



Comment-Response Document 2014-07

Technical requirements and operational procedures for the provision of meteorological services

CRD TO NPA 2014-07 — RMT.0473 & RMT.0474 — 12.12.2014

Related Opinion No 03/2014

EXECUTIVE SUMMARY

This Comment-Response Document (CRD) contains the comments received on NPA 2014-07 and the responses provided thereto by the Agency.

The primary objective of rulemaking tasks RMT.0473 and RMT.0474 was to complement the rules related to the provision of meteorological services in Subpart A of Annex IV (Part-MET). Said rules were proposed through NPA 2013-08 (A) 'Requirements for ATM/ANS providers and the safety oversight thereof', published on 10 May 2013. For this purpose, the technical requirements for the provision of meteorological services have been developed.

During the public consultation, the Agency received 447 comments.

Following an Agency assessment of the comments received, it can be concluded that there is a general support for and acceptance of the proposed amendments. However, there were some important comments making suggestions or requesting clarifications and changes to the proposed text. These comments have been considered by the Agency and many of them have been included in the revised text. A selection of some key changes to NPA 2014-07 follows:

- The order of the chapters has been amended to list in a more logical way the meteorological service providers according to the type of services they provide;
- The text on the SPECI-related criteria has been reintroduced in the revised text;
- The time of transmission of a valid TAF has been corrected, in accordance with the ICAO Annex 3 text;
- The templates for aerodrome warnings, local routine and special reports have been moved to AMC material; and
- The model charts and form of Appendix 1 to ICAO Annex 3 have been integrated in the revised text, where relevant.

Based on the comments and responses thereto, Opinion No 03/2014 was developed.

For information, the Agency publishes the draft AMC/GM in this CRD.

Applicability			Process map	
Affected regulations and decisions:	Commission (EU) No 1035/2011	Implementing Regulation	Concept Paper:	No
			Terms of Reference:	7.9.2012
			Rulemaking group:	No
Affected stakeholders:	Member States; authorities/national authorities; meteorological providers; EASA.	competent supervisory service	RIA type:	N/A
			Technical consultation during NPA drafting:	No
			Publication date of the NPA:	28.3.2014
			Duration of NPA consultation:	3 months
Driver/origin:	Legal obligation (Regulation (EC) No 216/2008 and ICAO SARPs)		Review group:	No
			Focussed consultation:	3.9.2014
Reference:	N/A		Publication date of the Decision:	2015/Q4
			RMT.0474	



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1. Procedural information

1.1. The rule development procedure

The European Aviation Safety Agency (hereinafter referred to as the 'Agency') developed this Comment-Response Document (CRD) in line with Regulation (EC) No 216/2008¹ (hereinafter referred to as the 'Basic Regulation') and the Rulemaking Procedure².

This rulemaking activity is included in the [Agency's Rulemaking Programme](#), under RMT.0473 & RMT.0474. The scope and timescale of the task were defined in the related Terms of Reference (see process map on the title page).

The draft Regulation and AMC/GM have been developed by the Agency based on the input of the Rulemaking Group RMT.0473 & RMT.0474. All interested parties were consulted through NPA 2014-07³, which was published on 28 March 2014. A total of 447 comments were received from interested parties, including industry, national aviation authorities and associations.

The text of this CRD has been developed by the Agency based on a thematic meeting held with the experts of the rulemaking group and other experts who contributed to the NPA consultation.

The process map on the title page contains the major milestones of this rulemaking activity.

1.2. The structure of this CRD and related documents

This CRD provides the full set of individual comments (and responses thereto) received on NPA 2014-07. The resulting text for AMC and GM is provided in Chapter 3 of this CRD, whereas the Implementing Rules are provided in Subpart B of Annex V to **Opinion No XX/201X**.

1.3. The next steps in the procedure

This CRD is published together with Opinion No XX/201X, containing the proposed Implementing Rule, and is addressed to the European Commission.

The Decision containing AMC and GM will be published by the Agency when the related Implementing Rule is adopted by the European Commission.

¹ Regulation (EC) No 216/2008 of the European Parliament and of the Council of 20 February 2008 on common rules in the field of civil aviation and establishing a European Aviation Safety Agency, and repealing Council Directive 91/670/EEC, Regulation (EC) No 1592/2002 and Directive 2004/36/EC (OJ L 79, 19.3.2008, p. 1).

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 Decision No 01-2012 of 13 March 2012.

³ <http://easa.europa.eu/document-library/notices-of-proposed-amendments/npa-2014-07>. Please note that this NPA comprised NPA 2014-07 (A) including the Explanatory Note and the draft rule text and NPA 2014-07 (B) including the drafting document published for information only.



2. Summary of comments and responses

In total, 447 comments were received during the consultation of the NPA. The comments were submitted by 32 stakeholders: 14 national aviation authorities, 7 air navigation services providers, 1 aerodrome operator, 6 meteorological institutes, 1 air traffic services provider, 2 professional associations and 1 airline. These 447 comments were responded to as follows: 140 were accepted, 21 were partially accepted, 109 were noted and 177 were not accepted.

NPA number	Description	Pages	Segments	Comments	Users
NPA 2014-07(A)	Explanatory Note	13	3	54	22
	Implementing Rule	23	15	156	29
	AMC/GM	36	70	159	29
	Appendices	58	3	20	6
NPA 2014-07(B)	Drafting Document Table	217	3	58	15
		347		<u>447</u>	

Table 1: Distribution of comments received on NPA 2014-07(A) and NPA 2014-07(B)

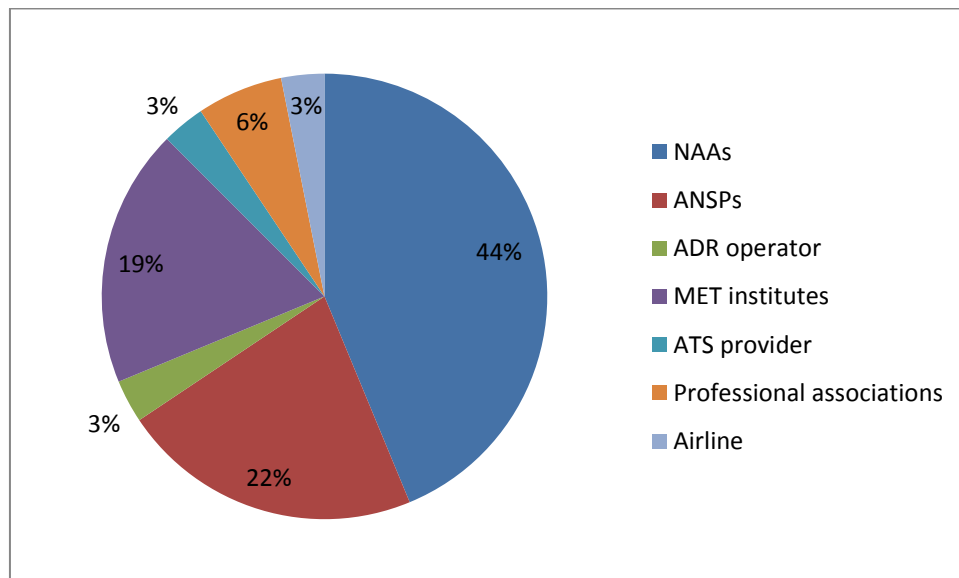


Figure 1: Distribution of the comments received according to stakeholders' sectors

The Agency highlights that more than half of the comments made were duplicates, editorial or reference issues. The technical comments rise to approximately 200.

The main areas of concern were the following:

- The criteria for local special reports;



- The non-transposition of GAMET;
- The non-transposition of the volcano observatories;
- Time of transmission of valid TAF;
- The term ‘meteorological authority’;
- XML vs GML language;
- Some upgrade of ICAO recommendation to Implementing Rules; and
- Misalignment between text of NPA (A) and text of NPA (B).

The following paragraphs provide a summary of the main comments and conclusions on the main topics that have been identified in the public-consultation process.

