

European Aviation Safety Agency

NOTICE OF PROPOSED AMENDMENT NPA 2011-20 (A)

RMT.0136 (ADR.001 (a)) & RMT.0137 (ADR.001 (b))

RMT.0140 (ADR.002 (a)) & RMT.0141 (ADR.002 (b))

RMT.0144 (ADR.003 (a)) & RMT.0145 (ADR.003 (b))

Authority, Organisation and Operations Requirements for Aerodromes

NPA 2011-20 (A) — Explanatory Note

EXECUTIVE SUMMARY

Purpose

The purpose of this Notice of Proposed Amendment (NPA) is to introduce rules applicable to aerodromes. Regulation (EC) No 216/2008 as amended by Regulation (EC) No 1108/2009 (hereafter referred to as the 'Basic Regulation') included aerodromes and ATM/ANS into the European aviation safety regulatory system. The Basic Regulation mandated EASA with the task to develop Implementing Rules (IRs) applicable to aerodromes within a defined timeframe for the field of aerodrome safety.

Scope

As defined by the Basic Regulation the rules, apply to aerodromes which are open to 'public use', which serve commercial air transport and where operations using instrument approach or departure procedures are provided and:

- which have a paved runway of 800 metres or above; or
- exclusively serve helicopters¹.

Discussion

To enable the task to be completed, EASA established three working groups, which included representatives of National Aviation Authorities, aerodrome operators associations and other aviation industry associations (including those that represented the pilot and Air Navigation Services community). The working groups were created to develop the safety rules containing the detailed requirements with which related oversight authorities, aerodrome operator organisations, aerodrome design and operations have to comply with. The working groups were given the task of developing draft IRs and were further directed to develop Acceptable Means of Compliance (AMCs), Certification Specifications (CSs) and, where appropriate, Guidance Material (GM).

The working groups developed the rules within certain parameters, primarily that they must be closely based on the Standards and Recommended Practices (SARPs) contained in ICAO Annex 14, Volume 1, Aerodromes. With the draft rules proposed by this NPA, EASA followed closely the advice established by the aforementioned working groups.

As a result of this task, the Aerodrome rules are structured into three parts: 'Part Authority Requirements (AR)', 'Part Organisation Requirements (OR)' and 'Part Operational Requirements (OPS)'.

- **Part-AR** contains the requirements to be fulfilled by the competent authority. The part contains three sections, covering General Requirements, Management and Oversight, Certification and Enforcement.
- **Part-OR** contains the requirements to be fulfilled by the aerodrome operator. The part contains five sections covering General Requirements, Certification Declaration, Operator Responsibilities, Management and Manuals.
- **Part-OPS** contains the requirements to be fulfilled by the aerodrome operator. The part contains three sections, covering Aerodrome Data, Aerodrome Operational Services, Equipment and Installations and Aerodrome Maintenance.

In addition to and in support of the aforementioned draft rules, EASA has produced a 'Book 1' of CSs for aerodrome design that will be used to construct the certification basis

Rules applicable to heliports are not covered in this NPA.

as part of the certification process. A further 'Book 2' of GM to further describe the intent of the CSs has also been produced. Those books are forming also part of this NPA.

Throughout the drafting process, EASA has been particularly mindful of the flexibility needed to implement the rules and, as directed by the Basic Regulation, has devised means to allow Member States and aerodrome operators to propose alternative compliance means.

Additionally, EASA has recognised and developed measures that allow Member States to seamlessly convert their existing aerodrome certificates/licences, which are based on national aviation rules, into an aerodrome certificate issued in accordance with the Basic Regulation and its IRs. This process includes the option of accepting deviations from the European aerodrome design certification specifications when these have been in existence before the entry into force of the European CSs. The introduction of the Deviations Acceptance & Action Document (DAAD), unique to aerodromes, will enable this process to be applied and managed.

Impact

Member States, as signatories to the Chicago Convention of 1944, are obliged to adopt the SARPs contained within the Annexes to that Convention. Member States, as signatories to the Chicago Convention, are obliged to certify and oversee their aerodromes based on national legislation implementing the ICAO requirements. Within the EASA region, Member States have transferred to the European Union the power to legislate in the area of safety of aerodromes.

Therefore, as from the entry into force of the IRs, Member States will continue to certify and oversee their aerodromes, but in accordance with the Basic Regulation, its IRs and CSs. The European rules will introduce standard processes for certification and oversight, managing and operating aerodromes based on the spirit of flexibility and of continuity of certificates as explained above.

The level of impact of these changes will vary depending on how Member States have chosen to adopt the ICAO SARPs so far, and how they will make future use of their discretion in the application of the individual aerodrome certification process. Case studies have taken place with selected Member States in order to assess and to visualise the potential impact of the European rules. Results of the case studies are included in the Regulatory Impact Assessment (RIA) attached to this NPA. A summary of the RIA is included in the introduction of the NPA.

