, without prescribing the precautionary measures that need to be taken.
comment	1633 comment by: <i>F. Ehmoser</i> GM1 ADR.OPS.B.065 (a): A disconnection of live circuits without any preparation may lead to serious physical injuries or fatalities of maintenance personnel! Thus, we suggest rephrasing that clause. It has to be considered that CCR's must be deenergized before conductive parts of stopbar's lights are being disconnected.
response	Noted Please note that the intent of the proposed guidance is to provide possible solutions to the issue, without prescribing the precautionary measures that need to be taken.



comment	1697	comment by: <i>Atle Vivas</i>
	Supported	
response	Noted	
	EASA would like to thank you for your support regarding the proposed changes.	

AMC1 ADR.OPS.B.070 Aerodrome works safety

p. 158

comment	590	comment by: <i>Belgian CAA</i>
	<p>"relevant information should be provided to the Competent Authority..." should already be covered by the management of change, especially in the case of operations with reduced declared distances.</p> <p>This gives the impression that operations with reduced runway length can be done only by informing the CAA which is not correct and against this regulation.</p>	
response	Noted	
	<p>The focus of the AMC is on the need to recalculate the declared distances, as part of the activities, and not on the required approval. Changes to the declared distances of the runway do affect the terms of the certificate.</p>	

comment	846	comment by: <i>CAA Norway</i>
	<p>AMCs and GMs (ALL) ADR.OPS.B.070 Aerodrome works safety</p> <p>COMMENT: Supported</p>	
response	Noted	
	EASA would like to thank you for your support regarding the proposed changes.	

comment	941	comment by: <i>Aleksandar Ilkovski</i>
	<p>AMC1 ADR.OPS.B.070(c):</p> <p>If procedures are affected the CAA approval is necessary otherwise NOTAM or other means of information should be sufficient.</p>	
response	Noted	
	<p>The focus of the AMC is on the need to recalculate the declared distances, as part of the activities, and not on the required approval. Changes to the declared distances of the runway do affect the terms of the certificate.</p>	

comment	1155	comment by: <i>SAS</i>
	Supported	



response	Noted EASA would like to thank you for your support regarding the proposed changes.
comment	1226 comment by: <i>ACI Europe</i> <u>Proposed revision:</u> The scope of work, physical extent, and time period should be notified to the relevant parties concerned. If such work will render limitations to the use of a particular runway, additional measures should be implemented to ensure safety. In case the works necessitate the temporary change of the declared distances of the runway, a recalculation of the declared distances should be performed, in accordance with an established procedure, and the relevant information should be provided to the Competent Authority, the air traffic services and aeronautical information services unit, before the implementation of the new declared distances. <u>Rationale:</u> Avoid double regulation. According to ADR.OR.B.040 (a)(1) changes to the terms of the certificate need prior approval of the competent authority. As per Annex 1, No 47 of regulation no 139/2014 the terms of the certificate comprise – inter alia – the declared distances. Hence, as per ADR.OR.B.040 there should be a formal process agreed between aerodrome operator and competent authority that is used for the change of declared distances – either on a permanent or temporary basis – as the case may be.
response	Noted The focus of the AMC is on the need to recalculate the declared distances, as part of the activities, and not on the required approval. Changes to the declared distances of the runway do affect the terms of the certificate.
comment	1328 comment by: <i>Swedish Transport Agency</i> Supported.
response	Noted EASA would like to thank you for your support regarding the proposed changes.
comment	1699 comment by: <i>Atle Vivas</i> Supported ALL
response	Noted EASA would like to thank you for your support regarding the proposed changes.

comment	<p>426 comment by: <i>Federal Ministry of Transport Germany, Aerodrome Department</i></p>
	<p>Die Implementierung der ICAO Recommendations in Unterpunkt b) und c) auf AMC Level hat weitreichende Folgen für die Sanierung von Flugplätzen und die entsprechenden Planungen der Flugplatzbetreiber sowie für behördliche Genehmigungsverfahren. Hier sollte sichergestellt werden, dass das Mehr an Sicherheit den Mehraufwand dahingehend rechtfertigt. Insbesondere kleinere Ausbesserungen müssen weiterhin möglich sein, um einen sicheren Flugbetrieb gewährleisten zu können. Wir schlagen daher vor, diese Punkte in das GM zu verschieben.</p>
response	<p>Not accepted</p> <p>These paragraphs transpose provisions of Annex 14 which are important for ensuring aircraft safety, while they concern runway overlays and not minor maintenance activities.</p>
comment	<p>943 comment by: <i>Aleksandar Ilkovski</i></p>
	<p>AMC2 ADR.OPS.B.070(b): Please explain the term 'down ramp'.</p>
response	<p>Noted</p> <p>The term 'down ramp', which is contained in Annex 14, has the meaning of a downward slope.</p>
comment	<p>972 comment by: <i>ADV - German Airports Association</i></p>
	<p>Please clarify if the term "any temporary threshold" also applies to temporary displaced thresholds.</p> <p>If yes, please clarify if the width of the transverse stripe should be conform with AMC2 ADR.OPS.B.070 (resulting in 3.6m width) or with CS ADR-DSN.L.535, section (c)(4) (resulting in 1.8m width).</p>
response	<p>Noted</p> <p>Please note that this paragraph has been in force since 2014 and is not amended. A temporary threshold may also include a temporary displaced threshold. See also GM5 ADR.OPS.B.070.</p>
comment	<p>1016 comment by: <i>Flughafen Berlin Brandenburg GmbH</i></p>
	<p>Please clarify if the term "any temporary threshold" also applies to temporary displaced thresholds. If yes, please clarify if the width of the transverse stripe should be conform with AMC2 ADR.OPS.B.070 (resulting in 3.6m width) or with CS ADR-DSN.L.535, section (c)(4) (resulting in 1.8m width).</p>

response	Noted Please note that this paragraph has been in force since 2014 and is not amended. A temporary threshold may also include a temporary displaced threshold. See also GM5 ADR.OPS.B.070.
comment	1156 comment by: SAS Supported
response	Noted EASA would like to thank you for your support regarding the proposed changes.
comment	1329 comment by: Swedish Transport Agency Supported.
response	Noted EASA would like to thank you for your support regarding the proposed changes.
comment	1377 comment by: Andreas Herndler, CAA Austria (b) and (c) should be transferred to GM
response	Not accepted These paragraphs transpose provisions of Annex 14 which are important for ensuring aircraft safety.
comment	1637 comment by: F. Ehmoser (b) and (c) to be transferred to GM
response	Not accepted These paragraphs transpose provisions of Annex 14 which are important for ensuring aircraft safety.

AMC4 ADR.OPS.B.070 Aerodrome works safety

p. 159

comment	1157 comment by: SAS Supported
response	Noted



EASA would like to thank you for your support regarding the proposed changes.

comment 1330 comment by: *Swedish Transport Agency*

Supported.

response Noted

EASA would like to thank you for your support regarding the proposed changes.

comment 1844 comment by: *Copenhagen Airports A/S*

Subject: (d)

Proposal: Move to GM.

Justification: Taxiways leading into the part of the new runway/taxiway is closed with lighting and marking.

response Noted

GM6 ADR.OPS.B.070 Aerodrome works safety

p. 159-160

comment 331 comment by: *John Hamshare (Heathrow)*

Page 159- GM6 ADR.OPS.B.070 – doesn't make sense – either make the old markings less visible or make the new markings more visible with reflective....not as written?

response Partially accepted

The proposed guidance does not concern old markings whose colour is difficult to identify. The proposed guidance concerns cases where there is lack of contrast between the colours foreseen for painting markings on a closed part of the manoeuvring area and the material used for the construction of that part of the manoeuvring area itself (e.g. white vs light grey). The guidance is built upon the analysis of a relevant serious incident, and the text has been amended to improve readability.

comment 847 comment by: *CAA Norway*

AMCs and GMs (ALL) ADR.OPS.B.070 Aerodrome works safety

COMMENT: Supported

response Noted

EASA would like to thank you for your support regarding the proposed changes.

comment 1158 comment by: *SAS*



	Supported
response	Noted EASA would like to thank you for your support regarding the proposed changes.
comment	1227 comment by: <i>ACI Europe</i> It is not clear what this is trying to say. Either make the old markings less visible or make the new markings more visible with reflective....markings that are meant to be seen should be visible and those removed temporarily should not be visible. Please clarify.
response	Partially accepted The proposed guidance does not concern old markings whose colour is difficult to identify. The proposed guidance concerns cases where there is lack of contrast between the colours foreseen for painting markings on a closed part of the manoeuvring area and the material used for the construction of that part of the manoeuvring area itself (e.g. white vs light grey). The guidance is built upon the analysis of a relevant serious incident, and the text has been amended to improve readability.
comment	1331 comment by: <i>Swedish Transport Agency</i> Supported.
response	Noted EASA would like to thank you for your support regarding the proposed changes.
comment	1801 comment by: <i>UAF (Union des Aéroports Français)</i> UAF fully support ACI E comment#1227
response	Noted Please refer to the reply to comment No 1227.
comment	1845 comment by: <i>Copenhagen Airports A/S</i> Subject: (a) Porposal: The wording 'whose color should be black' should be deleted. Justification: The contrast color should vary according to the type of pavement.
response	Noted



Given the colours of the foreseen markings, the black colour has been found to be more appropriate to provide the necessary contrast.

comment	1848	comment by: <i>Copenhagen Airports A/S</i>
	<p>Subject: (b) Proposal: The wording 'the closed runway or taxiway marking should be made with reflective materials' should be replaced with 'the closed runway or taxiway marking <u>may</u> be made with reflective materials'. Justification: Copenhagen Airports turn off all AGL during night time for the closed area. This can be more effective than reflective materials.</p>	
response	<p>Noted</p> <p>There is a need to ensure markings are visible. Please refer to the relevant specifications of Annex 14.</p>	

AMC1 ADR.OPS.B.075 Safeguarding of aerodromes

p. 160

comment	332	comment by: <i>John Hamshare (Heathrow)</i>
	<p>Page 160 AMC1 ADR.OPS.B.075 (a) "sightlines" instead of "visibility" – visibility has other meanings – fog, LVP etc – clear line of sight,...</p>	
response	<p>Accepted</p> <p>The text has been amended.</p>	
comment	472	comment by: <i>European Powered Flying Union</i>
	<p>AMC1 ADR.OPS.B.075 Safeguarding of aerodromes General p 160/207 (a) The aerodrome operator</p> <p>We propose to add "where applicable" or "where appropriate" or "where required by the nature of the operations" to the last sentence.</p> <p>Rationale This would add clarity to the applicability of the provision.</p>	
response	<p>Noted</p>	
comment	522	comment by: <i>UK CAA</i>
	<p>Page No: 160</p> <p>Paragraph No: AMC1 ADR.OPS.B.075 (a)</p>	



response	<p>Comment: With reference to the text in the sixth line: ‘... visibility from the air traffic control tower’, we recommend this should be replaced with ‘... sight lines from the air traffic control tower’</p> <p>Justification: Correct terminology</p> <p>Accepted</p> <p>The text has been amended.</p>
comment	<p>849 comment by: CAA Norway</p> <p>AMC1 ADR.OPS.B.075 Safeguarding of aerodromes</p> <p>COMMENT: Agree in principle. The aim of the procedures should be as stated. However, realistically there may not always be possible to achieve unobstructed view from the mentioned facilities over the whole movement area. In which case, there might be necessary to use technical means, such as cameras, as mitigating measures.</p> <p>RATIONALE: The comment is based on examples where cameras are needed and in use because aerodrome development also has to take into account historical and geographical constraints, mainly related to the view of apron areas being shadowed by terminals or hangars.</p> <p>response</p> <p>Noted</p> <p>The proposed AMC is based on the need to protect the sight lines from certain operational facilities, in the context of aerodrome safeguarding. EASA acknowledges the fact that in certain cases there may be obstructions which may be compensated by suitable technical means; however, even in such cases, an unobstructed view needs to be ensured.</p>
comment	<p>964 comment by: Aerodrome safety regulation departement</p> <p>The visibility from the RFFS station will be very demanding for aerodrome operators. many aerodromes are not compliant with this requirement and for obvious cost-effectiveness reasons, the requirement will never be fulfill on many plateforms which should lead to ask for systematic Altmoc. The visibility of the RFFS is not essential since the ATS is generally relaying the information in emergency cases. We suggest to remove this reference or downgrade it to a GM level.</p>
response	<p>Noted</p> <p>The proposed AMC is based on the need to protect the sight lines from certain operational facilities, in the context of aerodrome safeguarding. EASA acknowledges the fact that in certain cases there may be obstructions which may be compensated by suitable technical means; however, even in such cases, an unobstructed view needs to be ensured.</p>



With regard to the RFFS stations, the proposed AMC does not address the design of an RFFS station in terms of its location, nor does it impose a certain location or configuration. It addresses however the need to safeguard the sight lines of an already established watch room of an existing RFFS station, in order to enable the personnel of the RFFS watch room to discharge their tasks (please refer also to the ICAO Airport Services Manual Part 1).

comment	1159	comment by: SAS
	Supported	
response	Noted	
	EASA would like to thank you for your support regarding the proposed changes.	

comment	1228	comment by: ACI Europe
	<p>PROPOSED REVISION: The aerodrome operator should have procedures to monitor the changes in the obstacle environment, marking and lighting, and in human activities or land use on the aerodrome and the areas around the aerodrome, as defined in coordination with the Competent Authority. The scope, limits, tasks and responsibilities for the monitoring should be defined in coordination with the relevant air traffic services providers and with the Competent Authority and other relevant authorities, and should ensure the protection of the visibility from the air traffic control tower, the apron management services unit, and the watch room of the RFFS station, from permanent or temporary obstacles or activities.</p> <p>RATIONALE: Is not always possible to ensure the visibility when the airport is continually developed, and the visibility is obstructed by new buildings or other changes. Visibility may be compensated by use of monitoring technology or inspections. When using remote tower technology visibility will be ensured by various camera systems and sensor-technology.</p>	
response	Noted	
	<p>The proposed AMC is based on the need to protect the sight lines from certain operational facilities, in the context of aerodrome safeguarding. EASA acknowledges the fact that in certain cases there may be obstructions which may be compensated by suitable technical means; however, even in such cases, an unobstructed view needs to be ensured.</p>	

comment	1332	comment by: Swedish Transport Agency
	<p>COMMENT: Agree in principle. The aim of the procedures should be as stated.</p> <p>However, realistically there may not always be possible to achieve unobstructed view from the mentioned facilities over the whole movement area. In which case, there might be necessary to use technical means, such as cameras, as mitigating measures.</p>	



response	<p style="text-align: center;">RATIONALE: The comment is based on examples where cameras are needed and in use because aerodrome development also has to take into account historical and geographical constraints, mainly related to the view of apron areas being shadowed by terminals or hangars.</p> <p>Noted</p> <p>The proposed AMC is based on the need to protect the sight lines from certain operational facilities, in the context of aerodrome safeguarding. EASA acknowledges the fact that in certain cases there may be obstructions which may be compensated by suitable technical means; however, even in such cases, an unobstructed view needs to be ensured.</p>
comment	<p>1671 comment by: <i>Brussels Airport Company</i></p> <p>Is added text still relevant with all modern technologies available e.g. remote tower operations, LVP, ...</p>
response	<p>Noted</p> <p>The proposed AMC is based on the need to protect the sight lines from certain operational facilities, in the context of aerodrome safeguarding. EASA acknowledges the fact that in certain cases there may be obstructions which may be compensated by suitable technical means; however, even in such cases, an unobstructed view needs to be ensured.</p>
comment	<p>1700 comment by: <i>Atle Vivas</i></p> <p>AMC1 ADR.OPS.B.075 Safeguarding of aerodromes</p> <p>COMMENT: Agree in principle. The aim of the procedures should be as stated. However, realistically there may not always be possible to achieve unobstructed view from the mentioned facilities over the whole movement area. In which case, there might be necessary to use technical means, such as cameras, as mitigating measures.</p> <p>RATIONALE: The comment is based on examples where cameras are needed and in use because aerodrome development also has to take into account historical and geographical constraints, mainly related to the view of apron areas being shadowed by terminals or hangars.</p>
response	<p>Noted</p> <p>The proposed AMC is based on the need to protect the sight lines from certain operational facilities, in the context of aerodrome safeguarding. EASA acknowledges the fact that in certain cases there may be obstructions which may be compensated by suitable technical means; however, even in such cases, an unobstructed view needs to be ensured.</p>
comment	<p>1802 comment by: <i>UAF (Union des Aéroports Français)</i></p> <p>UAF fully support ACI E comment#1228</p>



response

Noted

Please refer to the reply to comment No 1228.

comment

1846

comment by: *Danish Transport, Construction and Housing Authority*

Comment: AMC1.ADR.OPS.B.075(a): It is not taken into account that not all fire Stations are not located so that they can take part in the supervision of the aerodrome. Therefore there requirement should be formulated so that the fire Stations not necessarily have to be located so it has to have a view over the track system. Thus this requirement should apply “If applicable”.

Otherwise we Support CAA Norway

response

Noted

The proposed AMC is based on the need to protect the sight lines from certain operational facilities, in the context of **aerodrome safeguarding**. EASA acknowledges the fact that in certain cases there may be obstructions which may be compensated by suitable technical means; however, even in such cases, an unobstructed view needs to be ensured.

With regard to the RFFS stations, the proposed AMC does not address the design of an RFFS station in terms of its location, nor does it impose a certain location. It addresses however the need to safeguard the sight lines of an **already established watch room of an existing RFFS station**, in order to enable the personnel of the RFFS watch room to discharge their tasks (please refer also to ICAO Airport Services Manual Part 1).

comment

1891

comment by: *Copenhagen Airports A/S*

Subject: Safeguarding visibility.

Proposal: Move to GM.

Justification: We support the intention. The current AMC is already defining the coordination. Additional clarifications should be placed under GM.

response

Noted

AMC1 ADR.OPS.B.080 Marking and lighting of vehicles and other mobile objects

p. 160

comment

983

comment by: *PL CAA Aerodrome Department*

In the draft amendment of **AMC1 ADR.OPS.B.080(a)** in section LIGHTING OF VEHICLES letter (b), PL CAA proposes to delete the expression “or security” as a consequence of the proposed correction in ADR.OPS.B.080 letter (a)(2).