1. **SPECI-related criteria:** Numerous stakeholders were concerned that the related criteria for local special reports were not transposed from ICAO Annex 3, 2.3.2, arguing that it would lead to significant loss of aviation safety and consistency between EU Member States. It was not the intention of the Agency to leave these criteria out of the text. They were removed accidentally in the course of multiple changes made to the draft text. They are now inserted back again in the resulting text, in accordance with ICAO Annex 3, 2.3.2.
2. **Appendix 1 to ICAO Annex 3:** A number of comments highlighted the inconsistency between some ICAO Annex 3 tables and templates that have been transposed and the models and charts in ICAO Appendix 1 which were not transposed, making just a reference thereto in the text. The Agency has now transposed said charts and forms in the relevant parts of the resulting text.
3. **Reference numbering:** Many comments highlighted the references misalignment between NPA 2014-07 (A) and NPA 2014-07 (B). While the Agency recognises some misalignment between the two sub-NPAs due to several changes to the draft rule text at the last minute, it underlines that the drafting document (NPA 2014-07 (B)) only constituted information material and that the referenced text to be commented on was the draft rule text in NPA 2014-07 (A). Yet, the Agency has now ensured that all the reference numbers are correct in the draft rule text.
4. **TAF:** The time of transmission of a valid TAF was subject to many comments due to the fact that it was not following the text of ICAO Annex 3, Appendix 10, 2.1.2. The Agency has now aligned with the ICAO Annex 3 text.
5. **Averaging period for visibility:** The ICAO recommendation 4.2.3 a) on the 1-minute averaging visibility for local routine and special reports was transposed as Implementing Rule as it was considered to be a common safety practice in Europe. After having received some comments highlighting that this 1-minute value could lead to unrepresentative observations when the observed weather phenomena are small in scale or short term. The Agency agreed to keep this provision as a recommendation and it has, therefore, been moved to AMC material.
6. **SIGMET:** Following the comments received on the sequence numbering of SIGMET, the Agency concluded that the provision in 1.1.3 of Appendix 6 to ICAO Annex 3 could be improved. Therefore, the Agency proposes a different approach to clarify the numbering of a SIGMET message. The new provision is in MET.TR.250(b) and (c).
7. **Definitions:** The following definitions have been added as requested by stakeholders:



- 'Minimum sector altitude';
 - 'Alternate aerodrome';
 - 'Take-off alternate';
 - 'Destination alternate'; and
 - 'En-route alternate'.
8. **Order of the chapters:** The chapters have been revised and now follow a more logical sequence according to the type of MET provider, starting from local level and continuing to a more global level: aeronautical meteorological stations, aeronautical meteorological offices, meteorological watch offices, VAAC, TCAC and WAFC.
 9. **Template for aerodrome warnings:** Table 6 of Appendix 1 (Template for aerodrome warnings) is moved to AMC material as it is noted that, in practice, warnings are/need to be issued differently than presented in the template. Table 6 of Appendix 1 transposed Table A6-2 of Appendix 6 to ICAO Annex 3.
 10. **Template for the local routine and local special reports:** Table 4 of Appendix 1 (Template for the local routine (MET REPORT) and local special (SPECIAL) reports) is moved to AMC level as it proposes an alternative way to issue local routine and special reports other than according to the table. Table 4 of Appendix 1 transposed Table A3-1 of Appendix 6 to ICAO Annex 3.
 11. **Local routine and special reports:** The term 'local routine and special reports' is now replaced by 'local routine and special reports' throughout the text, for consistency.
 12. **List of additional AMC/GM and deleted AMC/GM:**
 - 2 GMs added on Meteorological Bulletins;
 - 1 GM added on aerodrome meteorological offices;
 - 1 AMC added to include the template for aerodrome warnings;
 - 1 AMC added to include the template for local routine and special reports;
 - 1 AMC related to supplementary information for wind shear warnings is deleted;
 - 1 GM added on the dissemination of wind shear alerts;
 - The GM related to the example of volcanic activity report is deleted;
 - 1 GM on ATS units related to meteorological reports is added;
 - 1 GM on 'marked continuity' is added;
 - The AMC related to the characteristics of present weather phenomena is deleted;
 - 1 AMC on human observation is added;
 - The related AMC on 'display' for meteorological observation is deleted;
 - 1 GM on marked discontinuity for visibility is added; and
 - 2 AMCs on the sequence number for SIGMET messages are added.



13. **ICAO Annex 3 Attachments:** Attachments A and B are now directly transposed into the rule text and not referred to anymore.



3. Resulting text

3.1. Draft regulation (EASA Opinion)

The Implementing Rules related to this CRD are not presented in this document but are introduced in Annex V to the draft regulation in Opinion XX/2014.

3.2. Draft AMC and GM (Draft ED Decision)

ACCEPTABLE MEANS OF COMPLIANCE AND GUIDANCE MATERIAL TO ANNEX V — SPECIFIC REQUIREMENTS FOR THE PROVISION OF METEOROLOGICAL SERVICES (Part-MET)

SUBPART A — TECHNICAL REQUIREMENTS FOR THE PROVISION OF METEOROLOGICAL SERVICES (MET.TR)

Section 1 — General requirements

GM1 MET.TR.115(a) Meteorological bulletins

ALPHANUMERICAL FORMAT

The format of the meteorological bulletins is understood to be that in alphanumerical format.

GM2 MET.TR.115(a) Meteorological bulletins

COMPOSITION AND FILING TIMES OF BULETINS

- (a) Whenever possible, exchanges of operational meteorological information should be made in consolidated bulletins of the same types of meteorological information.
- (b) Meteorological bulletins required for scheduled transmissions should be filed regularly and at the prescribed scheduled times.

GM3 MET.TR.115(a) Meteorological bulletins

HEADING

Detailed specifications on format and contents of the heading are given in the WMO Publication No 386, Manual on the Global Telecommunication System, Volume I, and in the ICAO Manual of Aeronautical Meteorological Practice (Doc 8896).

GM1 MET.TR.115(a)(2) Meteorological bulletins

LOCATION INDICATOR

ICAO location indicators are listed in Location Indicators (Doc 7910).

Section 2 — Specific requirements

Chapter 1 — Technical requirements for aeronautical meteorological stations

GM1 MET.TR.200(a)(2) Meteorological reports and other information

LOCATION INDICATOR

The location indicators and their significations are published in Location Indicators (Doc 7910).



AMC1 MET.TR.200(a)(4) Meteorological reports and other information
AUTOMATED REPORTING

Local routine and special reports and METAR from automatic observing systems should be identified with the word 'AUTO'.

AMC1 MET.TR.200(a)(12) Meteorological reports and other information
SUPPLEMENTARY INFORMATION — WEATHER PHENOMENA — SEMI-AUTOMATIC OBSERVING SYSTEM

- (a) In local routine and special reports and in METAR when reported by a semi-automatic observing system, the following recent weather phenomena should be reported, up to a maximum of three groups, in the supplementary information:
- (1) freezing precipitation;
 - (2) moderate or heavy precipitation, including showers thereof;
 - (3) blowing snow;
 - (4) dust storm, sandstorm;
 - (5) thunderstorm;
 - (6) funnel cloud, tornado or water spout; and
 - (7) volcanic ash.
- (b) In local routine and special reports when reported by a semi-automatic observing system, the following significant meteorological conditions, or combinations thereof, should be reported in the supplementary information:
- (1) cumulonimbus clouds (CB);
 - (2) thunderstorm (TS);
 - (3) moderate or severe turbulence (MOD TURB, SEV TURB);
 - (4) wind shear (WS);
 - (5) hail (GR);
 - (6) severe squall line (SEV SQL);
 - (7) moderate or severe icing (MOD ICE, SEV ICE);
 - (8) freezing precipitation (FZDZ, FZRA);
 - (9) severe mountain waves (SEV MTW);
 - (10) dust storm, sandstorm (DS, SS);
 - (11) blowing snow (BLSN); and
 - (12) funnel cloud (tornado or water spout) (FC).

The location of the condition should be indicated. Where necessary, additional information should be included using abbreviated plain language.



AMC2 MET.TR.200(a)(12) Meteorological reports and other information**SUPPLEMENTARY INFORMATION — WEATHER PHENOMENA — AUTOMATIC OBSERVING SYSTEM**

In local routine and special reports and in METAR reported by an automatic observing system, the following recent weather phenomena should be reported, up to a maximum of three groups, in the supplementary information:

- (a) freezing precipitation;
- (b) moderate or heavy precipitation, including showers thereof;
- (c) thunderstorm; and
- (d) unknown precipitation (UP).