Conclusion

EASA has been conscious throughout the development and drafting of the rules for aerodromes that Member States are able to easily transit to the future rules and that obligations placed on the Member States and on the industry are not greater than those currently required by the ICAO SARPs. Equally, EASA has endeavoured to ensure the rules are easily understood and applied. It is anticipated that the adoption of the rules will lead to improved safety without creating undue burden or other adverse effect such as discontinuation of established and well working mechanisms.

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A. Explanatory Note

I. Introduction

1. Amended Regulation (EC) No 216/2008 (hereafter referred to as the 'Basic Regulation'), extended the responsibilities of the European Aviation Safety Agency (hereafter referred to as the 'Agency') to the areas of ATM/ANS and aerodromes. This new responsibility mandated the Agency to prepare draft safety rules for aerodromes as well as common rules for certification and oversight by the National Aviation Authorities (NAAs) in support of the European Commission. Proposed Implementing Rules contain the conditions for the issuance of certificates, the obligations and privileges of certificate holders and sanctions in case of non-compliance. Furthermore, the Agency would provide rules and guidelines regarding aerodrome Safety Management Systems (SMSs).

II. Process and scope

- 2. The Agency² developed this Notice of Proposed Amendment (NPA) in line with the Rulemaking Procedure³.
- 3. This rulemaking activity is included in the Agency's Rulemaking Programme for 2012 in line with the Rulemaking Procedure. It implements the rulemaking tasks RMT.0136 (ADR.001 (a)) & RMT.0137 (ADR.001 (b)) 'Requirements for aerodrome operator organisations and competent authorities'; RMT.0140 (ADR.002 (a)) & RMT.0141 (ADR.002 (b)) 'Requirements for aerodrome operations'; and RMT.0144 (ADR.003 (a)) & RMT.0145 (ADR.003 (b)) 'Requirements for aerodrome design'.
 - The scope of this rulemaking activity is defined in the Terms of Reference (ToR) ADR.001, ADR.002 and ADR.003 as published on the Agency's website.
- 4. To support this, one of the standard working methods employed by the Agency involves the formation of rulemaking groups, composed of experts who are selected on the basis of their professional expertise, from among the National Aviation Authorities, industry and professions who assist the Agency to draft rules for a defined area.
- 5. As required by the ToRs, the Agency established rulemaking groups to support it in drafting the NPA in order to establish the new regulatory system for aerodromes by 2013, and it identified three initial tasks that needed to be achieved:
 - ADR.001 Requirements for aerodrome operator organisations and competent authorities,
 - ADR.002 Requirements for aerodrome operations,
 - ADR.003 Requirements for aerodrome design.

The Agency is directly involved in the rulemaking process. It assists the Commission in its executive tasks by preparing draft regulations for the implementation of the Basic Regulation, and amendments thereof, which are adopted as 'Opinions' [Article 19(1)]. It also adopts Certification Specifications, Acceptable Means of Compliance and Guidance Material to be used in the certification process and to facilitate the implementation of the Basic Regulation and its Implementing Rules [Articles 18(c) and 19(2)].

The Agency is bound to follow a structured rulemaking process as required by Article 52(1) of the Basic Regulation. Such process has been adopted by the Agency's Management Board and is referred to as the 'Rulemaking Procedure'. See Management Board Decision concerning the procedure to be applied by the Agency for the issuing of opinions, certification specifications and guidance material (Rulemaking Procedure), EASA MB 08 2007, 13.6.2007.

- Note 1: Requirements for the certification of aerodrome equipment, as well as for the oversight of designers and producers of safety-critical aerodrome equipment will follow at a later stage jointly with the work to be done for specific ATM systems and constituents.
- Note 2: The Agency did not undertake the development of safety rules for apron management services but later on will initiate a joint group with ATM⁴.
- 6. The text of this NPA has been developed by the Agency, based on the input of the aforementioned Rulemaking Groups ADR.001, ADR.002 and ADR.003. It is submitted for consultation of all interested parties in accordance with Article 52 of the Basic Regulation and Articles 5(3) and 6 of the Rulemaking Procedure.
- 7. There were no pre-existing EU rules for the safety of aerodromes. Therefore, as per Article 8a.6(a) of the Basic Regulation, the proposed future common aerodrome design and operations rules were developed primarily based on Annex 14, Volume 1, Aerodromes, to the Chicago Convention.
- 8. The rulemaking working groups were initially given the task of developing draft 'hard law' Implementing Rules as required by the Basic Regulation for adoption by the Commission before the 31st of December 2013. However, the Agency further took the early decision to deliver, where possible, the accompanying 'soft law' Acceptable Means of Compliance (AMC), Certification Specifications (CS) and Guidance Material (GM) to accompany the aforementioned Implementing Rules to help the NAAs, aerodrome operator organisations and other interested parties to implement and understand the rationale and therefore the impact the new Implementing Rules will place on them.
- 9. This NPA therefore includes a proposal for Implementing Rules (IRs), Acceptable Means of Compliance (AMC) and Certification Specifications (CSs) applicable to aerodromes which are open to 'public use', which serve commercial air transport and where operations using instrument approach or departure procedures are provided and:
 - which have a paved runway of 800 metres or above; or
 - exclusively serve helicopters.
- 10. Implementing measures for heliports (Annex 14, Volume II, Heliports) both in terms of stand-alone Instrument Flight Rule (IFR) heliports as well as Visual Flight Rules (VFRs) heliports co-located at certified aerodromes will be undertaken at a later stage. Until these Implementing Rules are in place, the respective national regulations will be applicable as far as they do not conflict with applicable EU rules.