“AMC1 ADR.OPS.B.080(a) Marking and lighting of vehicles and other mobile objects (RMT.0703)



[.....]
 LIGHTING OF VEHICLES
 (b) Lighting of vehicles should be as follows:
 (1) [.....];
 (2) Low-intensity obstacle lights, Type C, displayed on vehicles associated with emergency or security should be flashing-blue and those displayed on other vehicles should be flashing-yellow;”

response Not accepted
 The proposed provision addresses a relevant Annex 14 standard.

comment 1160 comment by: SAS
 Supported

response Noted
 EASA would like to thank you for your support regarding the proposed changes.

comment 1333 comment by: Swedish Transport Agency
 Supported.

response Noted
 EASA would like to thank you for your support regarding the proposed changes.

comment 1702 comment by: Atle Vivas
 Supported ALL

response Noted
 EASA would like to thank you for your support regarding the proposed changes.

comment 1803 comment by: UAF (Union des Aéroports Français)
 UAF fully support ACI E comment#1229

response Noted
 Please refer to the reply to comment No 1229.

GM1 ADR.OPS.B.080 Marking and lighting of vehicles and other mobile objects p. 161

comment 1161 comment by: SAS
 Supported



response Noted
EASA would like to thank you for your support regarding the proposed changes.

AMC1 ADR.OPS.B.080(a) Marking and lighting of vehicles and other mobile objects p. 161-162

comment 333 comment by: *John Hamshare (Heathrow)*
Page 161-162 – AMC2ADR.OPS.B.080(a)
Not all mobile objects need to be lit (baggage trailers for example). This contradicts ADR.OPS.B.080(b)(1)

response Noted
The AMC contains the characteristics for the markings and lighting of vehicles in accordance with point (a) of ADR.OR.B.080. If an aerodrome operator exempts, in accordance with ADR.OPS.B.080 point (b)(1), aircraft servicing equipment or vehicles from the relevant requirement, then the AMC is not relevant anymore.

comment 350 comment by: *Avinor AS*
COMMENT:
(a) (1) there should be developed a GM to this point
Proposal to new GM
GMxx ADR.OPS.B.080(a); (a) (1)
(a) The conspicuous colours should cover at least 25 percent of the side, front and back of the vehicle.
RATIONALE:
Vehicles have different forms and large window surfaces. In particular, maintenance vehicles are difficult to cover with conspicuous colours on the entire visible surface.
COMMENT:
(b) (2) blue flashing lights should only be used in emergency situations. In Norway the roads authority only allow blue flashing lights on specially approved vehicles with drives issued a special driving licence only in emergency situations.
RATIONALE: Item (b) (2) is in conflict with public roads use and national traffic regulations.

response Noted
The proposed text already exists in the relevant certification specifications since 2014, which transposed the corresponding Annex 14 SARPs.
The proposed AMC deals only with the specifications of the lights and markings, to be installed in accordance with the proposed ADR.OPS.B.080. The use of such lights is governed in different requirements.

comment 523 comment by: *UK CAA*
Page No: 162



	<p>Paragraph No: AMC2 ADR.OPS.B. 080 (a)</p> <p>Comment: Sub section (b)(1) makes reference to low intensity lights on mobile objects – this is not practical for all baggage trollies as they do not all have an electrical power supply. Suggest reference should be made to ‘all other powered mobile objects’</p>
response	<p>Noted</p> <p>The proposed text already exists in the relevant certification specifications since 2014, which transposed the corresponding Annex 14 SARPs. Please also note the possibility to exempt aircraft servicing equipment or vehicles in accordance with ADR.OPS.B.080 point (b)(1), which would then make this AMC not relevant anymore.</p>
comment	<p>851 comment by: CAA Norway</p> <p>AMCs (ALL) to ADR.OPS.B.080(a) Marking and lighting of vehicles and other mobile objects</p> <p>COMMENT: Supported</p>
response	<p>Noted</p> <p>EASA would like to thank you for your support regarding the proposed changes.</p>
comment	<p>1162 comment by: SAS</p> <p>Supported</p>
response	<p>Noted</p> <p>EASA would like to thank you for your support regarding the proposed changes.</p>
comment	<p>1229 comment by: ACI Europe</p> <p>Ref. to AMC 2: Not all mobile objects need to be lighted (baggage trailers for example). This contradicts ADR.OPS.B.080(b)(1).</p>
response	<p>Noted</p> <p>The AMC contains the characteristics for the markings and lighting of vehicles in accordance with paragraph (a) of ADR.OPS.B.080. If an aerodrome operator exempts, in accordance with ADR.OPS.B.080 point (b)(1), aircraft servicing equipment or vehicles from the relevant requirement, then the AMC is not relevant anymore.</p>
comment	<p>1334 comment by: Swedish Transport Agency</p> <p>Supported.</p>



response	Noted EASA would like to thank you for your support regarding the proposed changes.
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AMC1 ADR.OPS.C.005 General

p. 162-163

comment	427 comment by: <i>Federal Ministry of Transport Germany, Aerodrome Department</i>
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response	Noted
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comment	852 comment by: <i>CAA Norway</i>
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AMCs (BOTH) and GM to ADR.OPS.C.005 General
COMMENT: Supported

response	Noted EASA would like to thank you for your support regarding the proposed changes.
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comment	1163 comment by: <i>SAS</i>
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Supported

response	Noted EASA would like to thank you for your support regarding the proposed changes.
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comment	1335 comment by: <i>Swedish Transport Agency</i>
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Supported.

response	Noted EASA would like to thank you for your support regarding the proposed changes.
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comment	1372 comment by: <i>Andreas Herndler, CAA Austria</i>
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The replacement of parts of equipment that may be required in accordance with the availability of the supply of spare parts and by the reliability of the system.

(2) (iv) should be transferred to GM

response	Noted
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The proposed AMC refers to the elements that need to be taken into account for the development of a maintenance programme. The manufacturer's instructions need to be taken into account when developing such a programme.

comment 1568 comment by: Graz Airport

The replacement of parts of equipment that may be required in accordance with the availability of the supply of spare parts and by the reliability of the system.

response Noted

comment 1641 comment by: F. Ehmoser

(2) (iv) to be transferred to GM

response Noted

The proposed AMC refers to the elements that need to be taken into account for the development of a maintenance programme. The manufacturer's instructions need to be taken into account when developing such a programme.

comment 1703 comment by: Atle Vivas

Supported

response Noted

EASA would like to thank you for your support regarding the proposed changes.

GM1 ADR.OPS.C.005 General

p. 163

comment 473 comment by: European Powered Flying Union

AMC1 ADR.OPS.C.005 General
Maintenance Programme
p 162 and 163/207

Question

Do third party vehicles (belonging to handling agents caterers, fuellers, snow removers ect.) fall under these provisions? If yes: who is entitled to impose the tasks described on the vehicle owners/operators?

response Noted



AMC1 ADR.OPS.C.005 does not cover third-party vehicles.

comment 833 comment by: *Aena Aeropuertos, S.A.*
 * Apparition of "etc." → generates interpretations

response Noted
 Not all systems or facilities may be available at an aerodrome. Therefore, the aerodrome operator needs to analyse the elements that are covered by the maintenance programme.

comment 1164 comment by: *SAS*
 Supported

response Noted
 EASA would like to thank you for your support regarding the proposed changes.

comment 1336 comment by: *Swedish Transport Agency*
 COMMENT: Supported.

response Noted
 EASA would like to thank you for your support regarding the proposed changes.

comment 1704 comment by: *Atle Vivas*
 Supported

response Noted
 EASA would like to thank you for your support regarding the proposed changes.

AMC1 ADR.OPS.C.007(a) Maintenance of vehicles p. 163-164

comment 428 comment by: *Federal Ministry of Transport Germany, Aerodrome Department*
 Siehe Anmerkungen zu ADR.OPS.C.007

response Noted

comment 841 comment by: *Aena Aeropuertos, S.A.*
 * Specify what type of vehicles are referred to.
 * Stablish individual program "for each type" of vehicle instead of "for each" vehicle



response	Noted The vehicles for which a maintenance programme is required are defined in the relevant requirement. The maintenance programme needs to cover individual vehicles.
comment	853 comment by: CAA Norway AMC1 ADR.OPS.C.007(a) Maintenance of vehicles COMMENT: Supported
response	Noted EASA would like to thank you for your support regarding the proposed changes.
comment	936 comment by: ADV - German Airports Association Not practical. See ACI Europe Comment on ADR.OPS.C.007.
response	Noted
comment	1165 comment by: SAS Supported
response	Noted EASA would like to thank you for your support regarding the proposed changes.
comment	1230 comment by: ACI Europe According to the rationale, the proposed text of AMC1 ADR.OPS.C.007(a) to (h) is based on the ICAO Airport Services Manual – Part 1. This document covers RFFS topics only. By generalising the original ICAO text, this AMC has a much broader content and seems to be applicable for all vehicles on the movement area. The requirements for RFFS vehicles seem to be applied to all other vehicles at an aerodrome which leads to an unacceptable (administrative) burden while it does not (or at a micro-level) contributes to aircraft safety. This proposed AMC is therefore deemed to be over-regulated when it applies to all vehicles and should be redrafted in collaboration with stakeholders and moved to GM .
response	Noted
comment	1337 comment by: Swedish Transport Agency Supported.
response	Noted



EASA would like to thank you for your support regarding the proposed changes.

comment 1673 comment by: *Brussels Airport Company*

Based on ICAO Airport Services Manual part 1 which is specifically for RFFS vehicles. This is a dangerous evolution where ICAO Docs will be put into rulemaking. The wording also implies that this is applicable to all vehicles on the movement area.

Proposal to relocate from AMC to GM.

response Noted

comment 1804 comment by: *UAF (Union des Aéroports Français)*

UAF fully support ACI E comment#1230

response Noted

Please refer to the reply to comment No 1230.

AMC1 ADR.OPS.C.007(b)(1) Maintenance of vehicles

p. 164

comment 429 comment by: *Federal Ministry of Transport Germany, Aerodrome Department*

Siehe Anmerkungen zu ADR.OPS.C.007

response Noted

comment 854 comment by: *CAA Norway*

AMC1 ADR.OPS.C.007(b)(1) Maintenance of vehicles

COMMENT: Supported

response EASA would like to thank you for your support regarding the proposed changes.

comment 936 ❖ comment by: *ADV - German Airports Association*

Not practical. See ACI Europe Comment on ADR.OPS.C.007.

response Noted

Please refer to the reply to the relevant comment.

comment 1166 comment by: *SAS*

Supported



response	Noted EASA would like to thank you for your support regarding the proposed changes.
comment	1338 comment by: <i>Swedish Transport Agency</i> Supported.
response	Noted EASA would like to thank you for your support regarding the proposed changes.
comment	1705 comment by: <i>Atle Vivas</i> Supported
response	Noted EASA would like to thank you for your support regarding the proposed changes.

AMC1 ADR.OPS.C.007(b)(2) Maintenance of vehicles

p. 164-165

comment	162 comment by: <i>Aerodrome safety regulation departement</i> Point (a) of this AMC seems to imply that there are dedicated locations and equipment on the platform for vehicle maintenance. This could be a problem in cases where these services are outsourced. Moreover, as drafted, this provision seems to imply that the operator will contract maintenance for all vehicles on the platform, whereas some vehicles and equipment may belong to other companies (police, weather services, ground handling, etc.).
response	Partially accepted The requirement to which this AMC relates, concerns only the vehicles of the aerodrome operator and not the vehicles of other organisations. Therefore, this AMC is not applicable for vehicles of other organisations (e.g. groundhandling services providers, police, etc.). Point (a) of the AMC does not foresee the existence of maintenance facilities at the aerodrome, but only refers to the adequacy of the maintenance facilities. However, to avoid misinterpretation of the content of the AMC, the text has been reworded.
comment	430 comment by: <i>Federal Ministry of Transport Germany, Aerodrome Department</i> Siehe Anmerkungen zu ADR.OPS.C.007
response	Noted



comment	855	comment by: CAA Norway
	AMC1 ADR.OPS.C.007(b)(2) Maintenance of vehicles	
	COMMENT: Supported	
response	Noted EASA would like to thank you for your support regarding the proposed changes.	
comment	936 ❖	comment by: ADV - German Airports Association
	Not practical. See ACI Europe Comment on ADR.OPS.C.007.	
response	Noted Please refer to the reply to the relevant comment.	
comment	1167	comment by: SAS
	Supported	
response	Noted EASA would like to thank you for your support regarding the proposed changes.	
comment	1339	comment by: Swedish Transport Agency
	Supported.	
response	Noted EASA would like to thank you for your support regarding the proposed changes.	
comment	1706	comment by: Atle Vivas
	Supported	
response	Noted EASA would like to thank you for your support regarding the proposed changes.	

AMC1 ADR.OPS.C.007(b)(3) Maintenance of vehicles

p. 165

comment	431	comment by: Federal Ministry of Transport Germany, Aerodrome Department
	Siehe Anmerkungen zu ADR.OPS.C.007	



response

Noted

comment

856

comment by: CAA Norway

AMC1 ADR.OPS.C.007(b)(3) Maintenance of vehicles

COMMENT: Supported

response

Noted

EASA would like to thank you for your support regarding the proposed changes.

comment

936 ❖

comment by: ADV - German Airports Association

Not practical. See ACI Europe Comment on ADR.OPS.C.007.

response

Noted

Please refer to the reply to the relevant comment.

comment

1168

comment by: SAS

Supported

response

Noted

EASA would like to thank you for your support regarding the proposed changes.

comment

1340

comment by: Swedish Transport Agency

Supported.

response

Noted

EASA would like to thank you for your support regarding the proposed changes.

comment

1707

comment by: Atle Vivas

Supported

response

Noted

EASA would like to thank you for your support regarding the proposed changes.

AMC1 ADR.OPS.C.007(c) Maintenance of vehicles

p. 165

comment

432 comment by: Federal Ministry of Transport Germany, Aerodrome Department



	Siehe Anmerkungen zu ADR.OPS.C.007
response	Noted
comment	857 comment by: CAA Norway AMC1 ADR.OPS.C.007(c) Maintenance of vehicles COMMENT: Supported COMMENT: Add New AMC2 ADR.OPS.C.007(c) Maintenance of vehicles to read: 'The principles for maintenance and maintenance programs for vehicles operated on the movement area by other organisations should equally comply with the contents of the AMCs applicable to vehicles operated by the aerodrome operator.' RATIONALE: Such vehicles should be maintained to the same standards, since failures or break-downs could have serious consequences and increase the probability of collision with aircraft, other vehicles or pedestrians. Further, they might provide an increased probability to generate FOD.
response	Partially accepted A new AMC has been added, to facilitate compliance with the requirement.
comment	936 ❖ comment by: ADV - German Airports Association Not practical. See ACI Europe Comment on ADR.OPS.C.007.
response	Noted Please refer to the reply to the relevant comment.
comment	944 comment by: Aleksandar Ilkovski AMC1 ADR.OPS.C.007(c): This requires trained and qualified personnel. This causes a significant financial impact upon the aerodrome operator.
response	Noted
comment	1169 comment by: SAS Supported
response	Noted EASA would like to thank you for your support regarding the proposed changes.
comment	1341 comment by: Swedish Transport Agency



	<p>COMMENT: Supported</p> <p>COMMENT: Add New AMC2 ADR.OPS.C.007(c) Maintenance of vehicles to read: 'The principles for maintenance and maintenance programs for vehicles operated on the movement area by other organisations should equally comply with the contents of the AMCs applicable to vehicles operated by the aerodrome operator.' RATIONALE: Such vehicles should be maintained to the same standards, since failures or break-downs could have serious consequences and increase the probability of collision with aircraft, other vehicles or pedestrians. Further, they might provide an increased probability to generate FOD.</p>
response	<p>Partially accepted</p> <p>A new AMC has been added, to facilitate compliance with the requirement.</p>
comment	<p>1661 comment by: F. Ehmoser</p> <p>definition of "other organisations" missing</p>
response	<p>Noted</p> <p>The wording covers all organisations.</p>
comment	<p>1680 comment by: Ruth (Spanish CAA)</p> <p>AMC1 ADR.OPS.C.007(c) Clarification is requested regarding the scope of this audit, as to determine if it will require the performance of a specific audit (with its associated procedures), or whether it can be replaced by the control mechanisms currently used by the manager. These mechanisms are based on the contract documents with third-party companies. These documents include deliverables, quality indexes, requirements, etc, which are set in order to justify the periodic payments. It is proposed, in this regard, to modify the term "audit" by "control mechanisms".</p>
response	<p>Partially accepted</p> <p>The text has been amended in the suggested direction.</p>
comment	<p>1708 comment by: Atle Vivas</p> <p>Supported</p>
response	<p>Noted</p> <p>EASA would like to thank you for your support regarding the proposed changes.</p>
comment	<p>1829 comment by: SinaJobstHAM</p>



	Die Wartung von Fahrzeugen ist über die Verkehrs- und Zulassungsregeln festgelegt und zusätzlich mit Dritten vertraglich geregelt. Die Wartung von Fahrzeugen Dritter ist vom Flughafenbetreiber nicht leistbar.
response	Noted The obligation for the maintenance of the vehicle remains with the vehicle operator. The aerodrome operator needs to verify that vehicles of third organisations are maintained in accordance with a maintenance programme given that it issues the authorisation for vehicles to operate at the aerodrome. The proposed AMC does not conflict with any contractual or other obligation of such third organisations.
comment	1881 comment by: <i>Danish Transport, Construction and Housing Authority</i> Support CAA Norway
response	Noted EASA would like to thank you for your support regarding the proposed changes.