AMC3 MET.TR.200(a)(12) Meteorological reports and other information**SUPPLEMENTARY INFORMATION — WIND SHEAR**

Information on wind shear should be included as supplementary information in local routine and special reports and in METAR, where local circumstances so warrant.

AMC4 MET.TR.200(a)(12) Meteorological reports and other information**SUPPLEMENTARY INFORMATION — SEA-SURFACE TEMPERATURE AND STATE OF THE SEA AND OF THE RUNWAY**

In METAR, the following information should be included in the supplementary information:

- (a) information on sea-surface temperature and the state of the sea or the significant wave height from aeronautical meteorological stations established on offshore structures in support of helicopter operations; and
- (b) information on the state of the runway provided by the appropriate airport authority.

AMC5 MET.TR.200(a)(12) Meteorological reports and other information**SUPPLEMENTARY INFORMATION — SIGNIFICANT METEOROLOGICAL CONDITIONS**

- (a) Observations made at aerodromes should include the available supplementary information concerning significant meteorological conditions, particularly those in the approach and climb-out areas.
- (b) Where practicable, the information should identify the location of the meteorological condition.

GM1 to AMC1 & AMC2 MET.TR.200(a)(12) Meteorological reports and other information**SUPPLEMENTARY INFORMATION — RECENT WEATHER PHENOMENA**

‘Recent weather phenomena’ is understood as being the weather phenomena observed at the aerodrome during the period since the last issued routine report or last hour, whichever is the shorter, but not at the time of observation.

GM2 to AMC3 MET.TR.200(a)(12) Meteorological reports and other information**SUPPLEMENTARY INFORMATION — LOCAL CIRCUMSTANCES**

Local circumstances include but are not necessarily limited to wind shear of such non-transitory nature that might be associated with low-level temperature inversions or local topography.



AMC1 MET.TR.200(b) Meteorological reports and other information**TEMPLATE FOR THE LOCAL ROUTINE AND SPECIAL REPORTS**

Local routine and special reports should be issued in abbreviated plain language, in accordance with the below template.

Template for the local routine (MET REPORT) and local special (SPECIAL) reports					
Key:	M = inclusion mandatory, part of every message; C = inclusion conditional, dependent on meteorological conditions; O = inclusion optional.				
<i>Element as specified in Chapter 4</i>	<i>Detailed content</i>	<i>Template(s)</i>			<i>Examples</i>
Identification of the type of report (M)	Type of report	MET REPORT <i>or</i> SPECIAL			MET REPORT SPECIAL
Location indicator (M)	ICAO location indicator (M)	nnnn			YUDO
Time of the observation (M)	Day and actual time of the observation in UTC	nnnnnnZ			221630Z
Identification of an automated report (C)	Automated report identifier (C)	AUTO			AUTO
Surface wind (M)	Name of the element (M)	WIND			WIND 240/4MPS (WIND 240/8KT)
	Runway (O)	RWY nn[L] <i>or</i> RWY nn[C] <i>or</i> RWY nn[R]			WIND RWY 18 TDZ 190/6MPS (WIND RWY 18 TDZ 190/12KT)
	Runway section (O)	TDZ			
	Wind direction (M)	nnn/	VRB BTN nnn/ AND nnn/ <i>or</i> VRB	C A L M	WIND VRB1MPS WIND CALM (WIND VRB2KT) WIND VRB BTN 350/ AND 050/1MPS (WIND VRB BTN 350/ AND 050/2KT)
	Wind speed (M)	[ABV]n[n][n]MPS (<i>or</i> [ABV]n[n]KT)			WIND 270/ABV49MPS (WIND 270/ABV99KT)
	Significant speed variations (C)	MAX[ABV]nn[n] MNMn[n]			WIND 120/3MPS MAX9 MNM2 (WIND 120/6KT MAX18 MNM4)
	Significant directional variations (C)	VRB BTN nnn/ AND nnn/	—		WIND 020/5MPS VRB BTN 350/ AND 070/ (WIND 020/10KT VRB BTN 350/ AND 070/)
	Runway section (O)	MID			WIND RWY 14R MID 140/6MPS



Element as specified in Chapter 4	Detailed content	Template(s)			Examples	
	Wind direction (O)	nnn/	VRB BTN nnn/ AND nnn/ or VRB	C A L M	(WIND RWY 14R MID 140/12KT)	
	Wind speed (O)	[ABV]n[n][n]MPS (or [ABV]n[n]KT)				
	Significant speed variations (C)	MAX[ABV]nn[n] MNMn[n]				
	Significant directional variations (C)	VRB BTN nnn/ AND nnn/	—			
	Runway section (O)	END			WIND RWY 27 TDZ 240/8MPS MAX14 MNM5 END 250/7MPS (WIND RWY 27 TDZ 240/16KT MAX28 MNM10 END 250/14KT)	
	Wind direction (O)	nnn/	VRB BTN nnn/ AND nnn/ or VRB	C A L M		
	Wind speed (O)	[ABV]n[n][n]MPS (or [ABV]n[n]KT)				
	Significant speed variations (C)	MAX[ABV]nn[n] MNMn[n]				
	Significant directional variations (C)	VRB BTN nnn/ AND nnn/	—			
Visibility (M)	Name of the element (M)	VIS			C A V O K	VIS 350M CAVOK VIS 7KM VIS 10KM VIS RWY 09 TDZ 800M END 1200M VIS RWY 18C TDZ 6KM RWY 27 TDZ 4000M
	Runway (O)	RWY nn[L] or RWY nn[C] or RWY nn[R]				
	Runway section (O) ³	TDZ				
	Visibility (M)	n[n][n][n]M or n[n]KM				
	Runway section (O) ³	MID				
	Visibility (O)	n[n][n][n]M or n[n]KM				
	Runway section (O) ³	END				
	Visibility (O)	n[n][n][n]M or n[n]KM				
Runway visual range (C)	Name of the element (M)	RVR				RVR RWY 32 400M RVR RWY 20 1600M
	Runway (C)	RWY nn[L] or RWY nn[C] or RWY nn[R]				



<i>Element as specified in Chapter 4</i>	<i>Detailed content</i>	<i>Template(s)</i>			<i>Examples</i>
	Runway section (C)	TDZ			RVR RWY 10L BLW 50M RVR RWY 14 ABV 2000M RVR RWY 10 BLW 150M RVR RWY 12 ABV 1200M RVR RWY 12 TDZ 1100M MID ABV 1400M RVR RWY 16 TDZ 600M MID 500M END 400M RVR RWY 26 500M RWY 20 800M
	RVR (M)	[ABV or BLW] nn[n][n]M			
	Runway section (C)	MID			
	RVR (C)	[ABV or BLW] nn[n][n]M			
	Runway section (C)	END			
	RVR (C)	[ABV or BLW] nn[n][n]M			
Present weather (C)	Intensity of present weather (C)	FBL or MOD or HVY	—		
	Characteristics and type of present weather (C)	DZ or RA or SN or SG or PL or DS or SS or FZDZ or FZUP or FC or FZRA or SHGR or SHGS or SHRA or SHSN or SHUP or TSGR or TSGS or TSRA or TSSN or TSUP or UP ¹²	FG or BR or SA or DU or HZ or FU or VA or SQ or PO or FC or TS or BCFG or BLDU or BLSA or BLSN or DRDU or DRSA or DRSN or FZFG or MIFG or PRFG or //		MOD RA HVY TSRA HVY DZ FBL SN HZ FG VA MIFG HVY TSRASN FBL SNRA FBL DZ FG HVY SHSN BLSN HVY TSUP //