III. Overview of the rules proposed in this NPA

Comparison with ICAO

- 11. ICAO Annex 14, Volume 1, Aerodromes (Fifth edition, July 2009), has been used as the baseline, but not exclusively, for all future European rules. Consideration of other ICAO annexes containing material appropriate for aerodrome application and responsibility has been taken into account. In order to conduct effective, efficient, and consistent transposition of the ICAO regulatory material into European rules (EU law), it is essential that there is a clear understanding of the ICAO and EASA rulemaking structures as well as the synergies and variances between them.
- 12. In order to understand the process the working groups employed while developing the European rules, it is important to appreciate that the terms 'transpose(d)' and

⁴ However, some procedural rules related to those services are included in the proposed rules under organisation and authority requirements; however, due to the lack of substantial requirements for the provision of these services, certain articles will come into effect when the remaining rules have been adopted in the future (see Article 11 of the draft Regulation).

'transposition' are intended to mean consideration of the ICAO provisions, and where considered essential to safety, subsequent adaptation into the European rule structure. These terms are not intended to mean only 'copy-paste' from the ICAO provisions into the European regulations.

- 13. The three working groups used different approaches to the development of the European rules:
 - ADR.003: For producing Certification Specifications (CSs), the working group used Annex 14⁵ as the primary reference and transposed a high percentage to the SARPs regarding aerodrome design as CSs.
 - ADR.002: Given the task of developing operational rules (IRs & AMCs), the working group typically used the case-by-case approach but the task was complicated by the application of the rules to the aerodrome operator, whereas the SARPs are directed at the State, and had to transpose material from a number of sources. Therefore, their material was a blend of the SARPs, contained in a number of annexes, designed to enable the reader to easily follow the application of the new rules and meet the intent of the original SARPs.
 - ADR.001: This working group had the challenging task of developing novel authority and organisation rules. Given the absence of ICAO SARPs in most of these areas, the working group partially relied on material already produced by the Agency for other domains (OPS & FCL), and developed material based on best practice within the Member States and partner countries.
- 14. A common element within all working groups was the requirement to provide evidence of conformity of the European rules against the ICAO SARPs. A list of this conformity, indicating any differences and the justification, is included in this NPA.
- 15. The ICAO regulatory material has been approved in the form of Standards and Recommended Practices (SARPs).
 - 'Standards' are those specifications where uniform application is necessary for the safety or regularity of international air navigation and to which contracting States will conform in accordance with the ICAO Convention. A 'standard' contains a statement specifying an obligation through the use of the verb 'shall'.
 - 'Recommended practices' are specifications for which uniform application is desirable in the interest of safety, regularity or efficiency of international air navigation, and to which contracting States will endeavour to conform in accordance with the ICAO Convention. 'Recommended practices' use the verb 'should'.
- 16. EASA rulemaking on the other hand is promulgated as Implementing Rules (IRs), Acceptable Means of Compliance (AMCs), or Certification Specifications (CSs).
 - IRs are binding in their entirety and are used to specify high and uniform level of safety and uniform conformity and compliance without variation.
 - AMCs are non-essential and non-binding. AMCs serve as a means by which the requirements contained in the IRs can be met, hereby offering the benefit of presumption of compliance. However, applicants may decide to show compliance with the requirements using other means and may propose an alternative means of compliance, based, or not, on those issued by the Agency. These alternative means of compliance (AltMoC) must only be used when it is demonstrated that the safety objective set out in the Implementing Rules is met. When the competent authority uses an alternative means of compliance, it must notify the Agency.

ICAO Annex 14, Volume I, Aerodrome design and operations, fifth edition, July 2009, including Amendment 10.

- CSs are non-binding technical standards adopted by the Agency to meet the Essential Requirements (ERs) of Annex Va to the Basic Regulation. CSs are used to establish the certification basis (CB) as described below. An aerodrome operator may propose an Equivalent Level of Safety (ELoS) for a given CS that demonstrates how it meets the intent of that CS and hereby complies with the ER. Additionally, the aerodrome operator may propose an alternative when they feel the CS is inadequate or inappropriate for use at their aerodrome. This may result in the competent authority introducing a Special Condition (SC). SCs are special detailed technical specifications determined by the NAA for an aerodrome if the Certification Specifications established by the Agency are not adequate or are inappropriate to ensure conformity of the aerodrome with the ERs of Annex Va to the Basic Regulation. Such inadequacy or inappropriateness may be due to:
 - the design features of the aerodrome; or
 - where experience in the operation of that or other aerodromes, having similar design features, has shown that safety may be compromised.