AMC1 ADR.OPS.C.007(a);(c) Maintenance of vehicles

p. 165-166

comment	433 comment by: <i>Federal Ministry of Transport Germany, Aerodrome Department</i> Siehe Anmerkungen zu ADR.OPS.C.007
response	Noted
comment	858 comment by: <i>CAA Norway</i> AMC1 ADR.OPS.C.007(a);(c) Maintenance of vehicles COMMENT: Supported
response	Noted EASA would like to thank you for your support regarding the proposed changes.
comment	936 ❖ comment by: <i>ADV - German Airports Association</i> Not practical. See ACI Europe Comment on ADR.OPS.C.007.
response	Noted Please refer to the reply to the relevant comment.
comment	1170 comment by: <i>SAS</i> Supported



response	Noted EASA would like to thank you for your support regarding the proposed changes.
comment	1342 comment by: <i>Swedish Transport Agency</i> Supported.
response	Noted EASA would like to thank you for your support regarding the proposed changes.
comment	1674 comment by: <i>Brussels Airport Company</i> Relocate to GM as this is mentioned in the rationale itself as best practice.
response	Noted
comment	1682 comment by: <i>Ruth (Spanish CAA)</i> <u>AMC1 ADR.OPS.C.007(a);(c)</u> Clarification is requested about the scope of the requirement, as to determine if it applies only to vehicles for immediate response or to all vehicles owned by the manager. Although it is considered essential that this checklist and evidence apply for the emergency vehicles, for the rest of the vehicles, the maintenance mechanisms already established by the manager could be considered sufficient (periodic preventive maintenance, corrective maintenance activated in case of detecting faults in the operation of any of the elements, etc.).
response	Noted This AMC is numbered ‘AMC1 ADR.OPS.C.007(a);(c)’ and therefore applies both to points (a) and (c), that is to the vehicles of the aerodrome operator and these of other organisations, and covers the preventive maintenance activities. However, to prevent misunderstandings, the numbering of the AMC have been rearranged.
comment	1709 comment by: <i>Atle Vivas</i> Supported
response	Noted EASA would like to thank you for your support regarding the proposed changes.
comment	1849 comment by: <i>Danish Transport, Construction and Housing Authority</i>



	<p>Comment: As mentioned before in ADR.OPS.C.007 - There should be a implementation period for 2-3 years, since the requirement is new - so it will take time for the aerodrome to implement an program like this.</p> <p>Furthermore we support CAA Norway</p>
response	<p>Noted</p> <p>EASA would like to thank you for your support regarding the proposed changes.</p>

GM1 ADR.OPS.C.007(e) Maintenance of vehicles

p. 166

comment 434 comment by: *Federal Ministry of Transport Germany, Aerodrome Department*

Siehe Anmerkungen zu ADR.OPS.C.007

response Noted

comment 859 comment by: *CAA Norway*

GM1 ADR.OPS.C.007(e) Maintenance of vehicles

COMMENT: Supported

response Noted

EASA would like to thank you for your support regarding the proposed changes.

comment 936 ❖ comment by: *ADV - German Airports Association*

Not practical. See ACI Europe Comment on ADR.OPS.C.007.

response Noted

Please refer to the reply to the relevant comment.

comment 1171 comment by: *SAS*

Supported

response Noted

EASA would like to thank you for your support regarding the proposed changes.

comment 1710 comment by: *Atle Vivas*

Supported

response Noted



EASA would like to thank you for your support regarding the proposed changes.

comment

1711

comment by: *Atle Vivas*

COMMENT: Add New **AMC2 ADR.OPS.C.007(c) Maintenance of vehicles** to read: 'The principles for maintenance and maintenance programs for vehicles operated on the movement area by other organisations should equally comply with the contents of the AMCs applicable to vehicles operated by the aerodrome operator.'

RATIONALE: Such vehicles should be maintained to the same standards, since failures or break-downs could have serious consequences and increase the probability of collision with aircraft, other vehicles or pedestrians. Further, they might provide an increased probability to generate FOD.

response

Partially accepted

A new AMC has been added, to facilitate compliance with the requirement.

AMC1 ADR.OPS.C.010 Pavements, other ground surfaces, and drainage

p. 166-167

comment

167

comment by: *Aerodrome safety regulation departement*

See comment 33 on ADR.OPS.C.010.

The proposed modification of point a) made it redundant with ADR.OPS.C.010 point 3) and as a consequence could be removed.

response

Accepted

comment

860

comment by: *CAA Norway*

Attachment [#24](#)

AMC1 ADR.OPS.C.010 Pavements, other ground surfaces, and drainage

COMMENT: In (a), insert 'surface' to have the first sentence read 'The aerodrome operator should maintain the surface of a paved runway in a condition so as to provide good surface friction characteristics and low rolling resistance.

RATIONALE: To ensure consistency of terms.

COMMENT: Insert new (b) Standards, as referred to in ADR.OPS.C.010(b)(3) and (b)(6) can be either a set of physical parameters describing important runway surface characteristics or friction level, or a combination of both

RATIONALE: A set of possible physical parameters is described in proposed new GM.

PROPOSAL: **ADD NEW GMX ADR.OPS.C.010 Pavements, other ground surfaces, and drainage.**



PHYSICAL CHARACTERISTICS

The objective of the set of physical characteristics listed should be that when they through design, construction and maintenance are adequately managed according to set standards ensure that the runway pavement is able to create enough grip by the aircraft tyre to ensure adequate aeroplane stopping and crosswind capability for the desired operation on a wet runway.

This is achieved by ensuring that there are:

- a) exposed texture capable of indenting the tyre rubber; and
- b) that water drains from the runway pavement

To achieve this there are the following aspects which are considered through design except for slope changes resulting in ponding or rutting or vegetation alongside the runway.

- c) Microtexture aspects
- d) Macrottexture aspects
- e) Drainage aspects

An inspection of the surface friction characteristics should as a minimum:

- a) ensure the presence of exposed microtexture by touching the polished or rubber coated aggregates
 - a. Assess roughly the amount of exposed microtexture in the area trafficked by aircraft, over a distance (rolling) of 100 m.
- b) ensure the presence of macrottexture
 - a. Macrottexture in a pavement providing adequate grip will average to 0.6 mm mean texture depth (MTD) or more. It is recommended to provide a mean texture depth of 1.0 mm.
- c) ensure that grooves, if present, are open and within set limits according to its design
- d) ensure that porous friction course, if present, drains according to its design
- e) ensure that slopes are above minimum design specifications. *[insert ref to paragraphs?]*

	Design	Function	Comment
Microtexture	Quality of aggregate	Resistance to polishing	Presence of microtexture can be felt by the touch. Sandpaperlike.
	Crushed	Create sharp (harsh) micro texture	Permit substantial penetration of thin fluid films.
	Smooth	Not appropriate for runway design. Provide poor surface friction characteristics	Smooth or polished surfaces have poor thin-film penetration properties
Macrottexture	Size of aggregate	Create escape channels for water in	When used in open graded and



		bituminous pavements	porous friction course pavements.
	Grooving	Create escape channels for water in concrete and bituminous pavements	Adds to the macrotexture and enhance the drainage capability.
Drainage	Runway slope (transverse)	Drains water from the pavement by gravity the shortest way if longitudinal slope is 0 %	
	Resulting runway slope (transverse and longitudinal)	Drains water from the pavement by gravity	The drainage path is longer if the longitudinal slope is different to 0 %.
	Slope changes - Ponding	Directs drainage path and can collect water in ponds.	Can create onset to aquaplaning which can continue on a shallower depth
	Slope changes - rutting	Directs drainage patch and can direct water in streams along tyre tracks	Can create onset of aquaplaning which will be maintained due to the stream of water present.
	Sand and vegetation	Slows down or stops the drainage from the pavement along the sides and in the pavements ends.	Combined with slopes outside the ICAO/EASA design envelope can create wet conditions in the area of runway trafficked by aeroplane.

The effect of grooving on macrotexture can be calculated for any groove geometry and surfacing macrotexture using the following equation, which is applicable to rectangular/square grooves:

$$M_g = \frac{WD + M_u (s-W)}{S}$$

Where M_g = grooved macrotexture;

W = groove width;

D = groove depth;



<p>M_u = ungrooved macrotexture</p> <p>S = groove spacing</p> <p>Monitoring the physical parameters</p>	
Physical parameter	How to monitor
Microtexture	<p>Presence of microtexture is ensured by touching the pavement surface. If it feels smooth (not sandpaper) there is a lack of microtexture, most common due to rubber deposits which normally should be visually detectable or by polishing.</p> <p>In either case the amount of free exposed microtexture must be assessed <i>[there exists scales ranging the amount of exposed texture and how to use them. They should be revisited and further developed.]</i></p>
Macrotexture	<p>Can be measured using volumetric or profile measurement method. and expressed by ESDU classification. ESDU 15002 groups runways into five classifications. The origin is arbitrary and the classifications are just chosen ones. These classifications are labelled "A" through "E" with "A" being the smoothest and "E" the most heavily textured. The classification can be used to range the runway texture relevant to the recommended texture depth which is 1.0 mm MTD.</p>
Drainage	<p>Slopes are within the ICAO/EASA design envelope. If the slope falls below the minimum level the runway becomes more susceptible to standing water during heavy rainfalls.</p>
- Ponding	<p>Visually during and after rain storm events as the runways dries up</p>
- Rutting	<p>Visually during and after rain storm events. The degree of rutting can be measured using a straightedge</p>
- Sand and vegetation	<p>Visually during and after rain storm events. Normally ordinary maintenance activities should prevent sand to accumulate and vegetation to form alongside the runway to such a degree that it becomes a hazard.</p>
<p>See attachement for clearance.</p>	
response	<p>Noted</p>

The first sentence in point (a) has been deleted because it has been transferred to ADR.OPS.C.010 point (3).

comment 1172 comment by: SAS

Supported

response Noted

EASA would like to thank you for your support regarding the proposed changes.

comment 1343 comment by: Swedish Transport Agency

Supported.

response Noted

EASA would like to thank you for your support regarding the proposed changes.

comment 1395 comment by: UAF (Union des Aéroports Français)

UAF understand the necessity to implement such periodic measurements but there are no details on how taking into consideration variables like number of jet aircraft movements per runway end, weight of aircraft, etc..

response Noted

Please refer to AMC1 ADR.OPS.C.010(b)(4).

comment 1714 comment by: Atle Vivas

AMC1 ADR.OPS.C.010 Pavements, other ground surfaces, and drainage

COMMENT: In (a), insert 'surface' to have the first sentence read 'The aerodrome operator should maintain the surface of a paved runway in a condition so as to provide good surface friction characteristics and low rolling resistance.

RATIONALE: To ensure consistency of terms.

COMMENT: Insert new (b) Standards, as referred to in ADR.OPS.C.010(b)(3) and (b)(6) can be either a set of physical parameters describing important runway surface characteristics or friction level, or a combination of both.

RATIONALE: A set of possible physical parameters is described in proposed new GM.

response Noted



The first sentence in point (a) has been deleted because it has been transferred to ADR.OPS.C.010 point (3).

comment

1718

comment by: *Atle Vivas*

PROPOSAL: ADD NEW GMX ADR.OPS.C.010 Pavements, other ground surfaces, and drainage.

PHYSICAL CHARACTERISTICS

The objective of the set of physical characteristics listed should be that when they through design, construction and maintenance are adequately managed according to set standards ensure that the runway pavement is able to create enough grip by the aircraft tyre to ensure adequate aeroplane stopping and crosswind capability for the desired operation on a wet runway.

This is achieved by ensuring that there are:

- a) exposed texture capable of indenting the tyre rubber; and
- b) that water drains from the runway pavement

To achieve this there are the following aspects which are considered through design except for slope changes resulting in ponding or rutting or vegetation alongside the runway.

- c) Microtexture aspects
- d) Macrottexture aspects
- e) Drainage aspects

An inspection of the surface friction characteristics should as a minimum:

- a) ensure the presence of exposed microtexture by touching the polished or rubber coated aggregates
 - a. Assess roughly the amount of exposed microtexture in the area trafficked by aircraft, over a distance (rolling) of 100 m.
 - b) ensure the presence of macrottexture
 - a. Macrottexture in a pavement providing adequate grip will average to 0.6 mm mean texture depth (MTD) or more. It is recommended to provide a mean texture depth of 1.0 mm.
 - c) ensure that grooves, if present, are open and within set limits according to its design
 - d) ensure that porous friction course, if present, drains according to its design
 - e) ensure that slopes are above minimum design specifications. *[insert ref to paragraphs?]*

	Design	Function	Comment
Microtexture	Quality of aggregate	Resistance to polishing	Presence of microtexture can be felt by the touch. Sandpaperlike.
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	Smooth	Not appropriate for runway design. Provide poor surface friction characteristics	Smooth or polished surfaces have poor thin-film penetration properties



Macrotexture	Size of aggregate	Create escape channels for water in bituminous pavements	When used in open graded and porous friction course pavements.
	Grooving	Create escape channels for water in concrete and bituminous pavements	Adds to the macrotexture and enhance the drainage capability.
Drainage	Runway slope (transverse)	Drains water from the pavement by gravity the shortest way if longitudinal slope is 0 %	
	Resulting runway slope (transverse and longitudinal)	Drains water from the pavement by gravity	The drainage path is longer if the longitudinal slope is different to 0 %.
	Slope changes - Ponding	Directs drainage path and can collect water in ponds.	Can create onset to aquaplaning which can continue on a shallower depth
	Slope changes - rutting	Directs drainage patch and can direct water in streams along tyre tracks	Can create onset of aquaplaning which will be maintained due to the stream of water present.
	Sand and vegetation	Slows down or stops the drainage from the pavement along the sides and in the pavements ends.	Combined with slopes outside the ICAO/EASA design envelope can create wet conditions in the area of runway trafficked by aeroplane.

The effect of grooving on macrotexture can be calculated for any groove geometry and surfacing macrotexture using the following equation, which is applicable to rectangular/square grooves:

$$M_g = \frac{WD + M_u(s-W)}{S}$$

- Where
- M_g = grooved macrotexture;
 - W = groove width;
 - D = groove depth;
 - M_u = ungrooved macrotexture
 - S = groove spacing

Monitoring the physical parameters

Physical parameter	How to monitor
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Microtexture	<p>Presence of microtexture is ensured by touching the pavement surface. If it feels smooth (not sandpaper) there is a lack of microtexture, most common due to rubber deposits which normally should be visually detectable or by polishing.</p> <p>In either case the amount of free exposed microtexture must be assessed <i>[there exists scales ranging the amount of exposed texture and how to use them. They should be revisited and further developed.]</i></p>
Macrotexture	<p>Can be measured using volumetric or profile measurement method. and expressed by ESDU classification. ESDU 15002 groups runways into five classifications. The origin is arbitrary and the classifications are just chosen ones. These classifications are labelled “A” through “E” with “A” being the smoothest and “E” the most heavily textured. The classification can be used to range the runway texture relevant to the recommended texture depth which is 1.0 mm MTD.</p>
Drainage	<p>Slopes are within the ICAO/EASA design envelope. If the slope falls below the minimum level the runway becomes more susceptible to standing water during heavy rainfalls.</p>
- Ponding	<p>Visually during and after rain storm events as the runways dries up</p>
- Rutting	<p>Visually during and after rain storm events. The degree of rutting can be measured using a straightedge</p>
- Sand and vegetation	<p>Visually during and after rain storm events. Normally ordinary maintenance activities should prevent sand to accumulate and vegetation to form alongside the runway to such a degree that it becomes a hazard.</p>
response	Noted

AMC2 ADR.OPS.C.010 Pavements, other ground surfaces, and drainage p. 167

comment	<p>334 comment by: <i>John Hamshare (Heathrow)</i></p> <p>Page 167 AMC2 ADR.OPS.C.010 Non-needed paint markings should not be painted over for a long duration, but doing so in the short term can be necessary. Some airports rely on contractors to paint/remove paint markings and this can take time to arrange. Temporarily painting over a marking is the only practicable option in the short term.</p>
response	<p>Noted</p> <p>The intent of the AMC is not how to address an emergency situation.</p>



comment	382	comment by: <i>Federal Office of Civil Aviation (FOCA), Switzerland</i>
	<i>Comment FOCA on AMC2 ADR.OPS.C.010 & AMC1 ADR.OPS.C.015(d): Both AMCs contain exactly the same text.</i>	
response	Accepted This duplicated text has been removed.	
comment	435	comment by: <i>Federal Ministry of Transport Germany, Aerodrome Department</i>
	Die Vorschläge zur Demarkierung von Flugplatzmarkierungen versprechen grundsätzlich eine Verbesserung der Situation nach der Entfernung von Markierungen auf der Bewegungsfläche. Da sich die Farbe mit dem Untergrund verbindet, bleibt zu befürchten, dass es nach dem Ablösen dennoch zu einem unterschiedlichen Oberflächenbild kommt.	
response	Noted	
comment	844	comment by: <i>Aena Aeropuertos, S.A.</i>
	* It is indicated that it is not allowed to eliminate an old mark by painting over, having to do a physical removing... In many cases, by operational emergencies, you have to paint over although finally it always ends up being physically removed.	
response	Noted The intent of the AMC is not how to address an emergency situation.	
comment	861	comment by: <i>CAA Norway</i>
	AMC2 ADR.OPS.C.010 Pavements, other ground surfaces, and drainage COMMENT: Supported	
response	Noted EASA would like to thank you for your support regarding the proposed changes.	
comment	1173	comment by: <i>SAS</i>
	Supported	
response	Noted EASA would like to thank you for your support regarding the proposed changes.	
comment	1231	comment by: <i>ACI Europe</i>



		<p>The complete removal – that is, without any remains of the marking – is challenging to achieve, depending on the paved surface. This holds true especially for older markings, which have been refreshed continuously over time. It is acknowledged that painting over a non-needed marking is a less desirable alternative to obliterate the marking. Nevertheless, it should still be allowed as one option, where complete removal is not practicable or to cover up remains of a marking. Please elaborate the rationale for introducing the requirement not to paint over any markings.</p>
response	Noted	<p>The intent of the AMC is to address runway confusion occurrences that have taken place due to the practice of painting over markings which were not needed anymore. This is also elaborated on the relevant guidance material that is provided.</p>
comment	1344	comment by: <i>Swedish Transport Agency</i>
		Supported.
response	Noted	EASA would like to thank you for your support regarding the proposed changes.
comment	1373	comment by: <i>Andreas Herndler, CAA Austria</i>
		<i>relocation o markings should read relocation of markings</i>
response	Accepted	The text has been amended.
comment	1668	comment by: <i>F. Ehmoser</i>
		relocation o markings should read relocation of markings
response	Accepted	The text has been amended.
comment	1719	comment by: <i>Atle Vivas</i>
		Supported
response	Noted	EASA would like to thank you for your support regarding the proposed changes.
comment	1806	comment by: <i>UAF (Union des Aéroports Français)</i>
		UAF support ACI E comment#1232



response	Noted Please refer to the reply to comment No 1232.
comment	1853 comment by: <i>Danish Transport, Construction and Housing Authority</i> Comment: " <i>In no case, a non-needed marking should be painted over</i> " should be rephrased to " <i>In no case should a non-needed marking be painted over</i> ".
response	Accepted The text has been amended.