<i>Element as specified in Chapter 4</i>	<i>Detailed content</i>	<i>Template(s)</i>			<i>Examples</i>
Cloud (M)	Name of the element (M)	CLD			CLD NSC
	Runway (O)	RWY nn[L] or RWY nn[C] or RWY nn[R]			
	Cloud amount (M) or vertical visibility (O)	FEW or SCT or BKN or OVC or ///	OBSC	NSC or NCD	CLD SCT 300M OVC 600M (CLD SCT 1000FT OVC 2000FT) CLD OBSC VER VIS 150M (CLD OBSC VER VIS 500FT)
	Cloud type (C)	CB or TCU or ///	—		CLD BKN TCU 270M (CLD BKN TCU 900FT)
	Height of cloud base or the value of vertical visibility (C)	n[n][n][n]M (or n[n][n][n]FT) or ///M (or ///FT)	[VER VIS n[n][n]M (or VER VIS n[n][n][n]FT)] or [VER VIS ///M (or VER VIS ///FT)]		CLD RWY 08R BKN 60M RWY 26 BKN 90M (CLD RWY 08R BKN 200FT RWY 26 BKN 300FT) CLD /// CB ///M (CLD /// CB ///FT) CLD /// CB 400M (CLD /// CB 1200FT) CLD NCD
Air temperature (M)	Name of the element (M)	T			T17 TMS08
	Air temperature (M)	[MS]nn			
Dew-point temperature (M)	Name of the element (M)	DP			DP15 DPMS18
	Dew-point temperature (M)	[MS]nn			
Pressure values (M)	Name of the element (M)	QNH			QNH 0995HPA QNH 1009HPA
	QNH (M)	nnnnHPA			
	Name of the element (O)	QFE			QNH 1022HPA QFE 1001HPA QNH 0987HPA QFE RWY 18 0956HPA RWY 24 0955HPA
	QFE (O)	[RWY nn[L] or RWY nn[C] or RWY nn[R]] nnnnHPA [RWY nn[L] or RWY nn[C] or RWY nn[R]] nnnnHPA			
Supplementary information (C)	Significant meteorological phenomena (C)	CB or TS or MOD TURB or SEV TURB or WS or GR or SEV SQL or MOD ICE or SEV ICE or FZDZ or FZRA or SEV MTW or SS or DS or BLSN or FC			FC IN APCH WS IN APCH 60M-WIND 360/13MPS



<i>Element as specified in Chapter 4</i>	<i>Detailed content</i>	<i>Template(s)</i>		<i>Examples</i>
	Location of the phenomena (C)	IN APCH [n][n][n]M-WIND nnn/n[n]MPS] or IN CLIMB-OUT [n][n][n]M-WIND nnn/n[n]MPS] (IN APCH [n][n][n]FT-WIND nnn/n[n]KT) or IN CLIMB-OUT [n][n][n]FT-WIND nnn/n[n]KT)) or RWY nn[L] or RWY nn[C] or RWY nn[R]		WS RWY 12
	Recent weather (C)	REFZDZ or REFZRA or REDZ or RE[SH]RA or RERASN or RE[SH]SN or RESG or RESHGR or RESHGS or REBLSN or RESS or REDS or RETSRA or RETSSN or RETSGR or RETSGS or REFC or REPL or REUP or REFZUP or RETSUP or RESHUP or REVA or RETS		REFZRA CB IN CLIMB-OUT RETSRA
Trend forecast (O)	Name of the element (M)	TREND		TREND NOSIG TREND BECMG FEW 600M (TREND BECMG FEW 2000FT) TREND TEMPO 250/18 MPS MAX25 (TREND TEMPO 250/36KT MAX50)
	Change indicator (M)	NOSIG	BECMG or TEMPO	
	Period of change (C)		FMnnnn and/or TLnnnn or ATnnnn	
	Wind (C)		nnn/[ABV]n[n][n]MPS [MAX[ABV]nn[n]] (or nnn/[ABV]n[n]KT [MAX[ABV]nn])	





GM1 MET.TR.200(b) Meteorological reports and other information**RANGES AND RESOLUTIONS — LOCAL ROUTINE AND LOCAL SPECIAL REPORTS**

- (a) The ranges and resolutions for the numerical elements included in the local routine and special reports are shown below.

Ranges and resolutions for the numerical elements included in local reports			
Element elements included in the local routine and special reports		Range	Resolution
Runway:		01–36	1
Wind direction:	°true	010–360	10
Wind speed:	MPS	1–99*	1
KT		1–199*	1
Visibility:	M	0–750	50
	M	800–4 900	100
	KM	5–9	1
	KM	10 –	0 (fixed value: 10 KM)
Runway visual range:	M	0–375	25
	M	400–750	50
	M	800–2 000	100
Vertical visibility:	M	0–75	15
	M	90–600	30
	FT	0–250	50
	FT	300–2 000	100
Clouds: height of cloud base:	M	0–75	15
	M	90–3 000	30
	FT	0–250	50
	FT	300–10 000	100
Air temperature;	°C	– 80 – + 60	1
Dew-point temperature:			
QNH; QFE:	hPa	0500–1 100	1



* There is no aeronautical requirement to report surface wind speeds of 100 kt (50 m/s) or more; however, provision has been made for reporting wind speeds up to 199 kt (99 m/s) for non-aeronautical purposes, as necessary.

** Under circumstances as specified in 4.5.4.3; otherwise a resolution of 100 ft (30 m) is to be used.

- (b) The explanations for the abbreviations can be found in the Procedures for Air Navigation Services — ICAO Abbreviations and Codes (PANS-ABC, Doc 8400).

GM1 MET.TR.200(b) & (c) Meteorological reports and other information

EXAMPLE OF METAR AND LOCAL ROUTINE REPORT

- (a) Local routine report (same location and weather conditions as METAR):

MET REPORT YUDO 221630Z WIND 240/4KT VIS 600M RVR RWY 12 TDZ 1000M MOD DZ FG CLD SCT 1000FT OVC 2000FT T17 DP16 QNH 1018HPA TREND BECMG TL1700 VIS 800M FG BECMG AT1800 VIS 10KM NSW

- (b) METAR for YUDO (Donlon/International)*:

METAR YUDO 221630Z 24004KT 0600 R12/1000U DZ FG SCT010 OVC020 17/16 Q1018 BECMG TL1700 0800 FG ECMG AT 1800 9999 NSW

Meaning of both reports:

Routine report for Donlon/International* issued on the 22nd of the month at 16.30 UTC; surface wind direction 240 degrees; wind speed 4 knots; visibility (along the runway(s) in the local routine report; prevailing visibility in METAR) 600 metres; runway visual range representative of the touchdown zone for runway 12 is 1 000 metres and the runway visual range values have shown an upward tendency during previous 10 minutes (Runway visual range tendency to be included in METAR only); and moderate drizzle and fog; scattered cloud at 1 000 feet; overcast at 2 000 feet; air temperature 17 degrees Celsius; dew-point temperature 16 degrees Celsius; QNH 1 018 hectopascals; trend during next 2 hours, visibility (along the runway(s) in the local routine report; prevailing visibility in METAR) becoming 800 metres in fog by 17.00 UTC; at 18.00 UTC visibility (along the runway(s) in the local routine report; prevailing visibility in METAR) becoming 10 kilometres or more and nil significant weather.

* Fictitious location

GM2 MET.TR.200(b)(1) Meteorological reports and other information

EXAMPLE OF LOCAL SPECIAL REPORT

Local special report:

SPECIAL YUDO 151115Z WIND 050/25KT MAX37 MNM10 VIS 1200M RVR RWY 05 ABV 1800M HVY TSRA CLD BKN CB 500FT T25 DP22 QNH 1018HPA TREND TEMPO TL1200 VIS 600M BECMG AT1200 VIS 8KM NSW NSC

Meaning:

Special report for Donlon/International* issued on the 15th of the month at 11.15 UTC; surface wind direction 050 degrees; wind speed 25 knots gusting between 10 and 37 knots; visibility 1 200 metres along the runway; Runway visual range above 1 800 metres at the threshold on runway 05; thunderstorm with heavy rain; broken cumulonimbus cloud at 500 feet; air temperature 25 degrees Celsius; dew-point



temperature 22 degrees Celsius; QNH 1 008 hectopascals; trend during next 2 hours, visibility along the runway temporarily 600 metres from 1 115 to 1 200, becoming at 12.00 UTC visibility along the runway 8 kilometres, thunderstorm ceases and nil significant weather and nil significant cloud.

** Fictitious location*

GM1 MET.TR.200(c)(1) Meteorological reports and other information

FORMAT OF METAR

The METAR code form is contained in the WMO Publication No 306, Manual on Codes, Volume I.1, Part A — Alphanumeric Codes.