SCs, like CSs, become binding on an individual basis to the applicant as part of an agreed CB.

- 17. It can be seen that it is likely to be a synergy between what is an ICAO Standard and what is required for an IR, as both should be used to ensure uniform conformity without variation. Therefore, it is expected that Standards would normally be transposed as IR material; this would also result in the complementary ICAO/IR use of the verb 'shall'.
- 18. In considering transposition of Recommended Practices (RPs), the rulemaking working groups have found it necessary to use a case-by-case approach to determine whether the RP contains a safety objective, in which case an AMC or CS would be the appropriate transposition. This would also result in the complementary use of the verb 'should'. Additionally, some Recommended Practices may be more appropriate as GM, particularly for those provisions for which compliance cannot be measured.
- 19. In reflection of the above, the following overall lines were established:
 - the majority of the SARPs related to design were transposed into a CS;
 - everything else that implies an obligation for the aerodrome operator was transposed as an IR or AMC; and
 - a review of State Letters was performed to access the possible need to include the proposed change to the annexes in the rules.
- 20. Some ICAO SARPs are composed of a standard, supplemented by a recommendation detailing a stricter, additional requirement. The structure of European rules, however, does not come with a tool exactly mirroring the character of an ICAO recommendation. Therefore, the most appropriate solution to those cases was to transpose both the standard and the recommendation into one CS, and to adjust the wording in order to reflect the spirit of the recommendation accordingly. This goes especially in the case of the technical requirements for the Runway End Safety Area (RESA), where the proposed CS reflects fully identically the set of requirements emerging from the ICAO SARPs without implying any change or additional element.

Certification process including the establishment of the certification basis (CB)

21. The single most discussed subject during the development of the new Agency rules has been the establishment of the aerodrome certification basis and how it fits in with the certification process. Therefore, it is worth examining how an application for an aerodrome certificate/licence is processed today under national rules against the way it will be processed under the Agency rules. This exercise will highlight the slight differences, and many similarities, that exist between them.

- 22. Currently, following ICAO Standards, an application for an aerodrome certificate/licence is made in writing to the appropriate NAA with a map showing the aerodrome location/boundaries and a copy of the aerodrome manual.
- 23. Before a certificate/licence is granted, the NAA will require to be satisfied that the physical conditions on the manoeuvring area, apron and in the surroundings of the aerodrome are acceptable, and that the scale of equipment and facilities provided are adequate for the flying activities which are expected to take place. The criteria which will be applied in making this assessment are described in the NAA transposition of ICAO Annex 14, Volume 1, Aerodromes. The NAA will also require to be satisfied that the applicant has an effective Safety Management System and, in those activities which are related to the safe operation of the aerodrome, provides staff who are competent and, where necessary, suitably qualified.
- 24. An element of the process described above will require the NAA to visit the aerodrome to determine the extent to which the aerodrome, its facilities, equipment and organisation meet the certification/licensing requirements.
- 25. The issued certificate/licence will normally remain in force until suspended or revoked, but may be issued for a limited period depending on the procedures employed by the NAA.
- 26. In the future, the issuance of an aerodrome certificate may be a two-stage process. The first stage is to establish the certification basis (CB) using:
 - the applicable Certification Specifications (CSs);
 - any Equivalent Level of Safety (ELoS) proposed by the applicant; and
 - any Special Conditions (SCs) determined by the competent authority.

Once the first stage is established, the second stage involves assessing the aerodrome operator's ability to meet the requirements of the Basic Regulation [the Essential Requirements (ERs) and Implementing Rules (IRs)]. This is achieved by using a combination of discussion, aerodrome inspections and validation of the aerodrome manual.

The competent authority will issue the certificate(s) when:

- the applicant has shown that the aerodrome complies with the agreed CB;
- the aerodrome has no features or characteristics making it unsafe for operation;
- it has approved the aerodrome manual submitted by the operator; and
- the aerodrome operator has demonstrated, to the satisfaction of the competent authority, compliance with the applicable requirements of the ERs and IRs and any other applicable requirements that have been notified by the competent authority.
- 27. The certificate will be issued for an unlimited duration. The privileges and the scope of the activities that the aerodrome operator is approved to conduct will be specified in the terms of approval attached to the certificate.
- 28. Where the owner and operator of the aerodrome are the same entity, this process may be achieved under a single stage involving an iterative process between the aerodrome operator and the NAA throughout, leading to the issuance of the certificate.
- 29. According to the Basic Regulation, the European Parliament and the Council had anticipated that the process described above would be unsuitable for the assessment of existing certified aerodromes. They recognised that existing aerodromes have operated safely under their national rules based on ICAO Annex 14, in some cases, for a considerable number of years, and that appropriate measures will be needed to ensure adequate continuity for those aerodromes. Therefore, to reduce the impact the new EU rules may have on existing aerodromes, as directed by the European Commission, the Agency has developed conditions and measures described in the following section.