GM4 ADR.OPS.C.010(b)(2) Pavements, other ground surfaces, and drainage

p. 168-169

comment	384 comment by: <i>Federal Office of Civil Aviation (FOCA), Switzerland</i> Comment FOCA on GM4 ADR.OPS.C.010(b)(2) & GM1 ADR.OPS.C.015(d): Both GMs contain exactly the same text and figure.
response	Accepted This duplicated text has been removed.
comment	585 comment by: <i>Zurich Airport</i> It should be considered, that, due to the local Swiss "Gewässerschutzverordnung" (water protection regulation) it is not allowed, that chemicals even diluted get into the sewage water system.
response	Noted
comment	862 comment by: <i>CAA Norway</i> GM4 ADR.OPS.C.010(b)(2) Pavements, other ground surfaces, and drainage COMMENT: Supported
response	Noted EASA would like to thank you for your support regarding the proposed changes.
comment	945 comment by: <i>Aleksandar Ilkovski</i> GM4 ADR.OPS.C.010(b)(2): Is this correct? The same text appear on page 182: GM1 ADR.OPS.C.015(d) Visual aids and electrical systems (RMT.0703)
response	Accepted



This duplicated text has been removed.

comment 1174 comment by: SAS

Supported

response Noted

EASA would like to thank you for your support regarding the proposed changes.

comment 1720 comment by: Atle Vivas

Supported

response Noted

EASA would like to thank you for your support regarding the proposed changes.

comment 1936 comment by: Gatwick Airport

Agree in principle but it is extremely difficult to effectively remove paint markings from asphalt surfaces without damaging the surface.

response Noted

GM1 ADR.OPS.C.010(b)(3) Pavements, other ground surfaces, and drainage

p. 169-172

comment 170 comment by: Aerodrome safety regulation departement

“Mu Meter” could refer to different devices (there are several models on the market). It is necessary to precise whether these minimum friction levels refer to the Mu Meter “MK6” or “FT256”.

Furthermore, the “Norsemeter RUNAR” is not used any more in France. Is it still used in Europe ? If not is it necessary to maintain it in the table?

Last line of the table , the word “Measure” should be replace by “Mesure” as in the IMAG French definition.

As equivalent standards are applicable at aerodromes following national regulation, we would agree with positioning the table at an AMC level.

response Noted

comment 335 comment by: John Hamshare (Heathrow)

Page 171 – GM1 ADR.OPS.C.010(b)(3) – question on page 172 re FAA table - surely AMC level?



response	Noted
comment	<p>374 comment by: Zurich Airport</p> <p>Zurich Airports Runway Safety Team supports the option to make use of the FAA table.</p>
response	Noted
comment	<p>394 comment by: Federal Ministry of Transport Germany, Aerodrome Department</p> <p>Die Tabelle in GM1 ADR.OPS.C.010b 3 sollte in allen Mitgliedstaaten auf AMC-Niveau angehoben werden, da ICAO keine Mindestreibungswerte festlegt, jedoch eine Festlegung durch die Staaten fordert. Durch die Aufnahme als AMC wäre eine einheitliche Umsetzung innerhalb der EU-Mitgliedstaaten nahezu gewährleistet und im Sinne der Standardisierung</p>
response	Noted
comment	<p>480 comment by: Avinor AS</p> <p>Question to stakeholders: Competent Authorities and aerodrome operators are asked to express their opinion whether the table should be at AMC or GM level, providing also the rationale behind their opinion?</p> <p>This table should remain at GM level. As described in the rationale given by the Agency is this no longer updated. This should be sufficient reason for the table not to be AMC.</p> <p>With regard to alternative methods for pavement trend monitoring Avinor support the comment issued by ACI Europe. In this respect the requirements for texture depth specified in CS.ADR.DSN.B.090(c) should be amended to allow for grooved runway surface. In such cases a mean texture depth (MTD) of 0.6 mm should be allowed.</p>
response	Noted
comment	<p>834 comment by: Aena Aeropuertos, S.A.</p> <p>* It is estimated that the table should be AMC in order to harmonize the friction measuring between the different states.</p>
response	Noted



comment	<p>907 comment by: CAA Norway</p> <p>GM1 ADR.OPS.C.010(b)(3) Pavements, other ground surfaces and drainage</p> <p>COMMENT: Change heading to MAINTENANCE PLANNING AND SET STANDARDS</p> <p>RATIONALE: The AMC uses the term good friction characteristics. Good friction characteristics are those which are above the minimum set standards for surface friction characteristics. It has to be consistent with the trend monitoring programme and also that the determination that a runway or portion thereof is slippery wet stems from various methods used by themselves or in combination.</p> <p>COMMENT: In (a) The proposed table should be removed and replaced by a table maintained by EASA reflecting those friction measuring devices that meets performance standard and threshold values set or agreed by States within EASA jurisdiction. In response to the question asked relevant to AMC or GM level, the EASA maintained table should be on AMC level to ensure a harmonised approach establishing device specific threshold values.</p> <p>RATIONALE: The table contain thresholds values for continuous friction measuring devices set or agreed by States both outside and within EASA jurisdiction. EASA and can create traceability for devices for which standard are set or agreed by States within its jurisdiction. EASA should only list devices where EASA can exercise jurisdiction. The table also list devices which are no longer in production and no longer supported.</p> <p>Norway has not approved, nor set or agreed any threshold values for any device.</p> <p>COMMENT: (b) should be deleted and replaced with: Friction measuring devices listed meet performance standards set by EASA.</p> <p>RATIONALE: Friction measuring devices needs to meet performance standards set by EASA to qualify inclusion in the EASA maintained table.</p> <p>COMMENT (c) Since the FAA table is replaced, (c) can be deleted.</p> <p>RATIONALE (c) reflects the non-representative quality of the FAA table relevant to today’s fleet of aircraft serving the aerodromes. There is significant difference with respect to the tyres and the anti-skid systems that the aircrafts are equipped with.</p>
response	Noted
comment	<p>1041 comment by: Fraport AG</p> <p>Answer to questions to stakeholders:</p> <p>It is important to keep the table for the maintenance planning, and minimum friction levels for runway surface in use at AMC level to ensure harmonization and standardized minimum friction levels across all member states.</p>
response	Noted
comment	<p>1175 comment by: SAS</p>



response	<p>Supported</p> <p>Noted</p> <p>EASA would like to thank you for your support regarding the proposed changes.</p>
comment	<p>1374 comment by: <i>Andreas Herndler, CAA Austria</i></p> <p>answer of AT: AMC</p>
response	<p>Noted</p>
comment	<p>1403 comment by: <i>ADV - German Airports Association</i></p> <p>Answer on <i>Question to Stakeholders</i>:</p> <p>There are different technical systems for assessing runway texture / runway friction. Using CFME is only one option. AMC have to provide equal basis for the use of different technologies. Putting the table as the only AMC would hinder the use of methods for assessing runway texture, for example.</p> <p>Therefore, in the context of the current NPA text the table should remain GM.</p>
response	<p>Noted</p> <p>EASA is introducing other methods as well, which do not rely on CFME.</p>
comment	<p>1722 comment by: <i>Atle Vivas</i></p> <p>GM1 ADR.OPS.C.010(b)(3) Pavements, other ground surfaces and drainage</p> <p>COMMENT: Change heading to MAINTENANCE PLANNING AND SET STANDARDS</p> <p>RATIONALE: The AMC uses the term good friction characteristics. Good friction characteristics are those which are above the minimum set standards for surface friction characteristics. It has to be consistent with the trend monitoring programme and also that the determination that a runway or portion thereof is slippery wet stems from various methods used by themselves or in combination.</p> <p>COMMENT: In (a) The proposed table should be removed and replaced by a table maintained by EASA reflecting those friction measuring devices that meets performance standard and threshold values set or agreed by States within EASA jurisdiction. In response to the question asked relevant to AMC or GM level, the EASA maintained table should be on AMC level to ensure a harmonised approach establishing device specific threshold values.</p> <p>RATIONALE: The table contain thresholds values for continuous friction measuring devices set or agreed by States both outside and within EASA jurisdiction. EASA and can create traceability for devices for which standard are set or agreed by States within its jurisdiction. EASA should only list devices where EASA can exercise jurisdiction. The table also list devices which are no longer in production and no longer supported.</p>



response	<p>Iceland has not approved, nor set or agreed any threshold values for any device.</p> <p>COMMENT: (b) should be deleted and replaced with: Friction measuring devices listed meet performance standards set by EASA.</p> <p>RATIONALE: Friction measuring devices needs to meet performance standards set by EASA to qualify inclusion in the EASA maintained table.</p> <p>COMMENT (c) Since the FAA table is replaced, (c) can be deleted.</p> <p>RATIONALE (c) reflects the non-representative quality of the FAA table relevant to today's fleet of aircraft serving the aerodromes. There is significant difference with respect to the tyres and the anti-skid systems that the aircrafts are equipped with.</p>
comment	<p>1882 comment by: <i>Danish Transport, Construction and Housing Authority</i></p>
response	<p>Supported</p> <p>Noted</p> <p>EASA would like to thank you for your support regarding the proposed changes.</p>
comment	<p>1937 comment by: <i>Gatwick Airport</i></p>
response	<p>Include friction at AMC level to help provide a standardised approach</p> <p>Noted</p>

AMC1 ADR.OPS.C.010(b)(4) Pavements, other ground surfaces, and drainage
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p. 172

comment	<p>863 comment by: <i>CAA Norway</i></p> <p>AMC1 ADR.OPS.C.010(b)(4) Pavements, other ground surfaces and maintenance</p> <p>COMMENT: Change heading to PERIODIC INSPECTION OF RUNWAY SURFACE FRICTION CHARACTERISTICS and rewrite text to read:</p> <p>‘The aerodrome operator when establishing a plan for periodic inspections of runway surface friction characteristics should take into consideration the number of aircraft movements per runway end, the speed and weight of the aircraft, the type and age of the surface of the runway as well as climate conditions and the required maintenance planning time.’</p> <p>RATIONALE: To bring consistency with use of terms and to address that planning time can be a significant factor that needs to be taken into account when scheduling the periodic inspection program. A complex and heavily trafficked aerodrome will necessarily be in need for a more upfront planning time than an aerodrome with</p>
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	limited aircraft movements a day. Maintenance planning time can also vary depending on the budgetary process.
response	Accepted The text has been revised as proposed; however, the maintenance planning time has not been included because it is not relevant to the frequency of the assessments, and instead of using the word ‘inspections’, the word ‘assessment’ is used.
comment	1176 comment by: SAS Supported
response	Noted EASA would like to thank you for your support regarding the proposed changes.
comment	1345 comment by: Swedish Transport Agency Supported.
response	Noted EASA would like to thank you for your support regarding the proposed changes.
comment	1676 comment by: Brussels Airport Company Relocate to GM because of the reference to ICAO Doc 9137
response	Noted
comment	1724 comment by: Atle Vivas AMC1 ADR.OPS.C.010(b)(4) Pavements, other ground surfaces and maintenance COMMENT: Change heading to PERIODIC INSPECTION OF RUNWAY SURFACE FRICTION CHARACTERISTICS and rewrite text to read: ‘The aerodrome operator when establishing a plan for periodic inspections of runway surface friction characteristics should take into consideration the number of aircraft movements per runway end, the speed and weight of the aircraft, the type and age of the surface of the runway as well as climate conditions and the required maintenance planning time.’ RATIONALE: To bring consistency with use of terms and to address that planning time can be a significant factor that needs to be taken into account when scheduling the periodic inspection program. A complex and heavily trafficked aerodrome will necessarily be in need for a more upfront planning time than an aerodrome with limited aircraft movements a day. Maintenance planning time can also vary depending on the budgetary process.
response	Accepted



The text has been revised as proposed; however, the maintenance planning time has not been included because it is not relevant to the frequency of the assessments, and instead of using the word ‘inspections’, the word ‘assessment’ is used.

comment

1837

comment by: AIRBUS

Attachment [#25](#)

Airbus suggests to add quantitative Guidance Material in EASA regulatory framework, such as ICAO Doc 9137 Part 2 (Appendix 2) Table A2-1 (or any other quantitative guidance), to further help aerodrome operator in the definition of the frequency of runway surface friction measurements for maintenance purpose.

Justification:

AMC1 ADR.OPS.C.010(b)(4) identifies, from a generic standpoint, the drivers that should be taken into consideration, as per ICAO Doc 9137 Part 2 method, when defining the frequency of runway surface friction measurements for maintenance purpose.

However ICAO Doc 9137 Part 2 (Appendix 2) - quoted within proposed change’s rationale – provides also quantitative guidance via Table A2-1 & related figures.

(see the table in attached file).

Without this table or any other quantitative guidance, this item seems void of practical implications. It would only establish general principles rather than a practical method concerning the frequency of the measurements of runway surface friction. Further quantitative guidance is required.

response

Partially accepted

EASA considers that it is not appropriate to use the Table as an AMC, but as GM.

comment

1843

comment by: Copenhagen Airports A/S

Subject:

“should take into consideration the number of jet aircraft movements per runway end, the weight of the aircraft, the type and age of the surface of the runway as well as climate conditions.”

Proposal: Move to GM.

Justification: It is assumed that AMC1 ADR.OPS.C.010(b)(4) refers only to measurement of friction in ICAO 9137 part 2. ICAO 9137 part 2 includes friction maintenance program for friction survey frequency and rubber removal frequency but only friction is indicated in AMC1.

The description must be clarified before the part can be part of AMC.

response

Not accepted

The title has been changed and now refers to surface friction characteristics, which do not include friction measurements only.

comment

1883

comment by: Danish Transport, Construction and Housing Authority



	Support CAA Norway
response	Noted

AMC2 ADR.OPS.C.010(b)(4) Pavements, other ground surfaces, and drainage	p. 172-173
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comment	864	comment by: CAA Norway
	AMC2 ADR.OPS.C.010(b)(4) Pavements, other ground surfaces and maintenance	
	COMMENT: Supported	

response	Noted
	EASA would like to thank you for your support regarding the proposed changes.

comment	1177	comment by: SAS
	Supported	

response	Noted
	EASA would like to thank you for your support regarding the proposed changes.

comment	1346	comment by: Swedish Transport Agency
	Supported.	

response	Noted
	EASA would like to thank you for your support regarding the proposed changes.

comment	1397	comment by: Graz Airport
	<i>relocation o markings</i> should read <i>relocation of markings</i>	

response	Accepted
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comment	1677	comment by: Brussels Airport Company
	Relocate to GM, reference is made to ICAO Circular 329	

response	Not accepted
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comment	1726	comment by: Atle Vivas
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response	Supported
	Noted
	EASA would like to thank you for your support regarding the proposed changes.

AMC3 ADR.OPS.C.010(b)(4) Pavements, other ground surfaces, and drainage

p. 173

comment	<p>173 comment by: <i>Aerodrome safety regulation departement</i></p> <p>The acceleration/deceleration distances mentioned are not realistic, according to the experience of the French CAA (DGAC/STAC). We would suggest to :</p> <ul style="list-style-type: none"> · Replace “150 m” by “200 m” for the acceleration distance, and replace “150 m” by “100 m” for the deceleration distance, <u>at 65 km/h</u> ; · Replace “300 m” by “400 m” for the acceleration distance, and replace “300 m” by “200 m” for the deceleration distance, <u>at 95 km/.</u> <p>In addition, we would suggest to mention that “this AMC only apply to <u>functional friction measurements</u>” (on dry and clean runways), on top of the paragraph.</p>
response	Noted

comment	<p>910 comment by: <i>CAA Norway</i></p> <p>Attachment #26</p> <p>AMC3 ADR.OPS.C.010(b)(4) Pavements, other ground surfaces and maintenance</p> <p>COMMENT: In heading change EQUIPMENT with DEVICE</p> <p>RATIONALE: For consistency within the document and to be compliant with ICAO terminology.</p> <p>COMMENT: New (d): The aerodrome layout or other circumstances may dictate other distances for maintaining personal safety for the operator of the friction measuring device.</p> <p>RATIONALE: Priority should be on the safety of the operator of the friction measuring device.</p> <p>PROPOSAL: ADD NEW AMC4 ADR.OPS.C.010(b)(4) Pavements, other ground surfaces and maintenance</p> <p>RUNWAY SURFACE FRICTION CHARACTERISTICS EVALUATION WITHOUT FRICTION MEASURING DEVICES</p> <p>The aerodrome operator when conducting surface friction characteristics evaluation of the pavement should</p> <p style="margin-left: 40px;">(a) Inspect the full width and length of the pavement.</p> <p style="margin-left: 20px;">a. Slopes</p> <p style="margin-left: 20px;">b. Texture</p> <p style="margin-left: 20px;">c. Drainage</p>
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- (b) Inspect the area symmetrical from the centre line that is representative of the wheel span of the aeroplanes operating on the runway with special focus on
 - a. Rubber deposits
 - b. Polishing of aggregates
- (c) Assess the amount of exposed texture.

RATIONALE: (text can be used in associated GMs.)

The objective of the runway surface friction characteristics evaluation should be to ensure that the runway pavement is able to create enough grip by the aircraft tyre to ensure adequate aeroplane stopping and crosswind capability for the desired operation on a wet runway.

The correct physics and mechanics should be applied. E.g. the physical and mechanical behavior of an aircraft tyre on a wet pavement providing grip on the pavement surface.

When a tyre is rolling on a wet pavement (free rolling without braking) the area of contact has a speed of 0 m/sec². **The area of contact does not move relative to the pavement. The texture of the pavement, both macro and micro, indent the rubber. These indenters cause the tyre to slip over them and thereby create horizontal forces without skidding.** The paradox is that a rolling aircraft tyre in the split second of contact with the pavement surface establish a grip at the area of contact. In order to establish grip there are micro movements in the rubber. **This micro movement is called slippage.**

On a dry surface there is in addition adhesive forces where the rubber and pavement are in direct contact. The adhesion phenomenon dominates in the dry and not in the wet regime. A wet pavement surface contributes almost no adhesion. That is why wet pavement surfaces may present a potential hazard to aeroplane operations. The wet pavement surface are very much dependent upon the surface friction characteristics.