AMC1 MET.TR.200(c)(2) Meteorological reports and other information

METAR — DIGITAL FORM

METAR should be disseminated, under bilateral agreements between Member States, in digital form.

GM1 MET.TR.200(c)(2) Meteorological reports and other information

METAR — DIGITAL FORM

- (a) When METAR is disseminated in digital form, this is in addition to the METAR code form.
- (b) Guidance on the information exchange model, GML and the metadata profile is provided in the Manual on the Digital Exchange of Aeronautical Meteorological Information (Doc 10003).

GM1 MET.TR.200(e)(5) Meteorological reports and other information

NOISE ABATEMENT PROCEDURES

Noise abatement procedures are those in accordance with 7.2.6 of the PANS-ATM (Doc 4444).

GM1 MET.TR.205(a)(3)(iii)(A) Reporting of meteorological elements

NOISE ABATEMENT PROCEDURES

The noise abatement procedures are those in accordance with 7.2.6 of the PANS-ATM (Doc 4444).

AMC1 MET.TR.205(b)(1) Reporting of meteorological elements

VISIBILITY — VALUES

In local routine and special reports, when instrumented systems are used for the measurement of visibility:

- (a) if the visibility is observed from more than one location along the runway, the values representative of the touchdown zone should be reported first, followed, as necessary, by the values representative of the mid-point and stop-end of the runway, and the locations for which these values are representative should be indicated; and
- (b) when there is more than one runway in use and the visibility is observed related to these runways, the available visibility values for each runway should be reported, and the runways to which the values refer should be indicated.



AMC2 MET.TR.205(b)(1) Reporting of meteorological elements
VISIBILITY

In METAR, visibility should be reported as prevailing visibility. When the visibility is not the same in different directions and:

- (a) when the lowest visibility is different from the prevailing visibility, and (1) less than 1 500 m or 2) less than 50 % of the prevailing visibility, and less than 5 000 m, the lowest visibility observed should also be reported and, when possible, its general direction in relation to the aerodrome reference point indicated by reference to one of the eight points of the compass;
- (b) if the lowest visibility is observed in more than one direction, then the most operationally significant direction should be reported; and
- (c) when the visibility is fluctuating rapidly, and the prevailing visibility cannot be determined, only the lowest visibility should be reported, with no indication of direction.

AMC1 MET.TR.205(c)(1) Reporting of meteorological elements
RUNWAY VISUAL RANGE (RVR) — THRESHOLD LIMIT

- (a) 50 m should be considered the lower limit, and 2 000 m the upper limit for RVR.
- (b) Beyond these limits, local routine and special reports and METAR should merely indicate that the RVR is less than 50 or more than 2 000 m.

AMC1 MET.TR.205(c)(3) Reporting of meteorological elements
RUNWAY VISUAL RANGE (RVR) — VALUES FOR METAR

- (a) When instrumented systems are used for the assessment of RVR, the variations in RVR during the 10-minute period immediately preceding the observation should be included if the RVR values during the 10-minute period have shown a distinct tendency, such that the mean during the first 5 minutes varies by 100 m or more from the mean during the second 5 minutes of the period.
- (b) When the variation of the RVR values shows an upward or downward tendency, this should be indicated by the abbreviation 'U' or 'D', respectively. In cases when actual fluctuations during the 10-minute period show no distinct tendency, this should be indicated using the abbreviation 'N'.
- (c) When indications of tendency are not available, no abbreviations should be included.

AMC1 MET.TR.205(c) Reporting of meteorological elements
RUNWAY VISUAL RANGE (RVR) — TOUCHDOWN ZONE VALUES

In METAR:

- (a) only the value representative of the touchdown zone should be reported and no indication of location on the runway should be included; and
- (b) where there is more than one runway available for landing, touchdown zone RVR values should be included for all such runways, up to a maximum of four, and the runways to which the values refer should be indicated.



AMC1 MET.TR.205(c)(4)(iii) Reporting of meteorological elements**RUNWAY VISUAL RANGE (RVR) — VALUES REPRESENTATION**

- (a) RVR assessments should be representative of:
 - (1) the touchdown zone and the mid-point of the runway intended for Category II instrument approach and landing operations; and
 - (2) the touchdown zone, mid-point and stop-end of the runway intended for Category III instrument approach and landing operations.
- (b) Where RVR is determined by human observers, it should be reported to the appropriate local ATS units, whenever there is a change in the value to be reported in accordance with the reporting scale.
- (c) The transmission of such reports should normally be completed within 15 seconds after the termination of the observation.

AMC1 MET.TR.205(d) Reporting of meteorological elements**PRESENT WEATHER PHENOMENA — AUTOMATIC OBSERVING SYSTEM**

In local routine and special reports and in METAR reported by an automatic observing system, the following types of present weather phenomena should be reported, using their respective abbreviations and relevant criteria, as appropriate:

- (a) Precipitation:
 - (1) drizzle (DZ);
 - (2) rain (RA); and
 - (3) snow (SN).
- (b) Obscurations (hydrometeors);
- (c) Fog (FG): reported when visibility is less than 1 000 m, except when qualified by 'MI', 'BC', 'PR' or 'VC';
- (d) Mist (BR): reported when visibility is at least 1 000 m, but not more than 5 000 m;
- (e) Obscurations (lithometeors). Haze (HZ) should be used when the obscuration consists predominantly of lithometeors and the visibility is 5 000 m or less;
- (f) Unidentified precipitation (UP); and
- (g) Temporary failure of system/sensor: the present weather should be replaced by '/' when it cannot be observed due to a temporary failure of the system/sensor.

AMC2 MET.TR.205(d) Reporting of meteorological elements**PRESENT WEATHER PHENOMENA — SEMI-AUTOMATIC OBSERVING SYSTEM**

In local routine and special reports and in METAR reported by a semi-automatic observing system, the following types of present weather phenomena should be reported, using their respective abbreviations and relevant criteria, as appropriate:

- (a) Precipitation:
 - (1) drizzle (DZ);



- (2) rain (RA);
 - (3) snow (SN);
 - (4) snow grains (SG);
 - (5) ice pellets (PL);
 - (6) hail (GR): reported when the diameter of the largest hailstones is 5 mm or more;
 - (7) small hail and/or snow pellets (GS): reported when the diameter of the largest hailstones is less than 5 mm.
- (b) Obscurations (hydrometeors):
- (1) fog (FG): reported when visibility is less than 1 000 m, except when qualified by 'MI', 'BC', 'PR' or 'VC'.
 - (2) mist (BR): reported when visibility is at least 1 000 m, but not more than 5 000 m;
- (c) Obscurations (lithometeors)
- The following should be used only when the obscuration consists predominantly of lithometeors and the visibility is 5 000 m or less, except 'SA' when qualified by 'DR' and volcanic ash:
- (1) sand (SA);
 - (2) dust (widespread) (DU);
 - (3) haze (HZ);
 - (4) smoke (FU); and
 - (5) volcanic ash (VA).
- (d) Other phenomena:
- (1) dust/sand whirls (dust devils) (PO);
 - (2) squall (SQ);
 - (3) funnel cloud (tornado or waterspout) (FC);
 - (4) duststorm (DS);
 - (5) sandstorm (SS).

AMC3 MET.TR.205(d) Reporting of meteorological elements**PRESENT WEATHER PHENOMENA — UNIDENTIFIED PRECIPITATION (UP)**

In automated local routine and special reports and in METAR, in addition to drizzle (DZ), rain (RA) and snow (SN), the abbreviation 'UP' should be used for unidentified precipitation when the type of precipitation cannot be identified by the automatic observing system.