Conversion and acceptance measures

- 30. Article 8a(5)(g) of the Basic Regulation mandated the Agency to propose the conditions for the **acceptance** and for the **conversion** of aerodrome certificates issued by Member States, including measures which are already authorised by the Member State concerned on the basis of notified deviations from Annex 14 to the Chicago Convention before the entry into force of this Regulation.
- 31. Conversion: A period of 48 months is proposed to allow Member States to convert their existing aerodrome certificates/licences into aerodrome certificates considered to be issued under the Basic Regulation. It relates to the dimension of time only and not to the process involved in converting the old certificate to the new one.
- Acceptance: The major change following the introduction of the measures is the 32. 'acceptance' process involved in converting the existing certificate/licence. It gives the NAA the option to transfer the conditions of the existing certificate/licence to the new certificate subject to certain requirements. It is expected that existing deviations will be jointly reviewed during the acceptance procedure and compared with the new rules. The procedure may result in some items transferring to an ELoS, some to an SC, and those that remain may be included in a document, informally referred to as 'Deviation Acceptance & Action Document' (DAAD)⁶. This mechanism is described in Article 7 of the draft Regulation. This document will involve a safety assessment that supports the continued deviation and will be accompanied with a possible action plan that indicates the conditions appropriate to removing them and/or any possible mitigation measures while they remain on the list. Once agreed, the DAAD will be attached to the new certificate, possibly with caveats requiring review obligations. Unlike the conversion, the DAAD action plan is not time-bound. It should be noted that the Agency will take no part in the acceptance process; it is purely an action between the NAA and the aerodrome.
- 33. This mechanism is designed to keep the acceptance procedure simple and the use of the DAAD will avoid any undue burden on NAAs and aerodromes during the acceptance process and ensure continuity of the aerodrome operation.
- 34. As described above, the acceptance process is designed to allow aerodromes to easily convert their existing aerodrome certificates/licences to a new one based on the EU rules. The DAAD option has been developed to support this acceptance process only. It is not intended for the DAAD to be used in any other circumstances. It should be produced jointly by the NAA and the aerodrome to document those existing deviations and non-compliances that remain after reviewing them with the new aerodrome rules.
- 35. It is intended that the DAAD will be individual to each aerodrome.
- 36. Further to the procedures described above, consideration has also been given to defining the conditions that require an aerodrome operator to notify the NAA of changes once the certificate has been issued. The Agency has recognised that NAA approval for all changes would be both cumbersome and counterproductive to the management of the aerodrome. To enable an aerodrome operator to implement changes without prior competent authority approval in accordance with ADR.OR.B.040, the competent authority shall approve a procedure submitted by the aerodrome operator defining the scope of such changes and describing how such changes will be managed and notified.

Article 7 of the draft Regulation contains the deviation mechanism from the Certification Specification requirements.

Structure of rules

- 37. The proposed aerodrome (ADR) rules are structured into three parts: 'Part Authority Requirements (AR)', 'Part Organisation Requirements (OR)' and 'Part Operational Requirements (OPS)'.
- 38. Part-AR contains the requirements to be fulfilled by the competent authority. The part contains three sections covering *General Requirements, Management and Oversight and Certification and Enforcement*. It includes (Annex I):
 - the requirements for the competent authorities' management systems;
 - the procedure for reviewing and accepting a proposed applicable aerodrome certification basis submitted by an applicant;
 - the conditions for a decision to grant exemptions foreseen in Article 4.3b of the Basic Regulation;
 - the approval process for the aerodrome manual defining aerodrome particulars, services and operations;
 - the authority requirements for the issuing, maintaining, amending, suspending or revoking certificates for aerodromes and aerodrome operators as applicable in a Member State;
 - measures and provision of details for the acceptance and the conversion of existing aerodrome certificates issued by the EASA Member States;
 - the authority requirements in relation to continuing safety oversight of aerodromes, their operations and services and the aerodrome operators;
 - the conditions under which operations shall be prohibited, limited or shall be subject to certain conditions in the interest of safety.
- 39. To supplement the requirements as per Part-AR, this NPA includes the draft Decision 201X/XXX/R detailing related AMC and GM.
- 40. Part-OR contains the requirements to be fulfilled by the aerodrome operator. The part contains five sections covering *General Requirements, Certification Declaration, Operator Responsibilities and Management and Manuals.* It includes (Annex II):
 - the conditions for operating an aerodrome in compliance with the ERs of Annex Va and, if applicable, Annex Vb to the Basic Regulation;
 - the eligibility criteria, responsibilities and privileges of an aerodrome operator organisation;
 - the requirements for an aerodrome management system, containing the Safety Management System;
 - the process for the development and the content of the aerodrome manual and the requirements to operate the aerodrome in accordance with it;
 - in collaboration with group ADR.002, the aerodrome operational services, detailed related competences, procedures and obligations of the provider of those services;
 - the responsibilities of the aerodrome operator and third parties providing aerodrome operational services, including procedures for the aerodrome operator's monitoring and supervision of third parties' operations on the movement area.
- 41. To supplement the requirements as per Part-OR, this NPA includes the draft Decision 201X/XXX/R detailing related AMC and GM.
- 42. Part-OPS contains the requirements to be fulfilled by the aerodrome operator. The part contains three sections covering *Aerodrome Data, Aerodrome Operational Services, Equipment and Installations and Aerodrome Maintenance.* It includes (Annex III):