In order to ensure adequate stopping and crosswind capability on a wet runway pavement there must be appropriate amount of indenters of adequate quality. These indenters are created through design and construction of the pavement and are related to the aggregates used in the pavements. Crushed aggregates exhibit a good microtexture, which is essential in obtaining good surface friction characteristics.

The horizontal forces can build up to but not exceed the static friction that can be generated in the contact area. If exceeding, there will be a macro movement relative to the pavement. **This macro movement is called skidding.**

Consequently, the pavement texture is fundamentally related to surface friction and focus should be on the **amount of exposed texture**. And in terms of friction coefficient; it is the static friction coefficient which is of interest.

Experience has shown that visual observations alone are insufficient for estimating degree of rubber accumulation or polishing. The microtexture is not apparent to the eye. The pavement surface itself must be touched by the hand to feel the amount of exposed texture left on the rubber coated surface. If the pavement does not feel “sandpapry” the aerodrome operator should conduct an extensive evaluation into the cause and extent of the reduction in exposed texture. The evaluation should cover



- a) Microtexture aspects
- b) Macrottexture aspects
- c) Drainage aspects

Wet runway surface friction characteristics is closely related to the drainage characteristics of a runway pavement. For guidance on monitoring surface friction characteristics see NEW **GMX ADR.OPS.C.010 Pavements, other ground surfaces, and drainage.**

RATIONALE: (text used in the context of the proposal.)

There is obviously a need to have an AMC covering the situation where the airport operator does not have a friction measuring device.

The other way around is not that obvious. Do an airport operator need to have a continuous friction measuring device?

Discussion on the adequacy of using continuous friction measuring devices to assess the amount of exposed texture.

The continuous surface friction measuring devices does not measure the static friction coefficient. The friction measuring devices are designed to measure the dynamic friction within the skidding regime of a tyre. There are various measuring principles available. However, the basic idea has been to simulate a braking wheel close to where it can measure peak friction. From the dimensionless number generated by the device interpretations into the amount of exposed texture has been sought and its implication on aeroplane stopping performance.

A question to be asked; What are we trying to accomplish? If the intent is studying the actual skidding and stopping performance, then the dynamic coefficient of friction regime is relevant. However, if the intent is to determine the safety regime for tyre grip (non-skidding) than the static coefficient of friction is of interest.

In the reasoning below it is outlined how wet friction measuring evolved in the FAA Advisory Circular 150/5320-12 Methods for the design, construction, and maintenance of skid resistant airport pavement surfaces in the period from 1972 to 2016, starting with 2016, going back in time. It can be seen by these limited extracts how focus has changed from texture to friction and how visual inspections cannot be relied upon evaluating friction.

Question to be asked before and while reading through the selected historic extracts;

1. Have focus on the main subject been lost; The amount of exposed texture which can indent the rubber of the tyre and create horizontal forces – tyre grip?
2. Has focus on relating the measured coefficient of friction to aircraft stopping performance overshadowed the simplistic approach of touching the pavement ensuring that there is an adequate amount of exposed texture present?

Selected historic review from FAA AC

2016 Draft AC 150/5320-12D, May 2, 2016

"3-16. VEHICLE SPEED FOR CONDUCTING SURVEYS. All of the approved CFME in APPENDIX E can be used at either 40 mph (65 km/h) or 60 mph (95 km/h). The lower speed provides an indication of the overall



microtexture/contaminant/drainage condition of the pavement surface. The higher speed provides an indication of the condition of the surface's macrotexture. A complete survey should include tests at both speeds."

"3-21. RECOMMENDED TESTING. When friction values meet the criteria in paragraph 3-20.a, 3-20.b and 3.20.c., no texture depth measurements are necessary. When friction values do not meet these criteria and the cause is not obvious (e.g. rubber deposits), the airport operator should perform texture depth measurements. 3-20.a, 3-20.b and 3-20.c refers to maintenance planning friction level and minimum friction level.

1997 The draft 12D version differs (role of the microtexture and macrotexture have changed) from the current 12C version of the document, dated 3/18/97:

"3-16. VEHICLE SPEED FOR CONDUCTING SURVEYS. All of the approved CFME in Appendix 4 can be used at either 40 mph (65 km/h) or 60 mph (95 km/h). The lower speed determines the overall macrotexture/contaminant/drainage condition of the pavement surface. The higher speed provides an indication of the condition of the surface's microtexture. A complete survey should include tests at both speeds."

As can be seen from the statement an indication of the surface's microtexture can be given by the higher speed. However it is not explained how to assess this indication other than that a complete survey should include tests at both speeds.

"4-2.The effectiveness of rubber deposit removal procedures cannot be evaluated by visual inspection. It is highly recommended that rubber deposit removal contract base payment on final tests by CFME.

Regarding visual evaluations it is argued that visual evaluation of pavement friction is not reliable.

"3-4 SURVEYS WITHOUT CFME. Research has shown that visual evaluations of pavement friction are not reliable. An operator of an airport that does not support turbojet operations who suspects that a runway may have inadequate friction characteristics should arrange for testing by CFME. Visual inspections are essential, however, to note other surface condition inadequacies such as drainage problems, including ponding and groove deterioration, and structural deficiencies."

1991 The 12B version of the document dated 11/12/91, gives following information:

"31. Surveys Without CFME – The FAA recommends that all airports serving a significant number of turbojet aircraft use CFME in accordance with section III of this chapter. CFME may be owned solely by the airport, borrowed from a nearby airport as needed, or owned by a pool for use at a number of airports. However, if CFME is not available, there are two basic methods of evaluating runway friction an airport operator should use to determine the need for corrective action. These two methods, systematic visual inspection of pavement surfaces and pavement texture measurement, are outlined in the following paragraphs: The frequency of conducting these surveys should be determined by reference to table 3-1 for each runway end. Table 3-1 is a table related to Number of daily turbojet aircraft landings per runway end.

"42. Vehicle Speed for Conducting Surveys - All of the approved CFME in Appendix 6 can be used at either 40 mph (65 km/h) or 60 mph (95 km/h). The lower speed is most often used and determines the overall macrotexture/contaminants/drainage condition of the pavement surface. If the airport operator suspects that the runway has microtexture problems (pavement does not feel "sandpaper" and/or aircraft report skidding only at higher speeds), measurements should also be made periodically at 60 mph (95 km/h)."



Table 3-2 Corrective action based on visual estimation of rubber deposits accumulated on runway

Description of rubber covering pavement texture in touchdown zone of runway as observed by evaluator	Classification of rubber deposit accumulation levels	Estimated range of MU values averaged 500 foot segments in touchdown zone	Suggested level of action to be taken by airport authority
Intermittent individual tire tracks. 95% of surface exposed	Very light	0.65 or greater	None
Individual tire tracks begin to overlap 80% to 94% surface texture exposed	Light	0.55 to 0.64	None
Central 20 foot traffic area covered 60% to 79% surface exposed	Light to Medium	0.50 to 0.54	Monitor deterioration closely
Central 40 foot traffic area covered 40% to 59% surface texture exposed	Medium	0,40 – 0,49	Schedule rubber removal within 120 days
Central 50 foot traffic are covered. 30% to 69% of rubber vulcanized and bonded to pavement surface. 20% to 39% surface texture exposed.	Medium to Dense	0.30 to 0.39	Schedule rubber removal within 90 days.
70 % to 95% of rubber vulcanized and bonded to pavement surface. Will be difficult to remove. Rubber has glossy or sheen look. 5% to 19% surface texture exposed	Dense	0,20 to 0,29	Schedule rubber removal within 60 days
Rubber completely vulcanized and bonded to surface. Will be very difficult to remove. Rubber has striations and glossy or sheen look. 0% to 4% surface texture exposed	Very dense	Less than 0.19	Schedule rubber removal within 30 days or as soon as possible.

1990 FAA correlated friction measuring devices with the Mu-Meter and introduced two new friction measuring tyres.



1986 The 12A version of the document dated 7/11/86, gives the following information under heading "11. PROCEDURES FOR CONDUCTING FRICTION MEASUREMENTS.":

"b Visual Inspection. Friction measurement surveys should include a visual inspection of the pavement surface condition according to the procedures given in paragraph 5. This information is used to supplement the data obtained from the friction measurements."

"e Vehicle Speed for Conducting Friction Measurements. The standard speed for conducting friction surveys is 40 mi/hr (65 km/hr). A higher speed of 60 mi/hr (97 km/hr), is needed to identify those pavements that have smooth surfaces (texture not apparent to the eye). Pavements with smooth surfaces are not easily identified at slower speeds and are known to be a problem for aircraft operating at high speeds (see paragraph 12d).

Paragraph 12d gives further information on how the measurement at higher speeds provide information:

"d. Friction Deterioration at Higher Speeds. When the difference between the averaged μ values over a distance of 500 feet (152 m) for speeds of 40 mph (65 kmh) and 60 mph (97 kmh) is greater than 10, the airport owner should conduct an extensive evaluation into the cause and extent of the friction deterioration and take corrective action to eliminate the situation.

Paragraph 5 gives information relevant to visual inspection and the need for touching the pavement surface:

"5. VISUAL INSPECTION OF RUNWAY PAVEMENT SURFACE CONDITION. When conducting friction surveys on runways, a record of the pavement surface condition should be taken to note the extent and amount of rubber accumulation on the surface; type and condition of pavement texture; evidence of drainage problems; surface treatment condition; and any evidence of pavement structural deficiencies. The extent and degree of rubber accumulation should be rated on a scale from zero to nine (no rubber accumulation to pavement texture completely covered). Experience has shown that visual observations alone are insufficient for estimating the degree of rubber accumulation. The pavement surface itself must be touched by the hand to feel the amount of exposed texture left on the rubber coated surface. Table 1-2 contains a method for classifying the degree of rubber accumulation; table 1-3 a method for coding condition of grooves in pavements; and table 1-4 a method for coding pavement surface type."

Table 1-2 classify the rubber accumulation by percentage covering of the texture and that corrective action should be taken when 70% is covered.

Table 1-3 classify the grooving condition and that corrective action should be taken when 50% of the depth remain.

Table 1-4 classify types of Asphalt concrete pavement and Portland cement concrete pavements and their macro and microtexture qualities including finishing methods.

1980 FAA conducted their National Runway Friction Measurement Program (1978-1980) involving 491 runways at 268 US airports gathered extensive texture and friction data. The report *National Runway Friction Measurement Program*, Report No. FAA-AAS-80-1, December 1980. Data from this program was used to update AC No: 150/5320-12.

1975 The first version of the document AC No: 150/5320-12, *METHODS FOR THE DESIGN, CONSTRUCTION, AND MAINTENANCE OF SKID RESISTANT AIRPORT PAVEMENT SURFACES*, dated June 30, 1975 refers only to the MU-meter friction measuring device operated at speed 40 mph.



	<p>1972 AC No: 150/5320-12 cancelled AC No: 150/5320-9, <i>USE OF A FRICTION MEASURING DEVICE IN ENGINEERING AND MAINTENANCE OF AIRPORT PAVEMENT SURFACES, dated 19 Sep 72</i>. The Advisory Circular refers only to the MU-Meter and contain no reference to vehicle speed.</p>
response	Accepted
comment	<p>1040 comment by: <i>Fraport AG</i></p> <p>Answer to question to stakeholders: In view of the question under GM1 ADR.OPS.C.010(b)(3) regarding the requirement for minimum friction level it would be illogical to put friction measuring speeds and distances (means for establishing a friction value) in AMC and the minimum friction values (the objective) in GM. It is suggested to put the requirements for minimum friction levels in AMC.</p>
response	Noted
comment	<p>1178 comment by: <i>SAS</i></p> <p>Supported</p>
response	<p>Noted</p> <p>EASA would like to thank you for your support regarding the proposed changes.</p>
comment	<p>1232 comment by: <i>ACI Europe</i></p> <p>COMMENT: This should be a GM. RATIONALE: If an aerodrome operator has a pavement management system that include periodic friction evaluations with continuous friction measuring equipment there should not be an AMC preventing the operator to change to another method to evaluate friction level in the future. As proposed, this will exclude other methods without having an approved AltMoc.</p>
response	Noted
comment	<p>1543 comment by: <i>CAA Norway</i></p> <p>Attachment #27</p> <p>RATIONALE: (text used in the context of the proposal.) Aircraft tyre tread compound – variance aspects in tyre/pavement interface</p> <p>1. When shifting the focus onto how an aircraft tyre produce grip there are some aspects with the conceptual approach that are in need of being further investigated.</p>



2. A question to be asked: Do the Aviation sector have the right focus on identifying the variance in wet grip capability of aircraft tyres?

3. There is limited information in the public domain regarding the basic assumptions relevant to aircraft tyres and their grip performance. There is however a statement in the March 1977 Technical Report ASD-TR-77-7, *Tire Runway Interface Friction Prediction Subsystem*, prepared by Boeing under a USAF contract.

"1. TIRE TREAD COMPUND

Pneumatic tires usually contain a variety of rubber compositions, each designed to contribute some particular factor to overall performance. Rubber compounds designed for a specific function will usually be similar but not identical in composition and properties, although in some cases there can be significant differences between compounds in tires of various types. The guiding principle in development of rubber compositions for tires is to achieve the best balance of properties for a particular type of tire service (ref. 8)

8. Clark; S.K.; Editor: Mechanics of Pneumatic Tires, National Bureau of Standards Monograph 122, 1971.

The manufacturers over the years have each developed their own tread compounding mixes and formulas and consider this as proprietary information. However, it is recognized that all aircraft tires are manufactured from natural rubber based polymers and their compounding from one manufacturer to the next one does not vary extensively. It will therefore not be considered as an independent variable for model formulation"

4. From the above statement there are the following variance aspects identified:

- a. Tire manufacturers proprietary information on compounding mixes and formulas.
- b. Balance of properties for a particular type of service

5. Regarding balancing of properties for a particular type of service; this will also include the performance tradeoff taking place in the manufacturing process between grip, low rolling resistance and resistance to wear. It is recognized that care should be exercised when applying principles arrived at in the automotive sector to the Aviation sector regarding tyres and tyre performance. However, at the high level of concepts as identified it should be rather safe to tradeoff concept.

6. If we move the automotive industry these aspects are managed and there exist a UN regulation. A table has been provided where both the automotive and aviation sector has been compared with regard to wet grip. It can be seen that within the automotive sector and approximately in the timeframe since the EASA came into being, EU has regulated **wet grip** of tyres and are proposing to regulate **Snow grip** and **Ice grip**.

7. What the comparison shows is the progress of identifying wet grip variance through UN and EU regulations in the automotive sector and the lack of progress within the Aviation sector.



response	Noted
comment	<p>1727 comment by: <i>Atle Vivas</i></p> <p>AMC3 ADR.OPS.C.010(b)(4) Pavements, other ground surfaces and maintenance COMMENT: In heading change EQUIPMENT with DEVICE RATIONALE: For consistency within the document and to be compliant with ICAO terminology.</p> <p>COMMENT: New (d): The aerodrome layout or other circumstances may dictate other distances for maintaining personal safety for the operator of the friction measuring device. RATIONALE: Priority should be on the safety of the operator of the friction measuring device.</p>
response	Accepted
comment	<p>1731 comment by: <i>Avinor AS</i></p> <p>With regard to alternative methods for pavement trend monitoring Avinor support the comment issued by ACI Europe. In this respect the requirements for texture depth specified in CS.ADR.DSN.B.090(c) should be amended to allow for grooved runway surface. In such cases a mean texture depth (MTD) of 0.6 mm should be allowed.</p>
response	Noted
comment	<p>1809 comment by: <i>UAF (Union des Aéroports Français)</i></p> <p>UAF support ACI E comment#1232</p>
response	Noted
comment	<p>1884 comment by: <i>Danish Transport, Construction and Housing Authority</i></p> <p>Support CAA Norway</p>
response	Noted

GM1 ADR.OPS.C.010(b)(4) Pavements, other ground surfaces, and drainage

p. 173-174

comment	<p>865 comment by: <i>CAA Norway</i></p> <p>GM1 ADR.OPS.C.010(b)(4) Pavements, other ground surfaces and maintenance</p>
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	<p>COMMENT: in (a) change “friction level” to “standards” and add text for the last part to readminimum standards, so as to avoid the runway becoming slippery wet.</p> <p>RATIONALE: Reflecting that the determination that a runway or portion thereof is slippery wet stems from various methods used by themselves or in combination.</p>
response	Accepted
comment	<p>1179 comment by: SAS</p> <p>Supported</p>
response	<p>Noted</p> <p>EASA would like to thank you for your support regarding the proposed changes.</p>
comment	<p>1742 comment by: Atle Vivas</p> <p>GM1 ADR.OPS.C.010(b)(4) Pavements, other ground surfaces and maintenance</p> <p>COMMENT: in (a) change “friction level” to “standards” and add text for the last part to readminimum standards, so as to avoid the runway becoming slippery wet.</p> <p>RATIONALE: Reflecting that the determination that a runway or portion thereof is slippery wet stems from various methods used by themselves or in combination.</p>
response	Accepted

GM2 ADR.OPS.C.010(b)(4) Pavements, other ground surfaces, and drainage	p. 174
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comment	<p>175 comment by: Aerodrome safety regulation departement</p> <p>For runways serving only narrow-body aircraft, current practices have shown that it is imposible to maintain a fix position from the runway centre line. We thus propose to modify point (a)(1) to allow an intervall between 3 and 5m.</p> <p>FRICION EVALUATIONS WITH CONTINUOUS FRICTION MEASURING EQUIPMENT</p> <p>(a) The lateral location on the runway for performing friction measurements is based on the type and/or mix of aircraft operating on the runway:</p> <p>(1) For runways serving only narrow-body aircraft, friction measurements should be conducted between 3 m and 5m from the runway centre line.</p> <p>(2) For runways serving narrow-body and wide-body aircraft, friction measurement should be conducted between 3 and 6 m from the runway centre line to determine the worst-case condition. If the worst-case condition is found to be consistently to one track, future measurements may be limited to this track. ...</p>
response	Accepted



comment	866	comment by: CAA Norway
	GM2 ADR.OPS.C.010(b)(4) Pavements, other ground surfaces and drainage	
	COMMENT: In heading change EQUIPMENT with DEVICE	
	RATIONALE: For consistency within the document and to be compliant with ICAO terminology.	
	COMMENT: In (b) there is reason for confusion. This is a confusing guidance material. Current FAA AC 150/5320-12C give the following and opposite information: “The lower speed determines the overall macrotexture/contaminant/drainage condition of the pavement surface. The higher speed provides an indication of the condition of the surface’s microtexture. A complete survey should include tests at both speeds.” The basic assumption supporting the statement needs to be clarified to bring clarity in what statement is correct Guidance should also be given on how to interpret the two measured results in combination, e.g. the difference in obtained measured results and its interpretation with regard to micro texture and macrotexture and its influence on speed dependency (potential for aquaplaning) on a wetted pavement surface.	
response	Accepted	
comment	1180	comment by: SAS
	Supported	
response	Noted EASA would like to thank you for your support regarding the proposed changes.	
comment	1743	comment by: Atle Vivas
	GM2 ADR.OPS.C.010(b)(4) Pavements, other ground surfaces and drainage	
	COMMENT: In heading change EQUIPMENT with DEVICE	
	RATIONALE: For consistency within the document and to be compliant with ICAO terminology.	
	COMMENT: In (b) there is reason for confusion. This is a confusing guidance material. Current FAA AC 150/5320-12C give the following and opposite information: “The lower speed determines the overall macrotexture/contaminant/drainage condition of the pavement surface. The higher speed provides an indication of the condition of the surface’s microtexture. A complete survey should include tests at both speeds.” The basic assumption supporting the statement needs to be clarified to bring clarity in what statement is correct	



	Guidance should also be given on how to interpret the two measured results in combination, e.g. the difference in obtained measured results and its interpretation with regard to micro texture and macrotexture and its influence on speed dependency (potential for aquaplaning) on a wetted pavement surface.
response	Accepted

AMC1 ADR.OPS.C.015 Visual aids and electrical systems

p. 174-175

comment	1181	comment by: SAS
	Supported	
response	Noted	
	EASA would like to thank you for your support regarding the proposed changes.	

comment	1746	comment by: Atle Vivas
	Supported	
response	Noted	
	EASA would like to thank you for your support regarding the proposed changes.	