AMC1 MET.TR.205(d)(3) Reporting of meteorological elements**PRESENT WEATHER PHENOMENA — ADDITIONAL CHARACTERISTICS**

In local routine and special reports and in METAR, only when reported by a semi-automatic observing system, the following characteristics of present weather phenomena, as necessary, should be reported using their respective abbreviations and relevant criteria, as appropriate:

- (a) Shower (SH): used to report showers. Showers observed in the vicinity of the aerodrome should be reported as 'VCSH' without qualification regarding type or intensity of precipitation.
- (b) Blowing (BL): used with types of present weather phenomena raised by the wind to a height of 6 ft (2 m) or more above the ground.
- (c) Low drifting (DR): used with types of present weather phenomena raised by the wind to less than 6 ft (2 m) above ground level.
- (d) Shallow (MI): less than 6 ft (2 m) above ground level.
- (e) Patches (BC): fog patches randomly covering the aerodrome.
- (f) Partial (PR): a substantial part of the aerodrome covered by fog while the remainder is clear.

AMC2 MET.TR.205(d)(3) Reporting of meteorological elements**PRESENT WEATHER PHENOMENA — INTENSITY**

In local routine and special reports and METAR, the relevant intensity or, as appropriate, the proximity to the aerodrome of the reported present weather phenomena should be indicated as follows:

	(local routine and special reports)	(METAR)
Light	FBL	—
Moderate	MOD	(no indication)
Heavy	HVY	+

- Used with types of present weather phenomena. Light intensity should be indicated only for precipitation.

Vicinity (VC)

- Between approximately 8 and 16 km of the aerodrome reference point and used only in METAR with present weather when not reported under AMC1 MET.TR.205(d)(3) and MET.TR.205(d)(3).

GM1 MET.TR.205(d)(3)(i) Reporting of meteorological elements**PRESENT WEATHER PHENOMENA — TS LIGHTNING DETECTION EQUIPMENT**

- (a) At aerodromes with human observers, lightning detection equipment may supplement human observations.
- (b) For aerodromes with automatic observing systems, guidance on the use of lightning detection equipment intended for thunderstorm reporting is given in the Manual on Automatic Meteorological Observing Systems at Aerodromes (Doc 9837).



AMC1 MET.TR.205(e)(1) Reporting of meteorological elements**CLOUD — HEIGHT OF CLOUD BASE**

In local routine and special reports and in METAR:

- (a) the cloud amount should be reported using the abbreviations 'FEW' (1 to 2 oktas), 'SCT' (3 to 4 oktas), 'BKN' (5 to 7 oktas) or 'OVC' (8 oktas);
- (b) cumulonimbus clouds and towering cumulus clouds should be indicated as 'CB' and 'TCU', respectively;
- (c) the vertical visibility should be reported in steps of 100 ft (30 m) up to 2 000 ft (600 m);
- (d) if there are no clouds of operational significance and no restriction on vertical visibility and the abbreviation 'CAVOK' is not appropriate, the abbreviation 'NSC' should be used;
- (e) when several layers or masses of cloud of operational significance are observed, their amount and height of cloud base should be reported in increasing order of the height of cloud base, and in accordance with the following criteria:
 - (1) the lowest layer or mass, regardless of the amount to be reported as FEW, SCT, BKN or OVC, as appropriate;
 - (2) the next layer or mass, covering more than 2/8 to be reported as SCT, BKN or OVC, as appropriate;
 - (3) the next higher layer or mass, covering more than 4/8 to be reported as BKN or OVC, as appropriate; and
 - (4) cumulonimbus and/or towering cumulus clouds, whenever observed and not reported in (1) to (3).
- (f) when the cloud base is diffuse or ragged or fluctuating rapidly, the minimum height of cloud base or cloud fragments, should be reported; and
- (g) when an individual layer (mass) of cloud is composed of cumulonimbus and towering cumulus clouds with a common cloud base, the type of cloud should be reported as cumulonimbus only.

AMC2 MET.TR.205(e)(1) Reporting of meteorological elements**CLOUD — AUTOMATIC OBSERVING SYSTEM**

When an automatic observing system is used to report local routine and special reports and METAR:

- (a) when the cloud type cannot be observed, the cloud type in each cloud group should be replaced by '///';
- (b) when no clouds are detected, it should be indicated by using the abbreviation 'NCD';
- (c) when cumulonimbus clouds or towering cumulus clouds are detected and the cloud amount and/or the height of cloud base cannot be observed, the cloud amount and/or the height of cloud base should be replaced by '///'; and
- (d) when the sky is obscured and the value of the vertical visibility cannot be determined due to a temporary failure of the system/sensor, the vertical visibility should be replaced by '///'.



AMC1 MET.TR.205(e)(3) Reporting of meteorological elements**CLOUD — HEIGHT OF CLOUD BASE**

At aerodromes where low-visibility procedures are established for approach and landing, as agreed between the meteorological station and the appropriate ATS unit, in local routine and special reports, the height of cloud base should be reported in steps of 50 ft up to and including 300 ft (90 m) and in steps of 100 ft (30 m) between 300 ft (90 m) and 10 000 ft (3 000 m), and the vertical visibility in steps of 50 ft (15 m) up to and including 300 ft (90 m) and in steps of 100 ft (30 m) between 300 ft (90 m) and 2 000 ft (600 m).

AMC1 MET.TR.210 Observing meteorological elements**HUMAN OBSERVATION**

Observers at an aerodrome should be located, in so far as is practicable, so as to provide data which is representative of the area for which the observations are required.

GM1 MET.TR.210 Observing meteorological elements**HUMAN OBSERVATION**

When a semi-automatic observing system is used, the observer should be located, in so far as is practicable, so as to supply data which is representative of the area for which the observations are required.

GM2 MET.TR.210 Observing meteorological elements**OPERATIONALLY DESIRABLE ACCURACY OF OBSERVATION**

<i>Element to be observed</i>	<i>Operationally desirable accuracy of measurement or observation*</i>
Mean surface wind	Direction: $\pm 10^\circ$ Speed: ± 0.5 m/s (1 kt) up to 5 m/s (10 kt) ± 10 % above 5 m/s (10 kt)
Variations from the mean surface wind	± 1 m/s (2 kt), in terms of longitudinal and lateral components
Visibility	± 50 m up to 600 m ± 10 % between 600 m and 1 500 m ± 20 % above 1 500 m
Runway visual range	± 10 m up to 400 m ± 25 m between 400 m and 800 m ± 10 % above 800 m
Cloud amount	± 1 okta
Cloud height	± 10 m (33 ft) up to 100 m (330 ft) ± 10 % above 100 m (330 ft)
Air temperature and dew-point temperature	$\pm 1^\circ\text{C}$
Pressure value (QNH, QFE)	± 0.5 hPa



<i>Element to be observed</i>	<i>Operationally desirable accuracy of measurement or observation*</i>
<p>* The operationally desirable accuracy is not intended as an operational requirement; it is to be understood as a goal that has been expressed by the operators.</p>	

AMC1 MET.TR.210(a) Observing meteorological elements**SURFACE WIND OBSERVATIONS**

- (a) When local routine and special reports are used for departing or arriving aircraft, the surface wind observations for these reports should be representative of conditions along the runway or the touchdown zone respectively.
- (b) For METAR, the surface wind observations should be representative of the conditions above the whole runway where there is only one runway and the whole runway complex where there is more than one runway.

GM1 MET.TR.210(a) Observing meteorological elements**SURFACE WIND OBSERVATIONS FOR TAKE-OFF AND LANDING**

Since, in practice, the surface wind cannot be measured directly on the runway, surface wind observations for take-off and landing are expected to be the best practicable indication of the winds which an aircraft will encounter during take-off and landing.

AMC1 MET.TR.210(a)(1) Observing meteorological elements**SURFACE WIND — SITING**

- (a) Reported surface wind should be representative of a wind at a height of 30 ± 3 ft (10 ± 1 m) above the ground.
- (b) Representative surface wind observations should be obtained by the use of sensors appropriately sited.
- (c) Sensors for surface wind observations for local routine and special reports should be sited to give the best practicable indication of conditions along the runway and touchdown zones.
- (d) At aerodromes where topography or prevalent weather conditions cause significant differences in surface wind at various sections of the runway, additional sensors should be provided.

GM1 MET.TR.210(a)(1) Observing meteorological elements**SURFACE WIND — SITING**

Specifications concerning the siting of equipment and installations on operational areas, aiming at reducing the hazard to aircraft to a minimum, are contained in the EASA CS ADR-DSN.T.915 'Siting of equipment and installations on operational areas'.