- requirements and processes for the safe operations of aerodromes, including aerodrome maintenance;
- requirements and processes for safe aerodrome operational services, regardless of whether the aerodrome operator or a third party is providing them;
- requirements for the safety of aircraft-related ground operations provided on the movement area.
- 43. To supplement the requirements as per Part-OPS, this NPA includes the draft Decision 201X/XXX/R detailing related AMC and GM.
- 44. To support the introduction of the rules mentioned above, the Agency has included two additional books detailing the CSs required to construct the CB and a book of Guidance Material (GM) to describe the application of the CSs in more detail.
- 45. These specifications prescribe the physical characteristics and obstacle limitation surfaces to be provided for at aerodromes, and certain facilities normally provided at an aerodrome. It is not intended that these specifications will limit or regulate the operation of an aeroplane.
- 46. To a great extent, the specifications for individual facilities have been interrelated by a reference code system, described in this Regulation and by the designation of the type of runway for which they are to be provided as specified in the definitions. This doesn't only simplify the reading of this Regulation, but it provides in most cases for efficiently proportioned aerodromes when the specifications are followed.
- 47. This Regulation sets forth the minimum aerodrome specifications for aircraft which have the characteristics of those which are currently operating or for similar aircraft that are planned for introduction. Accordingly, any additional safeguards that might be considered appropriate to provide for more demanding aircraft are not taken into account. Such matters are left to the appropriate competent authority to evaluate for each particular aerodrome.
- 48. It is to be noted that the specifications for category II and III precision approach runways are only applicable to runways intended to be used by aeroplanes in code numbers 3 and 4.
- 49. The CSs do not include specifications relating to the overall planning of aerodromes (such as separation between adjacent aerodromes or capacity of individual aerodromes), impact on the environment, or to economic and other non-technical factors that need to be considered in the development of an aerodrome.
- 50. Book 1 contains the CSs for Aerodrome Physical Characteristics. It includes:
 - the design of the infrastructure;
 - the location of the infrastructure;
 - the performance requirements of the infrastructure;
 - marking of the infrastructure; and
 - lighting associated with the infrastructure.
- 51. Book 2 contains the Guidance Material to support Book 1.

IV. Regulatory Impact Assessment summary⁷

Aerodromes national requirements have been increasingly diverging over the years due to differences in the application of ICAO Annex 14. As a consequence, those different requirements can be interpreted in different ways, creating a difficult operational environment for flight crews. Currently there are no imminent aerodrome safety issues known. However, traffic forecasts indicate an increase from 10 million commercial flights in 2010 to a peak of 15–21 million in 2030 (EUROCONTROL). This traffic increase could lead to safety challenges in the absence of a common approach to safety at aerodrome level. This is referred in the RIA as the 'baseline scenario'.

Challenges

In response to the challenges described above, Regulation (EC) No 1108/2009 provides the basic framework for the development of European Implementing Rules for aerodromes which should address the following issues:

- 1. Provision of a standardised interpretation of ICAO Annex 14 requirements and other technical requirements to maintain the current high safety level at airports with the future increase of airlines traffic.
- 2. Development of common requirements for the certification process of European aerodromes ensuring smooth conversion of the national aerodrome certificates without disruption.

Note: 605 aerodromes fall under the scope of Regulation (EC) No 1108/2009; 429 aerodromes are above the threshold of 10 000 commercial passengers per year, and a minimum of 151 aerodromes are under this threshold⁸, where they can be exempted from the European rules for aerodrome safety.

Note: Aerodrome certification was introduced 10 years ago in ICAO Annex 14. 78 % of the aerodromes in Europe above 10 000 passengers per year have a national certificate; the remaining 22 % will be certified in the near future (most of them before 2015). On the contrary, only 53 % of the aerodromes below the mentioned exemption threshold will be certified. Member States may exempt these aerodromes from the application of the draft ADR rules.

Objective

The objectives of the draft aerodromes (ADR) Implementing Rules are:

- to ensure that the flexibility required by the Basic Regulation on the conversion of national certificates is achieved;
- to ensure that the authority and organisation requirements can be integrated at NAAs and aerodrome level in a timely manner; and
- to define common requirements for aerodrome design and operation ensuring adequate level of aviation safety.

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The full Regulatory Impact Assessment can be found in Appendix D (NPA 2011-20 (D)).

These 159 aerodromes include 5 military aerodromes open for commercial traffic. 2 aerodromes are not yet in one of these categories due to insufficient information.

Development of options to meet the objectives

The development of the options to meet the objectives led to two alternatives to be compared with the baseline scenario (Option 0).