AMC1 ADR.OPS.C.015(a);(f) Visual aids and electrical systems

p. 175

comment	177	comment by: Aerodrome safety regulation departement
	The requirements on maintenance of the electrical systems have been supplemented based on Doc 9137 part 9 (Airport Maintenance Practices). But Doc 9137 goes well beyond airport security issues addresses “special tasks in the interest of safety and regularity of air transport . Indeed, this document deals with all the components of an airport (heating, luggage conveyor,...).	
	This modification has led to add requirements on fixed ground power supplies (cf. point b7)) whereas these equipment can't be considered as safety equipment under CHAPTER I Article 2 .1 (e) of 2018-1139 but more an aid to the regularity of the traffic and thus should be deleted.	
response	Not accepted	
	These systems, if not properly maintained/used, may have an impact on aircraft safety and therefore the maintenance programme needs to address them as well.	

comment	867	comment by: CAA Norway
	AMC1 ADR.OPS.C.015(a);(f) Visual aids and electrical systems	



	<p>COMMENT: Consider to add a NOTE that National regulations pertaining to maintenance of electrical systems must be observed.</p> <p>RATIONALE: National authorities (electrical systems safety) may have important requirements, which must be observed, and these may differ between States since the design of the national electrical grid may differ between States.</p>
response	<p>Partially accepted</p> <p>Relevant guidance material has been added.</p>
comment	<p>1182 comment by: SAS</p> <p>Supported</p>
response	<p>Noted</p> <p>EASA would like to thank you for your support regarding the proposed changes.</p>
comment	<p>1233 comment by: ACI Europe</p> <p>Relocate to GM, reference to ICAO Doc 9137.</p>
response	<p>Noted</p> <p>Please refer also to the content of ICAO State Letter 25/2018.</p>
comment	<p>1347 comment by: Swedish Transport Agency</p> <p>Supported.</p>
response	<p>Noted</p> <p>EASA would like to thank you for your support regarding the proposed changes.</p>
comment	<p>1572 comment by: Graz Airport</p> <div style="border: 1px solid black; padding: 5px; margin: 5px 0;"> <p><i>Schedules of routine maintenance of the individual elements of the aerodrome's electrical systems should be based on manufacturers' instructions or qualified technical test facilities, adjusted to the aerodrome operator's experience regarding the frequency of malfunctions</i></p> </div>
response	<p>Noted</p>
comment	<p>1678 comment by: Brussels Airport Company</p>



response	<p>Relocate to GM, reference to ICAO Doc 9137</p> <p>Noted</p> <p>Please refer also to the content of ICAO State Letter 25/2018.</p>
comment	<p>1679 comment by: <i>F. Ehmoser</i></p> <p>(a) Schedules of routine maintenance of the individual elements of the aerodrome’s electrical systems should be based on manufacturers’ instructions or qualified technical test facilities, adjusted to the aerodrome operator’s experience regarding the frequency of malfunctions</p>
response	<p>Noted</p>
comment	<p>1685 comment by: <i>Ruth (Spanish CAA)</i></p> <p>AMC1 ADR.OPS.C.015(a);(f)</p> <p>Clarification is requested on the reason of why point 7 (fixed ground power supply for aircraft...) should be contained in the aerodrome maintenance program (in relation to safety). These elements that are intended for aircraft service, should be covered by other areas of the standard (for example, handling), but we believe they should not be included in the requirements for visual aids and electrical systems of the aerodrome (Regulation 139 /2014).</p>
response	<p>Noted</p> <p>These electrical systems are part of the aerodrome infrastructure which according to Annex VII to Regulation 2018/1139 is under the responsibility of the aerodrome operator and which, if not properly maintained/used, may have an impact on aircraft safety.</p>
comment	<p>1747 comment by: <i>Atle Vivas</i></p> <p>Supported</p>
response	<p>Noted</p> <p>EASA would like to thank you for your support regarding the proposed changes.</p>
comment	<p>1807 comment by: <i>UAF (Union des Aéroports Français)</i></p> <p>UAF support ACI E comment#1233</p>
response	<p>Noted</p> <p>Please refer to the reply to comment No 1233.</p>



comment	1885	comment by: Danish Transport, Construction and Housing Authority
	Support CAA Norway	
response	Noted	
	EASA would like to thank you for your support regarding the proposed changes.	

GM1 ADR.OPS.C.015(a);(f) Visual aids and electrical systems

p. 175-176

comment	868	comment by: CAA Norway
	GM1 ADR.OPS.C.015(a);(f) Visual aids and electrical systems	
	COMMENT: Supported	
response	Noted	
	EASA would like to thank you for your support regarding the proposed changes.	

comment	1183	comment by: SAS
	Supported	
response	Noted	
	EASA would like to thank you for your support regarding the proposed changes.	

comment	1748	comment by: Atle Vivas
	Supported	
response	Noted	
	EASA would like to thank you for your support regarding the proposed changes.	

GM1 ADR.OPS.C.015(b) Visual aids and electrical systems

p. 176-177

comment	946	comment by: Aleksandar Ilkovski
	GM1 ADR.OPS.C.015(b) : Special approval CAT 1 is not included in this list, should be consistent with 2018-06(D) – All weather operations.	
response	Accepted	
	The text is coordinated with the AWO rulemaking task.	

comment	1184	comment by: SAS
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response	Supported
	Noted EASA would like to thank you for your support regarding the proposed changes.
comment	1749 comment by: <i>Atle Vivas</i>
response	Supported
	Noted EASA would like to thank you for your support regarding the proposed changes.

GM2 ADR.OPS.C.015(b) Visual aids and electrical systems

p. 177

comment	869 comment by: <i>CAA Norway</i>
response	GM2 ADR.OPS.C.015(b) Visual aids and electrical systems COMMENT: Supported
	Noted EASA would like to thank you for your support regarding the proposed changes.
comment	1185 comment by: <i>SAS</i>
response	Supported
	Noted EASA would like to thank you for your support regarding the proposed changes.
comment	1751 comment by: <i>Atle Vivas</i>
response	Supported
	Noted EASA would like to thank you for your support regarding the proposed changes.

GM3 ADR.OPS.C.015(b) Visual aids and electrical systems

p. 178

comment	870 comment by: <i>CAA Norway</i>
response	GM3 ADR.OPS.C.015(b) Visual aids and electrical systems COMMENT: Supported



response	Noted EASA would like to thank you for your support regarding the proposed changes.
comment	1186 comment by: SAS Supported
response	Noted EASA would like to thank you for your support regarding the proposed changes.
comment	1752 comment by: Atle Vivas Supported
response	Noted EASA would like to thank you for your support regarding the proposed changes.

GM1 ADR.OPS.C.015(b);(c) Visual aids and electrical systems	p. 178
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comment	871 comment by: CAA Norway GM1 ADR.OPS.C.015(b);(c) Visual aids and electrical systems COMMENT: Supported
response	Noted EASA would like to thank you for your support regarding the proposed changes.
comment	1187 comment by: SAS Supported
response	Noted EASA would like to thank you for your support regarding the proposed changes.
comment	1753 comment by: Atle Vivas Supported
response	Noted EASA would like to thank you for your support regarding the proposed changes.

AMC1 ADR.OPS.C.015(b);(f) Visual aids and electrical systems	p. 178-180
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comment	<p>183 comment by: <i>Aerodrome safety regulation departement</i></p> <p>Flight checks cannot be required from aerodrome operators because first of all they are not cost-effective: very few of them will be able to afford and organize them. In addition, comparisons have been made between flight checks and ground checks and our technical experts have come to the conclusion that ground checks were far more accurate than flight checks. We thus suggest to remove this requirement.</p>
response	<p>Noted</p> <p>Ground checks do not focus on the same areas as flight checks do. Moreover, technological evolutions allow the use of cost-effective means for conducting such tests, while they can always be combined with other tests for non-visual aids, where available.</p>
comment	<p>353 comment by: <i>Avinor AS</i></p> <p>PROPOSED REVISION: AMC1 ADR.OPS.C.015(b);(f) Visual aids and electrical systems (RMT.0703) LIGHTING SYSTEMS GROUND CHECKS (a) As part of the maintenance programme, the lighting system maintenance activities should include ground checks. During the daily checks, the lighting systems should be checked at least for light failures, breakage or gross misalignment and correct operation of the intensity control system. The maintenance programme should identify the frequency of other checks that need to be performed throughout the year, as well as their content. Moreover, irrespective of the runway type, the aerodrome operator should ensure the serviceability of the lights by conducting photometric measurements, at appropriate intervals, as part of its maintenance programme.</p> <p>RATIONALE: The proposed removal of the last sentence will open for alternative methods for serviceability. Photometric measurements should be described as a part of the maintenance program, not as a daily inspection in AMC. Photometric measurements for operations on a precision approach runway category II and III will be required as described in AMC1 ADR.OPS.C.015(b);(f) (c)</p>
response	<p>Not accepted</p> <p>The proposed text does not specify that photometric tests should be performed as part of the daily inspections, but at appropriate intervals which are to be defined by the aerodrome operator. For CAT II/III runways, point (c) applies.</p>
comment	<p>872 comment by: <i>CAA Norway</i></p> <p>AMC1 ADR.OPS.C.015(b);(f) Visual aids and electrical systems COMMENT: Supported</p>
response	<p>Noted</p>

EASA would like to thank you for your support regarding the proposed changes.

comment 947 comment by: Aleksandar Ilkovski

AMC1 ADR.OPS.C.015(b);(f)(d):
Clarify and/or provide examples of what major maintenance is.

response Noted

comment 989 comment by: PL CAA Aerodrome Department

In the draft amendment of **AMC1 ADR.OPS.C.015(b);(f)** in section FLIGHT CHECKS letter (d), PL CAA proposes to delete VASIS and replace it with PAPI.

"AMC1 ADR.OPS.C.015(b);(f) Visual aids and electrical systems (RMT.0703)
FLIGHT CHECKS

(d) As part of the maintenance programme of the lighting systems, flight check of the approach and runway lighting systems, including ~~VASIS~~ PAPI, should be carried out at regular intervals, at least on a yearly basis, to ensure the pattern is correct and that lights are operating properly."

Rationale:

There are no CS's regarding VASIS, only PAPI. So all VASIS should be changed to PAPI (or PAPI should be added at least). PAPI is commonly used nowadays and also need to be check by flight inspections as well as other runway lights.

response Noted

The acronym 'VASIS', which is defined in the text, is used instead of the term "visual approach indicator systems", which covers both types of systems (PAPI, APAPI) foreseen in the relevant certification specifications.

comment 1188 comment by: SAS

Supported

response Noted

EASA would like to thank you for your support regarding the proposed changes.

comment 1234 comment by: ACI Europe

The requirement to perform flight checks stems from the Airport Services Manual, Part 8. The first edition of that document was published in 1983. Hence, other means to perform checks - which have been developed in the meantime - are not included. ACI EUROPE would ask for a clarification that those checks may be performed by drones as well. The sole use of aircraft for those checks would exclude cost effective solutions made feasible by today's technical possibilities.



response	Noted The proposed AMC does not specify the exact means to conduct a flight test, while the use of UAS is regulated by a separate regulatory framework.
comment	1348 comment by: <i>Swedish Transport Agency</i> Supported.
response	Noted EASA would like to thank you for your support regarding the proposed changes.
comment	1356 comment by: <i>Widerøe Flyveselskap AS</i> AMC1 ADR.OPS.C.015(b);(f) Visual aids an electrical systems RMT.0703 P. 178 Widerøe's Flyveselskap AS support procedures for operation of the intensity control system. However, it should not only focus on a minimum level of intensity at maximum, it should also consider a maximum level of intensity when the lights are dimmed to its minimum level. Flight Crew has reported, through the Occurrence Reporting System, LED approach lights, threshold lights and center line lights that could not be sufficiently dimmed at six Norwegian airports that have recently replaced some of its lighting systems with LED. The reports also indicate that it seems difficult for the airport operator to balance the intensity of lighting systems when operating LED in combination with incandescent lamps. This has resulted in extra workload on Flight Crew. In example Flight Crew request the TWR to select systems run by incandescent lamp at one percentage, while the LED systems are requested to a significantly lower percentage. The challenge, and problem, is that the LED systems at its lowest setting is still too bright for the human observer, or Flight Crew, when compared with the incandescent lamp.
response	Noted EASA will consider the need of developing additional material to facilitate compliance of aerodrome operators with the relevant specifications.
comment	1380 comment by: <i>Andreas Herndler, CAA Austria</i> Following adjustments are suggested: (c)(2) in-field measurements of the intensity, beam spread and orientation of elevated approach lights on fragile masts is not practicable.



	(4) a second in-field measurement should only be done when the first measurement is not according to GM1 ADR.OPS.C.015(b) Table - 1
response	<p>Noted</p> <p>The proposed text transposes relevant Annex 14 SARPs and therefore needs to be transposed at the appropriate level. The text provides the necessary flexibility for conducting the necessary measurements.</p>
comment	<p>1573 comment by: <i>Graz Airport</i></p> <div style="border: 1px solid black; padding: 5px; margin: 5px 0;"> <p>(c)(2) in-field measurements of the intensity, beam spread and orientation of elevated approach lights on fragile masts is not practicable. (4) a second in-field measurement should only be done when the first measurement is not according to GM1 ADR.OPS.C.015(b) Table - 1</p> </div>
response	<p>Noted</p> <p>The proposed text transposes relevant Annex 14 SARPs and therefore needs to be transposed at the appropriate level. The text provides the necessary flexibility for conducting the necessary measurements.</p>
comment	<p>1681 comment by: <i>Brussels Airport Company</i></p> <p>Reference to Annex 14 in Rationale is irrelevant (wrong reference). (a) may be retained as AMC, all the rest should be relocated to GM.</p>
response	<p>Partially accepted</p> <p>The correct reference to the transposed Annex 14 the SARPs are not paragraphs 10.4.3, 10.4.4, 10.4.5 and 10.4.6, but paragraphs 10.5.3, 10.5.4, 10.5.5 and 10.5.6. The text has been reviewed and is found to be at the appropriate level.</p>
comment	<p>1683 comment by: <i>F. Ehmoser</i></p> <p>(c)(2) in-field measurements of the intensity, beam spread and orientation of elevated approach lights on frangible masts are not practicable.</p>
response	<p>Noted</p> <p>The proposed text transposes relevant Annex 14 SARPs and therefore needs to be transposed at the appropriate level. The text provides the necessary flexibility for conducting the necessary measurements.</p>
comment	<p>1688 comment by: <i>F. Ehmoser</i></p>



	(c)(4) should read once a year instead of twice a year <i>a second in-field measurement should only be done when the first measurement is not according to GM1 ADR.OPS.C.015(b) Table - 1</i>
response	Noted The proposed text transposes relevant Annex 14 SARPs.
comment	1689 comment by: F. Ehmoser (c) (2) to detailed move to GM
response	Noted The proposed text transposes relevant Annex 14 SARPs and therefore needs to be at the appropriate level.
comment	1754 comment by: Atle Vivas Supported
response	Noted EASA would like to thank you for your support regarding the proposed changes.
comment	1811 comment by: UAF (Union des Aéroports Français) UAF fully support ACI E comment#1234
response	Noted Please refer to the reply to comment No 1234.

GM1 ADR.OPS.C.015(b);(f) Visual aids and electrical systems

p. 180-181

comment	835 comment by: Aena Aeropuertos, S.A. * (b) It is considered that, due to the size of some airports and the volume of there corresponding signs, the daily review of all the signs is not always feasible, so it is proposed to have a less demanding frequency.
response	Noted
comment	873 comment by: CAA Norway GM1 ADR.OPS.C.015(b);(f) Visual aids and electrical systems COMMENT: Supported



response	Noted EASA would like to thank you for your support regarding the proposed changes.
comment	997 comment by: PL CAA Aerodrome Department In the draft amendment of the GM1 ADR.OPS.C.015(b);(f) at the end of section “FLIGHT CHECKS”, PL CAA proposes to add the following sentence: “GM1 ADR.OPS.C.015(b);(f) Visual aids and electrical systems (RMT.0703) FLIGHT CHECKS Flight checks should be conducted at least on a yearly basis. [.....] <u>The flight checks may be carried out using unmanned aerial vehicles (UAVs) if appropriate procedures for these checks are approved by the competent authority.”</u> Rationale: UAV base procedures can effectively replace flight checks done by aircraft. Since there are many possibilities to use UAV, such procedures should be accepted by competent authority at first.
response	Noted The proposed AMC does not specify the exact means to conduct a flight test, while the use of UAS is regulated by a separate regulatory framework.
comment	1189 comment by: SAS Supported
response	Noted EASA would like to thank you for your support regarding the proposed changes.
comment	1381 comment by: Andreas Herndler, CAA Austria (h) is not possible
response	Noted
comment	1574 comment by: Graz Airport <div style="border: 1px solid black; padding: 5px; margin: 5px 0;">(h) it is not practicable to check the physical condition of electrical connectors of lights</div>
response	Noted



comment	1695	comment by: <i>F. Ehmoser</i>
	(h) it is not practicable to check the physical condition of electrical connectors of lights	
response	Noted	
comment	1755	comment by: <i>Atle Vivas</i>
	Supported	
response	Noted EASA would like to thank you for your support regarding the proposed changes.	