AMC1 MET.TR.210(a)(2) Observing meteorological elements**SURFACE WIND — DISPLAY**

The mean values of, and significant variations in, the surface wind direction and speed for each sensor should be derived and displayed by automated equipment.



AMC1 MET.TR.210(a)(3) Observing meteorological elements**SURFACE WIND — AVERAGING**

The averaging period for measuring variations from the mean wind speed (gusts) reported in accordance with MET.TR.205(a)(3)(iii) should be 3 seconds for local routine and special reports and for METAR, and for wind displays used for depicting variations from the mean wind speed (gusts) in ATS units.

GM1 MET.TR.210(a)(3)(ii) Observing meteorological elements**SURFACE WIND — AVERAGING — MARKED DISCONTINUITY**

A marked discontinuity occurs when there is an abrupt and sustained change in wind direction of 30° or more, with a wind speed of 10 kt (5 m/s) before or after the change, or a change in wind speed of 10 kt (5 m/s) or more, lasting at least 2 minutes.

AMC1 MET.TR.210(b)(1) Observing meteorological elements**VISIBILITY — GENERAL**

- (a) When instrumented systems are used for the measurement of visibility, their output should be updated at least every 60 seconds to permit provision of current representative values.
- (b) When instrumented systems are used for the measurement of visibility, it should be measured at a height of approximately 7.5 ft (2.5 m) above the runway.
- (c) When local routine and special reports are used for departing aircraft, the visibility observations for these reports should be representative of the conditions along the runway.
- (d) When local routine and special reports are used for arriving aircraft, the visibility observations for these reports should be representative of the touchdown zone of the runway.
- (e) For METAR, the visibility observations should be representative of the aerodrome.

AMC1 MET.TR.210(b)(2) Observing meteorological elements**VISIBILITY — SITING**

- (a) When instrumented systems are used for the measurement of visibility, representative visibility observations should be obtained by the use of sensors appropriately sited.
- (b) Sensors for visibility observations for local routine and special reports should be sited to give the best practicable indications of visibility along the runway and touchdown zone.

AMC1 MET.TR.210(b)(4) Observing meteorological elements**VISIBILITY — AVERAGING**

The averaging period for visibility should be 1 minute for local routine and special reports and for visibility displays in ATS units.

GM1 MET.TR.210(b)(4)(ii) Observing meteorological elements**VISIBILITY — AVERAGING — MARKED DISCONTINUITY**

A marked discontinuity occurs when there is an abrupt and sustained change in visibility, lasting at least 2 minutes, which reaches or passes through one or more of the following values: 800, 1 500 or 3 000 or 5 000 m.



AMC1 MET.TR.210(c) Observing meteorological elements**RUNWAY VISUAL RANGE (RVR) — ASSESSMENT**

RVR should be assessed:

- (a) at a height of approximately 7.5 ft (2.5 m) above the runway for instrument systems or at a height of approximately 15 ft (5 m) above the runway by a human observer;
- (b) at a lateral distance from the runway centre line of not more than 120 m.

GM1 MET.TR.210(c) Observing meteorological elements**RUNWAY VISUAL RANGE (RVR) — ASSESSMENT**

A detailed understanding of the assessment of RVR is described in ICAO Doc 9328 Manual on 'RVR — Observing and reporting practices'.

AMC1 MET.TR.210(c)(1) Observing meteorological elements**RUNWAY VISUAL RANGE (RVR) — SITING**

- (a) The site for observations to be representative of the touchdown zone should be located about 300 m along the runway from the threshold.
- (b) The site for observations to be representative of the mid-point and stop-end of the runway should be located at a distance of 1 000 to 1 500 m along the runway from the threshold and at a distance of about 300 m from the other end of the runway.
- (c) The exact position of these sites and, if necessary, additional sites should be decided after considering aeronautical, meteorological and climatological factors such as long runways, swamps and other fog-prone areas.

AMC1 MET.TR.210(c)(2) Observing meteorological elements**RUNWAY VISUAL RANGE (RVR) — RUNWAY LIGHT INTENSITY**

- (a) Instrument systems should consider the runway light intensity.
- (b) When instrumented systems are used for the assessment of RVR, computations should be made separately for each available runway.
- (c) RVR should not be computed for a light intensity of 3 % or less of the maximum light intensity available on a runway.
- (d) For local routine and special reports, the light intensity to be used for the computation should be:
 - (1) for a runway with the lights switched on, the light intensity actually in use on that runway; and
 - (2) for a runway with lights switched off (or at the lowest setting pending the resumption of operations), the optimum light intensity that would be appropriate for operational use in the prevailing conditions.
- (e) In METAR, the RVR should be based on the maximum light intensity available on the runway.



GM1 MET.TR.210(c)(2) Observing meteorological elements**RUNWAY VISUAL RANGE (RVR) — USE OF INSTRUMENTED SYSTEMS**

- (a) Since accuracy can vary from one instrument design to another, performance characteristics are to be checked before selecting an instrument for assessing the runway visual range.
- (b) The calibration of a forward-scatter meter has to be traceable and verifiable to a transmissometer standard, whose accuracy has been verified over the intended operational range.
- (c) Guidance on the use of transmissometers and forward-scatter meters in instrumented Runway Visual Range systems is given in the Manual of Runway Visual Range Observing and Reporting Practices (Doc 9328).

GM1 MET.TR.210(c)(4)(ii)(B) Observing meteorological elements**RUNWAY VISUAL RANGE (RVR) — AVERAGING**

A marked discontinuity occurs when there is an abrupt and sustained change in RVR, lasting at least 2 minutes, which reaches or passes through the values 800, 550, 300 and 175 m.

AMC1 MET.TR.210(d)(1) Observing meteorological elements**PRESENT WEATHER — GENERAL**

- (a) For local routine and special reports, the present weather information should be representative of the conditions at the aerodrome.
- (b) For METAR, the present weather information should be representative of the conditions at the aerodrome and, for certain specified present weather phenomena, in its vicinity.

AMC1 MET.TR.210(d)(2) Observing meteorological elements**PRESENT WEATHER — SITING**

When instrumented systems are used for observing present weather phenomena listed under AMC2 MET.TR.205(d), MET.TR.205(d)(3) and AMC1 MET.TR.205(d)(3), representative information should be obtained by the use of sensors appropriately sited.

AMC1 MET.TR.210(e) Observing meteorological elements**CLOUDS — GENERAL**

- (a) Cloud observations for local routine and special reports should be representative of the runway threshold(s) in use.
- (b) Cloud observations for METAR should be representative of the aerodrome and its vicinity.

AMC1 MET.TR.210(e)(2) Observing meteorological elements**CLOUDS — SITING**

- (a) When instrumented systems are used for the measurement of the cloud amount and the height of cloud base, representative observations should be obtained by the use of sensors appropriately sited.
- (b) For local routine and special reports, in the case of aerodromes with precision approach runways, sensors for the cloud amount and the height of cloud base should be sited to give the best practicable indications of the cloud amount and the height of cloud base and at the middle marker site of the



instrument landing system or, at aerodromes where a middle marker beacon is not used, at a distance of 3 000 to 4 000 ft (900 to 1 200 m) from the landing threshold at the approach end of the runway.

GM1 MET.TR.210(e)(2) Observing meteorological elements**CLOUDS — SITING**

Specifications concerning the middle marker site of an instrument landing system are given in Annex 10, Volume I, Chapter 3, and in Attachment C, Table C-5.

AMC1 MET.TR.210(f) Observing meteorological elements**AIR TEMPERATURE AND DEW-POINT TEMPERATURE — GENERAL**

Observations of air temperature and dew-point temperature for local routine and special reports and METAR should be representative of the whole runway complex.

AMC1 MET.TR.210(g)(3) Observing meteorological elements**ATMOSPHERIC PRESSURE — REFERENCE LEVEL**

- (a) The reference level for the computation of QFE should be the aerodrome elevation.
- (b) For non-precision approach runways, whose thresholds are 7 ft (2 m) or more below the aerodrome elevation, and for precision approach runways, the QFE, if required, should refer to the relevant threshold elevation.