Option 1 — The pragmatic approach

Technical harmonisation

The ICAO Standards and Recommended Practices have to be evaluated on a case-by-case basis and be transposed into European law at the appropriate level: Certification Specifications, Implementing Rules, Acceptable Means of Compliance and Guidance Material.

Certification process

If compliance with the new European CSs or the IRs is not met at an aerodrome an Equivalent Level of Safety (ELoS) with mitigation measures or a Special Condition (SC) may be applied to this airport due to its unusual environment.

If an existing aerodrome deviation from design CS could not be justified by using an ELoS or SC, the Member State would only have the remaining solution to send a derogation request to the European Commission (Article 14.6 of the Basic Regulation).

Option 2 — The pragmatic approach with additional flexibility

Technical harmonisation is identical to option 1.

Certification process

In case the certification process described in option 1 reveals some insufficiencies regarding the objective of flexibility (i.e. examples of deviations versus a CS or IR which cannot be justified with an ELoS or a Special Condition), there is the opportunity to develop additional processes to meet the flexibility enshrined in the Basic Regulation and in the safety objective.

To address this case of non-flexibility and to avoid the derogation process, a process leading to a document informally referred to as 'Deviation Acceptance & Action Document' (DAAD) was developed to justify existing deviations. The DAAD requires, as a minimum, a safety assessment to indicate how the situation at the airport (including mitigation measures) satisfies the Essential Requirements (ERs) of Annex Va to the Basic Regulation.

Applied methodology

Having in mind the objectives, the impacts of the rules cannot be directly assessed because it all depends on their application and on making use of their flexibility. The most appropriate methodological approach was therefore to perform case studies on a sample of NAAs and airports to provide examples of the projected application of the rules to assess their impacts.

The global outcome is a qualitative assessment of the different impacts: safety, environmental, social, economic, proportionality issues, and regulatory harmonisation.

Analysis of impacts

Outcome of the case studies

The case studies have shown how the certification process will be flexible in handling deviations from European rules and providing a mechanism to manage safety during the conversion period. However, this process will require resources to identify and manage deviations and carry out actions to mitigate safety risks. The resources required will depend on the scale of such deviations and a proportionate approach will be necessary.

There is not always one way to demonstrate compliance with the draft aerodrome rules. The fundamental outcome of the case study exercise is that it has been always possible to use one of the 'flexibility' tools to justify compliance with the draft aerodrome rules, providing that at least a safety assessment was or will be performed.

It was found that half of the deviations discussed for the selected aerodromes can be easily justified with the current actions already under development or planned by the aerodrome operator. The remaining half of the deviations would require a safety assessment which should not involve additional extensive studies during the conversion process⁹.

Analysis per type of impacts

The options were assessed on several types of impacts: safety, environment, social, economic, proportionality issues, and regulatory harmonisation.

The safety challenges are addressed by option 2 which allows a smooth conversion of the existing national certificate with the adequate consideration to flexibility (thanks to the DAAD), while option 1 delivers slower benefits due to the potential risks of derogation treatments.

Environmental impacts are not relevant for these draft aerodrome rules.

There are no social risks in terms of negative impacts for economic regional development with option 2. On the contrary, in case of derogation request with option 1, the risks of suspension of airport operation would threaten the economic viability of aerodrome operators (and more particularly smaller ones). This would have potential detrimental impacts on regional development.

Option 2 ensures that economic resources are efficiently used by avoiding time spent on justification of derogations which would occur with Option 1. The additional flexibility introduced by Option 2 also allows proportionate rules for smaller aerodromes. Proportionate rules have been ensured by following the ICAO breakdown according to different types of aerodromes. SMS requirements were tailored to the size of aerodrome operators.

Both options are a key step for a smooth aerodrome certification harmonisation of 31 European countries with requirements most identical to ICAO Annex 14. Europe will more effectively coordinate the development of ICAO SARPs.

Conclusion

Option 2 combines a pragmatic approach with additional flexibility and thus ensures that the objectives defined above are met.

Based on the information gathered during the case study exercise.

Monitoring

Developing rules is one activity; making sure that they are correctly applied is another one. In the case of the draft aerodrome rules, the wide scope of these rules and their flexibility could be factors for misunderstanding unless training is provided and monitoring supports the identification of raising concerns.

V. Guidance to the reader

The following section (B — Draft Opinions and Decisions) contains the Implementing Rules (IRs) for competent authorities and aerodrome operators as well as the underpinning material, available at this stage, to add definition to the higher IRs level.

As a result of providing the reader with this additional material to help them get the full picture of the proposed aerodrome safety regulation, this NPA is large and appears complex too. The number of pages and the highly technical content cannot be avoided as it is necessitated by the use of existing regulatory material as a basis, particularly Annex 14, Volume 1, to the Chicago Convention.

The readers' comments, however, are crucial for the improvement of the draft proposal. In order to ensure the involvement of the highest professional and expert knowledge in the process, the draft rule has included some features — unique to this NPA — to help achieve that goal. Therefore, to overcome the apparent complexity of this NPA, several technical attributes were designed and incorporated to facilitate the reading, comprehension and commenting of the proposed rules.