AMC1 ADR.OPS.C.015(d) Visual aids and electrical systems

p. 181

comment	336	comment by: <i>John Hamshare (Heathrow)</i>
	Page 181 – AMC1 ADR.OPS.C.015(d) – is a repeat of an earlier paragraph...	
response	Accepted The accidentally duplicated text has been removed.	
comment	383	comment by: <i>Federal Office of Civil Aviation (FOCA), Switzerland</i>
	<i>Comment FOCA on AMC2 ADR.OPS.C.010 & AMC1 ADR.OPS.C.015(d):</i> Both AMCs contain exactly the same text.	
response	Accepted The accidentally duplicated text has been removed.	
comment	392	comment by: <i>Federal Ministry of Transport Germany, Aerodrome Department</i>
	Die Vorgabe nicht mehr benötigte Markierungen physisch zu entfernen und keinesfalls durch Übermalen zu beseitigen wird begrüßt. Es ist jedoch ausreichend, wenn die Anforderung an die physische Entfernung von Markierungen in einem AMC geregelt wird und nicht wortgleich in zwei AMC enthalten ist. Der in beiden oben genannten AMC verwendete Begriff „... is not needed any longer, ...“ sollte dringend spezifiziert	
response	Accepted	



The accidentally duplicated text has been removed. A marking may need to be removed for various reasons and the proposed AMC (which focuses on the removal method) already provides some examples.

comment 874 comment by: CAA Norway

AMC1 ADR.OPS.C.015(d) Visual aids and electrical systems

COMMENT: Supported

response Noted

EASA would like to thank you for your support regarding the proposed changes.

comment 1190 comment by: SAS

Supported

response Noted

EASA would like to thank you for your support regarding the proposed changes.

comment 1235 comment by: ACI Europe

The text of the proposed "AMC1 ADR.OPS.C.015(d) Visual aids and electrical systems" is a duplication of AMC2 ADR.OPS.C.010 and GM4 ADR.OPS.C.010(b)(2) Pavement, other ground surfaces and drainage. This subject should therefore be required **under one AMC/GM**, not under both AMCs/GMs. The most logical option is to put the requirement under 'Visual aids and electrical systems' since it relates primarily to markings (visual aids) and not to pavement.

response Accepted

The accidentally duplicated text has been removed.

comment 1349 comment by: Swedish Transport Agency

Supported.

response Noted

EASA would like to thank you for your support regarding the proposed changes.

comment 1756 comment by: Atle Vivas

Supported

response Noted

EASA would like to thank you for your support regarding the proposed changes.



comment	1854	comment by: Danish Transport, Construction and Housing Authority
	Comment: "In no case, a non-needed marking should be painted over" should be rephrased to ""In no case should a non-needed marking be painted over".	
response	Accepted	
	The text has been amended.	

GM1 ADR.OPS.C.015(d) Visual aids and electrical systems

p. 182-183

comment	877	comment by: CAA Norway
	GM1 ADR.OPS.C.015(d) Visual aids and electrical systems	
	COMMENT: Supported	
response	Noted	
	EASA would like to thank you for your support regarding the proposed changes.	

comment	948	comment by: Aleksandar Ilkovski
	GM1 ADR.OPS.C.015(d): Same text as GM4 ADR.OPS.C.010(b)(2) Pavements, other ground surfaces, and drainage (RMT.0703)	
response	Accepted	
	The accidentally duplicated text has been removed.	

comment	1191	comment by: SAS
	Supported	
response	Noted	
	EASA would like to thank you for your support regarding the proposed changes.	

comment	1236	comment by: ACI Europe
	The text of the proposed "AMC1 ADR.OPS.C.015(d) Visual aids and electrical systems" is a duplication of AMC2 ADR.OPS.C.010 and GM4 ADR.OPS.C.010(b)(2) Pavement, other ground surfaces and drainage. This subject should therefore be required under one AMC/GM , not under both AMCs/GMs. The most logical option is to put the requirement under 'Visual aids and electrical systems' since it relates primarily to markings (visual aids) and not to pavement.	
response	Accepted	



The accidentally duplicated text has been removed.

comment	1757	comment by: <i>Atle Vivas</i>
	Supported	
response	Noted	
	EASA would like to thank you for your support regarding the proposed changes.	

AMC1 ADR.OPS.C.015(d);(f) Visual aids and electrical systems

p. 183-184

comment	878	comment by: <i>CAA Norway</i>
	AMC1 ADR.OPS.C.015(d);(f) Visual aids and electrical systems	
	COMMENT: Supported	
response	Noted	
	EASA would like to thank you for your support regarding the proposed changes.	

comment	1192	comment by: <i>SAS</i>
	Supported	
response	Noted	
	EASA would like to thank you for your support regarding the proposed changes.	

comment	1350	comment by: <i>Swedish Transport Agency</i>
	Supported.	
response	Noted	
	EASA would like to thank you for your support regarding the proposed changes.	

comment	1758	comment by: <i>Atle Vivas</i>
	Supported	
response	Noted	
	EASA would like to thank you for your support regarding the proposed changes.	

GM1 ADR.OPS.C.015(d);(f) Visual aids and electrical systems

p. 184



comment	385	comment by: <i>Federal Office of Civil Aviation (FOCA), Switzerland</i>
	<i>Comment FOCA on GM4 ADR.OPS.C.010(b)(2) & GM1 ADR.OPS.C.015(d): Both GMs contain exactly the same text and figure.</i>	
response	Accepted The accidentally duplicated text has been removed.	
comment	879	comment by: <i>CAA Norway</i>
	GM1 ADR.OPS.C.015(d);(f) Visual aids and electrical systems COMMENT: Supported	
response	Noted EASA would like to thank you for your support regarding the proposed changes.	
comment	1193	comment by: <i>SAS</i>
	Supported	
response	Noted EASA would like to thank you for your support regarding the proposed changes.	
comment	1759	comment by: <i>Atle Vivas</i>
	Supported	
response	Noted EASA would like to thank you for your support regarding the proposed changes.	

AMC & GM to the rules of the air

p. 184

comment	1194	comment by: <i>SAS</i>
	Supported	
response	Noted EASA would like to thank you for your support regarding the proposed changes.	
comment	1351	comment by: <i>Swedish Transport Agency</i>
	SERA.3215 Lights to be displayed by aircraft Item (b)	



	<p>COMMENT and RATIONALE: There is a definitive need for an alternate means to identify aircraft being towed in case the aircraft lights cannot be displayed during towing.</p> <p>For large aircraft, displaying aircraft lights may require electrical power from either the APU or an external source.</p> <p>If the APU is used, that would normally require a qualified person in the cockpit, and an amount of fuel is also used. As an example, at Oslo Airport Gardermoen, more than 10.000 towing operations is conducted pr year, each consuming an average of 40 l fuel. This equates to more than 400.000 l of fuel pr year.</p> <p>For both environmental and staffing reasons, this should clearly be avoided. Trials with GPUs mounted on the towing vehicles have showed that it is difficult for these units to provide electrical power which is accepted by the aircraft.</p> <p>Assuming that the reason for the requirement is to make the aircraft clearly visible to other operators on the movement area, and other who need to see it, for example ATS, it should be possible to achive the same, or better results by floodlighting the aircraft.</p> <p>This could be done by having the necessary lights mounted on the tow truck. It could be possible to have one side lighted red and the other green, if this is deemed necessary.</p> <p>The tow truck is, of course, assumed to be lighted and marked according to ADR.OPS.B.080.</p> <p>A key question is if this would require an AMC to SERA, or if it is sufficient to have an AMC to ADR.OPS.B.080 (c) or an expanded GM1 to ADR.OPS.B.028 LIGHTS TO BE USED DURING TOWING.</p> <p>Reference our comments to AMC/GMs to ADR.OPS.B.028</p>
response	<p>Noted</p> <p>The lights to be displayed by aircraft is an issue already regulated in SERA.3215 to which the proposed rules refer.</p> <p>EASA recognises the need to address this issue in a manner that takes into account employed practices and current technological evolutions, as well as the provisions of ICAO Annex 2, while ensuring the required level of standardisation and safety. However, because further assessment is required, EASA will address this issue in the context of the AWO task.</p>

comment	1760	comment by: <i>Atle Vivas</i>
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response	Noted	
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GM1 SERA.2005 Compliance with the rules of the air	p. 184-185
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comment	880	comment by: <i>CAA Norway</i>
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	GM1 SERA.2005 Compliance with the rules of the air COMMENT: Supported
response	Noted EASA would like to thank you for your support regarding the proposed changes.
comment	1195 comment by: SAS Supported
response	Noted EASA would like to thank you for your support regarding the proposed changes.
comment	1770 comment by: Atle Vivas Supported
response	Noted EASA would like to thank you for your support regarding the proposed changes.

AMC1 SERA.14001 General

p. 185-187

comment	191 comment by: <i>Aerodrome safety regulation departement</i> <p>1) In AMC1 ADR.OPS.B.037(c), page 154, it is specified that the aerodrome operator should re-assess the runway surface condition in certain circumstances based on runway braking action reported by pilots via special air reports. However, Special air report template is currently annexed to SERA regulation in Appendix 5 but isn't proposed to be updated in accordance with ICAO provisions and concept .</p> <p><u>Proposed resolution:</u> Add runway braking action in the template of special air report annexed to SERA regulation, as stated in amendment 7-B of doc 4444 (see Appendix I of PANS-ATM).</p> <p>2) To be able to be compliant with AMC1 ADR.OPS.B.037(c), page 156, the report of the special AIREP has to be sent to the aerodrome operator. However, currently, there is no provision in regulation (EU) n° 2017/373 stating that the ATS should transmit a special air report to the aerodrome operator.</p> <p><u>Proposed resolution:</u> as stated in 4.12.7 of doc.4444's amendment 7-B, a provision should be added in IR ATM-ANS.</p> <p>« 4.12.7 Forwarding of braking action information When receiving special air-reports by voice communications concerning braking action encountered that is not as good as that reported, air traffic service units shall forward them without delay to the appropriate aerodrome operator.”</p>
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3) AMC1 SERA.14001 General (RMT.0704), page 186: as described in AMC1 ADR.OPS.B.037(a), the descriptors "specially prepared" and "slippery wet" are some of the possible runway surface descriptors to be used in RCAM. These two descriptors may be transmitted to pilots by ATC, but they do not appear in the proposed amended phraseology of AMC.14001. Therefore, these descriptors should be mentioned in point 1.1.11 a) of AMC1 SERA.14001.

Proposed resolution: The table could be modified as below:

1.1.11	<p>AERODROME INFORMATION</p> <p><i>Note. — This information is provided for runway thirds or the full runway, as applicable.</i></p>	<p>a) <i>[(location)] RUNWAY SURFACE CONDITION RUNWAY (number) (condition) [(location) RUNWAY (number) SURFACE CONDITION [CODE (three digit number)]; followed as necessary by:</i></p> <ol style="list-style-type: none"> 1. ISSUED AT <i>(date and time UTC)</i>; 2. DRY, or WET ICE, or WATER ON TOP OF COMPACTED SNOW, or DRY SNOW, or DRY SNOW ON TOP OF ICE, or WET SNOW ON TOP OF ICE, or ICE, or SLUSH, or STANDING WATER, or COMPACTED SNOW, or WET SNOW, or DRY SNOW ON TOP OF COMPACTED SNOW, or WET SNOW ON TOP OF COMPACTED SNOW, or WET, or SLIPPERY WET, or SPECIALLY PREPARED, or FROST; 3. DEPTH <i>((depth of deposit) MILLIMETRES or NOT REPORTED)</i>; 4. COVERAGE <i>((number) PER CENT or NOT REPORTED)</i>; 5. ESTIMATED SURFACE FRICTION (GOOD, or GOOD TO MEDIUM, or MEDIUM, or MEDIUM TO POOR, or POOR, or LESS THAN POOR); 6. AVAILABLE WIDTH <i>(number) METRES</i>; 7. LENGTH REDUCED TO <i>(number) METRES</i>; 8. DRIFTING SNOW; 9. LOOSE SAND; 10. CHEMICALLY TREATED; 11. SNOWBANK <i>(number) METRES [LEFT, or RIGHT or LEFT AND RIGHT] [OF or FROM] CENTRE LINE</i>; 12. TAXIWAY <i>(identification of taxiway) SNOWBANK (number) METRES [LEFT, or RIGHT or LEFT AND RIGHT] [OF or FROM] CENTRE LINE</i>; 13. ADJACENT SNOWBANKS; 14. TAXIWAY <i>(identification of taxiway) POOR</i>; 15. APRON <i>(identification of apron) POOR</i>; 16. <i>Plain language remarks</i>
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4) **AMC1 SERA.14001 (page 186), page 186, 1.1.11 a) 5)**: as specified in ADR.OPS.A.065, point d), friction measurements shall not be reported by the



response	<p>aerodrome operator, in particular to the ATS unit, in accordance with recommendation 2.9.8 of ICAO Annex 14 Amendment 13-B, because the friction values cannot be used by flight crews to determine landing performance requirements. Nevertheless, Point a) 5) of SERA.14001 states a specific phraseology applicable to ATS for disseminating Estimated Surface friction Friction to pilots. In addition, ATS shouldn't be responsible for interpreting the RWYCC through RCA Matrix and communicate the estimated braking action known as GOOD, MEDIUM, POOR.</p> <p>Proposed resolution: remove estimated surface friction from the information addressing runway surface condition to be disseminated in phraseology.</p> <p>Accepted</p>
comment	<p>354 comment by: Avinor AS</p> <p>Avinor support the comment issued by CAA Norway</p>
response	<p>Noted</p>
comment	<p>882 comment by: CAA Norway</p> <p>AMC1 SERA.14001 General</p> <p>1.1.11 ITEM (a)</p> <p>COMMENT : Include the words SPECIALLY PREPARED WINTER RUNWAY, in order for the text to read:</p> <p><i>[(location) RUNWAY (number) SURFACE CONDITION [CODE (three digit number)];</i></p> <p><i>followed as necessary by:</i></p> <p>1. ISSUED AT (<i>date and time UTC</i>);</p> <p>2. DRY, or WET ICE, or WATER ON TOP OF COMPACTED SNOW, or DRY SNOW, or DRY SNOW ON TOP OF ICE, or WET SNOW ON TOP OF ICE, or ICE, or SLUSH, or STANDING WATER, or COMPACTED SNOW, or WET SNOW, or DRY SNOW ON TOP OF COMPACTED SNOW, or WET SNOW ON TOP OF COMPACTED SNOW, or WET, or FROST, or SPECIALLY PREPARED WINTER RUNWAY;</p> <p>RATIONALE: SPECIALLY PREPARED WINTER RUNWAY is a defined Runway Condition Descriptor and as such is vital information for pilots' performance calculations</p>
response	<p>Accepted</p>
comment	<p>1196 comment by: SAS</p>



response	<p>Supported</p> <hr/> <p>Noted</p> <p>EASA would like to thank you for your support regarding the proposed changes.</p>
comment	<p>1237 comment by: <i>ACI Europe</i></p> <p>Points 3 (DEPTH) and 4 (COVERAGE) do not correspond to the sequence of items in the SNOWTAM format. Item E of the SNOWTAM format refers to the percentage of COVERAGE and item F of the SNOWTAM format refers to the DEPTH of the contaminant. Furthermore the contamination type (point 2) corresponds to item G of the SNOWTAM format and item 5 (ESTIMATED SURFACE FRICTION) is not part of the SNOWTAM format at all. When the aerodrome operator issues a SNOWTAM or RCR message, who determines the estimated surface friction and what is this based upon? The GRF does not account for the issuance of estimated surface friction by the aerodrome operator.</p> <p>General suggestion is to align the numbers 1 to 16 of point 1.1.11 of AMC1 SERA.14001 so that they are (more) consistent with items B to T of the SNOWTAM format and to delete point 5 because this terminology is not consistent with the GRF or refrain from the term ‘estimated surface friction’ and instead use ‘pilot reported braking action’.</p>
response	<p>Noted</p> <p>The term ‘estimated surface friction’ has been deleted.</p>
comment	<p>1352 comment by: <i>Swedish Transport Agency</i></p> <p>1.1.11 ITEM (a)</p> <p>COMMENT : Include the words SPECIALLY PREPARED WINTER RUNWAY, in order for the text to read:</p> <p><i>[(location) RUNWAY (number) SURFACE CONDITION [CODE (three digit number)];</i></p> <p><i>followed as necessary by:</i></p> <p>1. ISSUED AT <i>(date and time UTC)</i>; 2. DRY, or WET ICE, or WATER ON TOP OF COMPACTED SNOW, or DRY SNOW, or DRY SNOW ON TOP OF ICE, or WET SNOW ON TOP OF ICE, or ICE, or SLUSH, or STANDING WATER, or COMPACTED SNOW, or WET SNOW, or DRY SNOW ON TOP OF COMPACTED SNOW, or WET SNOW ON TOP OF COMPACTED SNOW, or WET, or FROST, or SPECIALLY PREPARED WINTER RUNWAY;</p> <p>RATIONALE: SPECIALLY PREPARED WINTER RUNWAY is a defined Runway Condition Descriptor and as such is vital information for pilots’ performance calculations</p>
response	<p>Accepted</p>