Particular attention has been paid to improve transparency and to provide a visible structure of the document.

The cross-referencing of the proposed rules to existing material is crucial and is facilitated by the following:

At the end of every proposed rule, an indication is made to inform the reader about the origin of the individual rule. This provides direct and easy information as to whether the rule is identical, altered, deleted or moved to GM, revised or in addition to ICAO SARPs or proposals established by the working groups. This is indicated by the following examples:

Where the Rule is the same as the ICAO SARP:

ADR.OPS.000 — Access to the movement area ICAO

No additional information is required.

Where the NPA **text** differs marginally from the ICAO SARP mainly for editorial reasons, without changing meaning:

ADR.OPS.000 — Aerodrome works safety TXT

Followed by a description of the alteration; e.g. order of the text within a sentence, paragraph or section; use of a different word or phrase.

Where the NPA text proposes to delete or move the ICAO SARP, either in its entirety:

ADR.A.000 — Choice of maximum permissible crosswind components DEL or MOVE to GM

Followed by the rationale for deletion or move to GM.

Where the NPA text presents a revision of the working group text:

ADR.A.000 — Approach slope and elevation setting of light units (for PAPI and APAPI) REV

Followed by a description of the revised text, figure or table; e.g. if any of the above actions has been taken without providing justification.

Note: By default, and if not indicated 'REV', the NPA text follows the Working Group proposal.

Where the NPA text presents an addition to the ICAO SARP:

ADR.A.000 — Aiming point marking ADD

Followed by the additional text, table or figure.

Furthermore, Chapter C lists the differences proposed and provides respective explanation to the proposed change. It is suggested that this chapter is read concurrently with the proposed rules described above.

In addition to all the above, the layout of each page will clearly show which Annex, Part and Sub-part it is located in so that the readers can easily identify where they are within the NPA.

The Agency hopes that these features will be found to be instrumental in creating the most conducive basis for the readers' understanding of the rules and to allow for the development of a considered contribution for improvement. However, to help the reader further understand the intent of the regulations, additional information has been provided in the form of Frequently Asked Questions (FAQ) located on the Aerodromes/ATM section of the Agency's website. In addition to those FAQ, to test the results of this work and to ensure the rules developed by the group could be implemented, the Aerodrome Rulemaking Section undertook a simulation exercise to create a Certification Basis (CB) for an existing yet fictitious certified aerodrome. To ensure the exercise covered all the known alternative measures available to an NAA undertaking the exercise in the future,

the Rulemaking Section developed its own model aerodrome, known as 'Kolndorf' to use as a basis for the exercise. The report of this simulation exercise can also be found on the Aerodromes/ATM Section of the Agency's website.

VI. How to comment on this NPA

- 52. Comments to this NPA may be submitted to the Agency within 3 months as of the date of publication in accordance with Article 6(4) of the Rulemaking Procedure.
- 53. Comments should be submitted by one of the following methods:

CRT: Submit your comments using the Comment Response Tool (CRT)

available at http://hub.easa.europa.eu/crt/.

E-mail: Comments can be sent by e-mail **only** in case the use of the CRT is

prevented by technical problems. The(se) problem(s) should be reported to the <u>CRT webmaster</u> and comments should be sent by

e-mail to NPA@easa.europa.eu.

Correspondence: If you do not have access to the Internet or e-mail, you can send

your comments by regular mail to:

European Aviation Safety Agency (EASA)

Rulemaking Directorate

R.6 — Process Support Department

Postfach 10 12 53 D-50452 Cologne

The deadline for submission of comments is **31 March 2012**. Comments received after this date may not be taken into account.

VII. Next steps

- 54. Following the closing of the NPA consultation, the Agency will consider all comments and will publish a Comment Response Document (CRD). The CRD will be available on the Agency's website and in the Comment Response Tool (CRT).
- 55. Following the CRD publication, the Agency performs a final review and publishes the Opinion and/or Decision in due course.

B. Proposed rules

- I. Draft Implementing Rule (see NPA 2011-20 (B.I))
 - a. Draft Commission Regulation
 - b. Annex I Part-AR
 - c. Annex II Part-OR
 - d. Annex III Part-OPS
- II. Draft Acceptable Means of Compliance and Guidance Material (AMC/GM) (see NPA 2011-20 (B.II))
 - a. AMC/GM to Annex I Part-AR
 - b. AMC/GM to Annex II Part-OR
 - c. AMC/GM to Annex III Part-OPS
- III. Draft Certification Specifications (CSs) (see NPA 2011-20 (B.III))
 - a. CS-ADR-DSN Book 1
 - b. CS-ADR-DSN Book 2

C. Cross reference tables (see NPA 2011-20 (C))

- a. Cross references and Explanation to Annex I Part-AR
- b. Cross references and Explanation to Annex II Part-OR
- c. Cross references and Explanation to Annex III Part-OPS
- d. Cross references and Explanation to CS-ADR-DSN Book 1

D. Regulatory Impact Assessment (see NPA 2011-20 (D))