comment	1602	comment by: <i>Copenhagen Airports A/S</i>
	<p>Subject: Terminology a)5).</p> <p>Proposal: Correct the terms up against used definitions/terminology. Delete a)5).</p> <p>Justification: a)5) Use of 'estimated surface friction' is confusing. Aerodrome operator uses other terminology. Aerodrome information begins with a) runway location and surface condition code. Seems unnecessary to have estimated surface friction.</p>	
response	Accepted	
comment	1610	comment by: <i>Copenhagen Airports A/S</i>
	<p>Subject: Runway status</p> <p>Proposal: Add the runway surface description 'Specially prepared winter runway' to aerodrome information.</p> <p>Justification: Should be part of terminology of ATS and ATIS, where applicable.</p>	
response	Accepted	
comment	1646	comment by: <i>Copenhagen Airports A/S</i>
	<p>Subject: Aerodrome information 1.1.11 a)h)</p> <p>Proposal: Delete 'patches of dry snow', 'frozen slush' and 'ICE UNDERNEATH'. Align with definitions/types just as runway surface descriptors.</p> <p>Justification: Definitions are missing for 'patches of dry snow' and 'frozen slush'. Aerodrome operator can not report the descriptors.</p>	
response	Noted	
comment	1773	comment by: <i>Atle Vivas</i>
	<p>1.1.11 ITEM (a)</p> <p>COMMENT : Include the words SPECIALLY PREPARED WINTER RUNWAY, in order for the text to read:</p> <p><i>[(location) RUNWAY (number) SURFACE CONDITION [CODE (three digit number)]];</i></p> <p><i>followed as necessary by:</i></p> <p>1. ISSUED AT (<i>date and time UTC</i>);</p> <p>2. DRY, or WET ICE, or WATER ON TOP OF COMPACTED SNOW, or DRY SNOW, or DRY SNOW ON TOP OF ICE, or WET SNOW ON TOP OF ICE, or ICE, or SLUSH, or STANDING WATER, or COMPACTED SNOW, or WET SNOW, or DRY SNOW ON TOP OF COMPACTED SNOW, or WET SNOW ON TOP OF COMPACTED SNOW, or WET, or FROST, or SPECIALLY PREPARED WINTER RUNWAY;</p>	

response	<p>RATIONALE: SPECIALLY PREPARED WINTER RUNWAY is a defined Runway Condition Descriptor and as such is vital information for pilots' performance calculations</p> <p>Accepted</p>
comment	<p>1774 comment by: <i>Atle Vivas</i></p> <p>SERA.3215 Lights to be displayed by aircraft Item (b)</p> <p>COMMENT and RATIONALE: There is a definitive need for an alternate means to identify aircraft being towed in case the aircraft lights cannot be displayed during towing.</p> <p>For large aircraft, displaying aircraft lights may require electrical power from either the APU or an external source.</p> <p>If the APU is used, that would normally require a qualified person in the cockpit, and an amount of fuel is also used. As an example, at Oslo Airport Gardermoen, more than 10.000 towing operations is conducted pr year, each consuming an average of 40 l fuel. This equates to more than 400.000 l of fuel pr year.</p> <p>For both environmental and staffing reasons, this should clearly be avoided. Trials with GPUs mounted on the towing vehicles have showed that it is difficult for these units to provide electrical power which is accepted by the aircraft.</p> <p>Assuming that the reason for the requirement is to make the aircraft clearly visible to other operators on the movement area, and other who need to see it, for example ATS, it should be possible to achieve the same, or better results by floodlighting the aircraft.</p> <p>This could be done by having the necessary lights mounted on the tow truck.</p> <p>It could be possible to have one side lighted red and the other green, if this is deemed necessary.</p> <p>The tow truck is, of course, assumed to be lighted and marked according to ADR.OPS.B.080.</p> <p>A key question is if this would require an AMC to SERA, or if it is sufficient to have an AMC to ADR.OPS.B.080 (c) or an expanded GM1 to ADR.OPS.B.028 LIGHTS TO BE USED DURING TOWING.</p> <p>Reference our comments to AMC/GMs to ADR.OPS.B.028</p>
response	<p>Noted</p> <p>The lights to be displayed by aircraft is an issue already regulated in SERA.3215 to which the proposed rules refer.</p> <p>EASA recognises the need to address this issue in a manner that takes into account employed practices and current technological evolutions, as well as the provisions of ICAO Annex 2, while ensuring the required level of standardisation and safety.</p>



However, because further assessment is required, EASA will address this issue in the context of the AWO task.

comment	1856	comment by: <i>Danish Transport, Construction and Housing Authority</i>
		Comment to 1.1.11.(a) and (h): Definitions needs to be consistent with 139/2014.
		Otherwise we support CAA Norway.
response		Noted

3.4. Draft performance standards for continuous friction measuring device CS ADR.EQU.CFME.XXX Continuous friction measuring equipment performance standards	p. 187-188
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comment	192	comment by: <i>Aerodrome safety regulation departement</i>
		<p>1/ « CFME » needs to be replaced by « CFMD » in the title of this CS.</p> <p>2/As drafted, this CS would apply to all CFMDs including those used for operational measurements only. However, this CS includes provisions such as (d), (e); (f); (g); (i); (j), which are inappropriate or inapplicable to the CFMDs used for operational measures. We believe that this CS should either be limited to CFMDs used only to achieve friction measurements in the objective of maintenance or that the provisions applicable to both should be distinguished from the provisions reserved to CFMD used for maintenance objective.</p> <p>3/ In addition :</p> <ul style="list-style-type: none"> o 3-1: In point (c) “LCF” should be replaced by “LFC” o 3-2 : We suggest to add a GM related to point (d) dealing with the evaluation of the measurement uncertainty, such as : “GM1 CS ADR.EQU.CFMD.XXX(d) In order to determine the uncertainty associated to a measured LFC, operators could evaluate the impact of each factor influencing the LFC value. For instance, the device technology, the measuring tire used, the driver ability, the trajectory, the runway characteristics, the implemented test method or the environmental conditions can be considered as influencing factors for the LFC measurement. For further information, operators can refer to the “Guide to the expression of uncertainty in measurement” (JCGM 100:2008)” o 3-3 : (g) : we suggest to delete the sentence “Regulation of the water flow rate should be within a tolerance of +/- 10%” from the CS and transfer it in a new GM, such as : “GM1 CS ADR.EQU.CFMD.XXX(g) : the water flow rate corresponding to the water depth of 1 mm in front of the measuring tire should be calibrated in order to be within a tolerance of +/- 10% of the targeted value.”



	<p>o 3-4 : (i) : the sentence is not clear enough. We would suggest a new wording, such as :</p> <p>“The device should provide a continuous trace of the friction values obtained for the entire length of the runway, minus :</p> <ul style="list-style-type: none"> - 200 m for the acceleration and 100 m for the deceleration at 65 km/h ; - 400 m for the acceleration and 200 m for the deceleration at 95 km/h.” <p>o 3-5 : (j) : The term “calibrated” should be deleted (it refers to the device, not to the measurement). In addition, we would replace “friction measurement” by “friction measuring device”.</p> <p>o</p> <p>o 3-6 : (k) (1) we would add “could”, such as “[...] malfunctions which <u>could</u> have an impact [...]”</p> <p>3-7 : (k) (2) we would advise to delete “and ensure the traceability to the International System of Units” (this sentence is a bit too restrictive for a CS, but it could be integrated into a GM).</p>
response	<p>Noted</p> <p>The comments will be considered when EASA develops performance standards for CFMD, in the future.</p>

comment

313

comment by: *Moventor*

My name is Mikko Kallio and I work as a CEO of company named Moventor. We are the manufacturer and product right holder of Skiddometer® friction measuring devices. Skiddometer has a long history in friction testing and has been notified by ICAO at earlier releases.

We have been going through the new EASA NPA and came across the performance standards for friction testers. We want to be sure we are compliant for providing friction testers in the future as well and therefore I have few questions and comment regarding this section.

Chapter 3.4.

- In general: This only gives instructions for wet measuring, how about dry measurements in winter?
- Is there coming any “approval” for friction devices in the future by ICAO/EASA?
- Is there coming any update on ICAO Airport service manual?

f) regarding the tires. In previous ICAO instructions there have been mentioning about smooth tire for wet testing and grooved tire for dry testing. We have been using ASTM E1551 standard smooth tire with wet measuring and Trelleborg T-520 grooved tire in winter. What’s the case with this new performance standard?



	<p>j) Do we need to provide some test results or is ICAO/EASA planning to organize some testing event? k) 2) What is meant by ...calibration method to be used for each measurement chain...? l) Should this be in more detail about how often calibration should be performed? Service and calibration of the unit is in our opinion the most important factor to get reliable results during the lifetime of the unit.</p> <p>If there is any possibility to participate on these discussions, I would be happy to be part of it. Or if there's anything I could you help you with, just let me know.</p> <p>Best regards,</p> <p><u>Mikko Kallio CEO</u> Moventor Oy Muovitie 16 FI-33470 Ylöjärvi, Finland +358 50 5749638 www.moventor.com Like us on Facebook</p>
response	<p>Noted</p> <p>The comments will be considered when EASA develops performance standards for CFMD, in the future.</p>

comment	<p>885 comment by: CAA Norway</p> <p>3.4. Draft performance standards for continuous friction measuring device</p> <p>CS ADR.EQU.CFME.XXX Continuous friction measuring equipment performance standards</p> <p>COMMENT: In the heading: ICAO uses the term <i>"continuous friction measuring device"</i> without any acronym. CFME should be changed with another coding and "equipment" should be changed to "device"</p> <p>RATIONALE: For consistency within the documents and to be ICAO compliant.</p> <p>COMMENT: (b) is very technical and not easily understood. Could it be rewritten? RATIONALE: If it is not easily understood it could be a source for confusion.</p>
response	<p>Noted</p> <p>The comments will be considered when EASA develops performance standards for CFMD, in the future.</p>

comment	<p>961 comment by: PRG Airport</p>
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response	<p>para (d) - For better clarity, we suggest to state who is responsible for setting the +δU. Producer of CFME or user of CFME?</p> <p>Noted</p> <p>The comments will be considered when EASA develops performance standards for CFMD, in the future.</p>
comment	<p>962 comment by: PRG Airport</p> <p>para (j) - It means new requirements for operating CFME, similar to the accredited testing laboratory. It can cause considerable increased costs. The question is if it will be effective when the friction value will be reported with appropriate degree of uncertainty. How will be calculate relation btw MPFL or MPL? From the mean value or from the lowest value of the band? It could be an essential problem for many ADR.</p>
response	<p>Noted</p> <p>The comments will be considered when EASA develops performance standards for CFMD, in the future.</p>
comment	<p>1197 comment by: SAS</p>
response	<p>Noted</p>
comment	<p>1353 comment by: Swedish Transport Agency</p> <p>Supported.</p>
response	<p>Noted</p> <p>EASA would like to thank you for your support regarding the proposed changes.</p>
comment	<p>1776 comment by: Atle Vivas</p> <p>3.4. Draft performance standards for continuous friction measuring device</p> <p>CS ADR.EQU.CFME.XXX Continuous friction measuring equipment performance standards</p> <p>COMMENT: In the heading: ICAO uses the term “continuous friction measuring device” without any acronym. CFME should be changed with another coding and “equipment” should be changed to “device”</p> <p>RATIONALE: For consistency within the documents and to be ICAO compliant.</p> <p>COMMENT: (b) is very technical and not easily understood. Could it be rewritten?</p> <p>RATIONALE: If it is not easily understood it could be a source for confusion.</p>



response

Noted

The comments will be considered when EASA develops performance standards for CFMD, in the future.

GM1 CS ADR.EQU.CFME.XXX Continuous friction measuring equipment performance standards

p. 189

comment

193

comment by: *Aerodrome safety regulation departement*

« CFME » needs to be replaced by « CFMD » in the title of these GM.

response

Noted

The comments will be considered when EASA develops performance standards for CFMD, in the future.

comment

886

comment by: *CAA Norway*

GM1 CS ADR.EQU.CFME.XXX(f) Continuous friction measuring equipment performance standards

COMMENT: In the heading:

ICAO uses the term “*continuous friction measuring device*” without any acronym.

CFME should be changed with another coding and “equipment” should be changed to “device”

RATIONALE: For consistency within the documents and to be ICAO compliant.

COMMENT: Change text to: Appropriate standards may be found from global or leading standardisation organisations.

RATIONALE: There should be no need to identify a few and leaving others out. This could lead to confusion and not clarity.

response

Noted

The comments will be considered when EASA develops performance standards for CFMD, in the future.

comment

888

comment by: *CAA Norway*

GM1 CS ADR.EQU.CFME.XXX(j) Continuous friction measuring equipment performance standards

COMMENT: In the heading:

ICAO uses the term “*continuous friction measuring device*” without any acronym.

CFME should be changed with another coding and “equipment” should be changed to “device”. Otherwise supported.

RATIONALE: For consistency within the documents and to be ICAO compliant.



response	Noted The comments will be considered when EASA develops performance standards for CFMD, in the future.
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comment	1198 Supported	comment by: SAS
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response	Noted EASA would like to thank you for your support regarding the proposed changes.
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comment	1777 GM1 CS ADR.EQU.CFME.XXX(f) Continuous friction measuring equipment performance standards COMMENT: In the heading: ICAO uses the term “ <i>continuous friction measuring device</i> ” without any acronym. CFME should be changed with another coding and “equipment” should be changed to “device” RATIONALE: For consistency within the documents and to be ICAO compliant. COMMENT: Change text to: Appropriate standards may be found from global or leading standardisation organisations. RATIONALE: There should be no need to identify a few and leaving others out. This could lead to confusion and not clarity.	comment by: Atle Vivas
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response	Noted The comments will be considered when EASA develops performance standards for CFMD, in the future.
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comment	1780 GM1 CS ADR.EQU.CFME.XXX(j) Continuous friction measuring equipment performance standards COMMENT: In the heading: ICAO uses the term “ <i>continuous friction measuring device</i> ” without any acronym. CFME should be changed with another coding and “equipment” should be changed to “device”. Otherwise supported. RATIONALE: For consistency within the documents and to be ICAO compliant.	comment by: Atle Vivas
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response	Noted The comments will be considered when EASA develops performance standards for CFMD, in the future.
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4. Impact assessment | 4.5. What are the impacts (RMT.0703)

p. 193-196

comment	475	comment by: <i>European Powered Flying Union</i>
	<p>4.5. What are the impacts 4.5.2 Social impact Option 1 p 194/207</p> <p>We disagree with this judgment.</p> <p>Rationale There will be many more than just "certain ground personnel not being able to continue their current duties"!</p>	
response	Noted	

comment	476	comment by: <i>European Powered Flying Union</i>
	<p>4.5. What are the impacts 4.5.3 Economic impact Option 1 p 194 and 195/207</p> <p>We disagree with your view.</p> <p>Rationale We think the required trainings will heavily add to the staff costs, the impact will not be a low one, particularly language training/testing/knowledge assessment will contribute to cost increases.</p>	
response	Noted	

4. Impact assessment | 4.6. What are the impacts (RMT.0704)

p. 196-202

comment	477	comment by: <i>European Powered Flying Union</i>
	<p>4.6 What are the impacts p 196 ff/207</p> <p>Thank you for the information provided!</p> <p>Remark The yellow markings as applied at some Norwegian airports are a highly appropriate measure of the country's CAA, it adapts regulations according to the daily reality and to the needs of the communities involved.</p>	
response	Noted	



4. Impact assessment | 4.7. Conclusion — comparison of optio

p. 203

comment

478

comment by: *European Powered Flying Union*

4.7 Conclusion
p 203/207

For RMT.0703

We do not fully agree with the Agency's proposals. Option 2, however, is the best choice.

For RMT.0704

We support Option 2.

Rationale

It covers to a high extent the requirements of the operations involved.

response

Noted



3. Attachments

 [picture1_A35 inputs.png](#)

Attachment #1 to comment [#437](#)

 [picture2_A32 inputs.png](#)

Attachment #2 to comment [#437](#)

 [picture3_RCAM inputs.png](#)

Attachment #3 to comment [#437](#)

 [picture1_A35 inputs.png](#)

Attachment #4 to comment [#535](#)

 [picture2_A32 inputs.png](#)

Attachment #5 to comment [#535](#)

 [picture3_RCAM inputs.png](#)

Attachment #6 to comment [#535](#)

 [gatwick_chaos.png](#)

Attachment #7 to comment [#208](#)

 [Picture4_RCAM_WET.png](#)

Attachment #8 to comment [#452](#)

 [Picture4_RCAM_WET.png](#)

Attachment #9 to comment [#550](#)

 [Picture5_RCAMcontaminants_LFC.png](#)

Attachment #10 to comment [#454](#)

 [Picture5 RCAMcontaminants_LFC.png](#)
Attachment #11 to comment [#552](#)

 [NPA 2018-14 Finavia Attachment B.png](#)
Attachment #12 to comment [#1223](#)

 [NPA 2018-14 Finavia Attachment A.png](#)
Attachment #13 to comment [#1223](#)

 [NPA 2018-14 Finavia Diag 2.png](#)
Attachment #14 to comment [#1223](#)

 [NPA 2018-14 Finavia Diag 3.png](#)
Attachment #15 to comment [#1223](#)

 [Picture4 RCAM_WET.png](#)
Attachment #16 to comment [#455](#)

 [Picture7 ESF_LFC.png](#)
Attachment #17 to comment [#455](#)

 [Picture6 RCAMcontaminants Polarization.png](#)
Attachment #18 to comment [#455](#)

 [Picture5 RCAMcontaminants_LFC.png](#)
Attachment #19 to comment [#455](#)

 [Picture4 RCAM_WET.png](#)
Attachment #20 to comment [#553](#)

 [Picture7 ESF LFC .png](#)

Attachment #21 to comment [#553](#)

 [Picture6 RCAMcontaminants Polarization .png](#)

Attachment #22 to comment [#553](#)

 [Picture5 RCAMcontaminants LFC .png](#)

Attachment #23 to comment [#553](#)

 [ADD NEW GMX ADR.OPS.C.010 Pavements, other ground surfaces, and drainage..pdf](#)

Attachment #24 to comment [#860](#)

 [Table A2-1.JPG](#)

Attachment #25 to comment [#1837](#)

 [PROPOSAL ADD NEW AMC4 ADR.OPS.C.010b4.pdf](#)

Attachment #26 to comment [#910](#)

 [Table to UN regulation - vehicle vs aircraft.pdf](#)

Attachment #27 to comment [#1543](#)