Chapter 2 — Technical requirements for aerodrome meteorological offices**AMC1 MET.TR.215(a) Forecasts and other information****MEANS BY WHICH METEOROLOGICAL INFORMATION CAN BE PROVIDED**

Meteorological information to operators and flight crew members should be provided by means of one or more of the following:

- (a) written or printed material, including specified charts and forms;
- (b) data in digital form;
- (c) briefing;
- (d) consultation;
- (e) display; or
- (f) an automated pre-flight information system providing self-briefing and flight documentation facilities while retaining access by operators and aircrew members to consultation, as necessary, with the aerodrome meteorological office.

AMC2 MET.TR.215(a) Forecasts and other information**SPECIFIC INFORMATION FOR HELICOPTER OPERATIONS**

- (a) Meteorological information for pre-flight planning and in-flight replanning by operators of helicopters flying to offshore structures should include data covering the layers from sea level to flight level 100.



- (b) Particular mention should be made of the expected surface visibility, the amount, type, where available, base and tops of cloud below flight level 100, sea state and sea-surface temperature, mean sea-level pressure, and the occurrence and expected occurrence of turbulence and icing.

AMC1 MET.TR.215(a) Forecasts and other information**AUTOMATED PRE-FLIGHT INFORMATION SYSTEMS**

Automated pre-flight information systems for the supply of meteorological information for self-briefing, pre-flight planning and flight documentation should:

- (a) provide for the continuous and timely updating of the system database and monitoring of the validity and integrity of the meteorological information stored;
- (b) permit access to the system by operators and flight crew members and also by other aeronautical users concerned through suitable telecommunications means;
- (c) use access and interrogation procedures based on abbreviated plain language and, as appropriate, ICAO location indicators, and aeronautical meteorological code data-type designators prescribed by WMO, or based on a menu-driven user interface, or other appropriate mechanisms as agreed between the meteorological authority and the operators concerned; and
- (d) provide for rapid response to a user request for information.

GM1 MET.TR.215(a) Forecasts and other information**AUTOMATED PRE-FLIGHT INFORMATION SYSTEMS**

- (a) ICAO abbreviations and codes and location indicators are given respectively in the Procedures for Air Navigation Services — ICAO Abbreviations and Codes (PANS-ABC, Doc 8400) and Location Indicators (Doc 7910).
- (b) Aeronautical meteorological code data-type designators are given in the WMO Publication No 386, Manual on the Global Telecommunication System.

GM1 MET.TR.215(b) Forecasts and other information**METEOROLOGICAL INFORMATION TO RESCUE COORDINATION CENTRES**

- (a) The elements which are not distributed routinely are:
 - (1) state of ground, and in particular any snow cover or flooding;
 - (2) sea-surface temperature, state of the sea, ice cover (if any) and ocean currents, if relevant to the search area; and
 - (3) sea-level pressure data.
- (b) On request from the rescue coordination centre, the designated aerodrome meteorological office or meteorological watch office should arrange to obtain details of the flight documentation which was supplied to the missing aircraft, together with any amendments to the forecast which were transmitted to the aircraft in flight.



GM2 MET.TR.215(b) Forecasts and other information**METEOROLOGICAL INFORMATION TO RESCUE COORDINATION CENTRES**

Information to be supplied to rescue coordination centres includes:

- (a) significant en-route weather phenomena;
- (b) cloud amount and type, particularly cumulonimbus; height indications of bases and tops;
- (c) visibility and phenomena reducing visibility;
- (d) surface wind and upper wind;
- (e) state of ground, in particular, any snow cover or flooding;
- (f) sea-surface temperature, state of the sea, ice cover if any and ocean currents, if relevant to the search area; and
- (g) sea-level pressure data.

AMC1 MET.TR.215(d)(5) Forecasts and other information**HEIGHT INDICATIONS**

All references to en-route meteorological conditions, such as height indications of upper winds, turbulence or bases and tops of clouds, should be expressed in flight levels.

GM1 MET.TR.215(d)(5) Forecasts and other information**HEIGHT INDICATIONS**

Height indications referred to en-route meteorological conditions may also be expressed in pressure, altitude or, for low-level flights, in height above ground level.

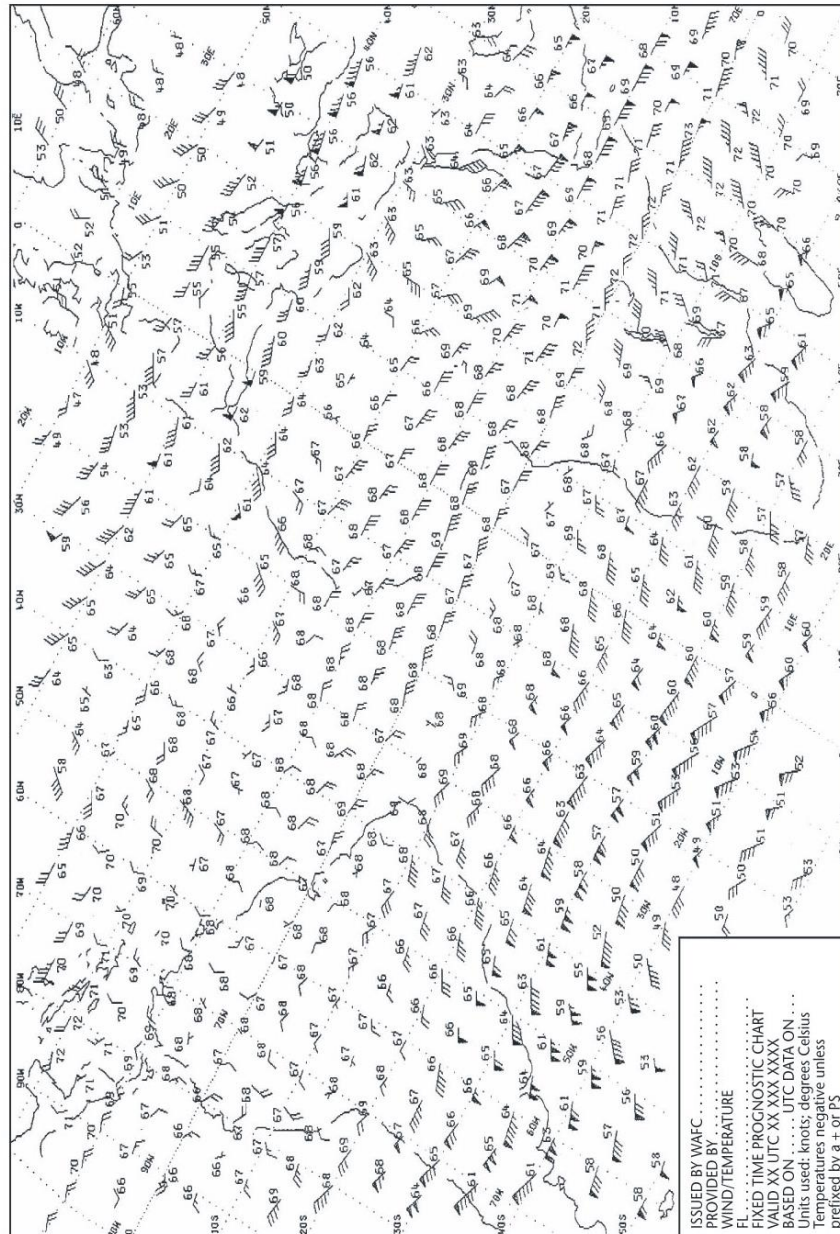
AMC1 MET.TR.215(e) Forecasts and other information**FLIGHT DOCUMENTATION**

- (a) Where the forecasts are supplied in chart form, flight documentation for low-level flights, including those in accordance with the visual flight rules, operating up to flight level 100 or up to flight level 150 in mountainous areas or higher, where necessary, should contain the following as appropriate to the flight:
 - (1) information from relevant SIGMET and AIRMET messages;
 - (2) upper wind and upper-air temperature charts; and
 - (3) significant weather charts.
- (b) Where the forecasts are not supplied in chart form, flight documentation for low-level flights, including those in accordance with the visual flight rules, operating up to flight level 100 or up to flight level 150 in mountainous areas or higher, where necessary, should contain the following information as appropriate to the flight: SIGMET and AIRMET information.

AMC1 MET.TR.215(e)(1) & (2) Forecasts and other information**CHARTS FORM**

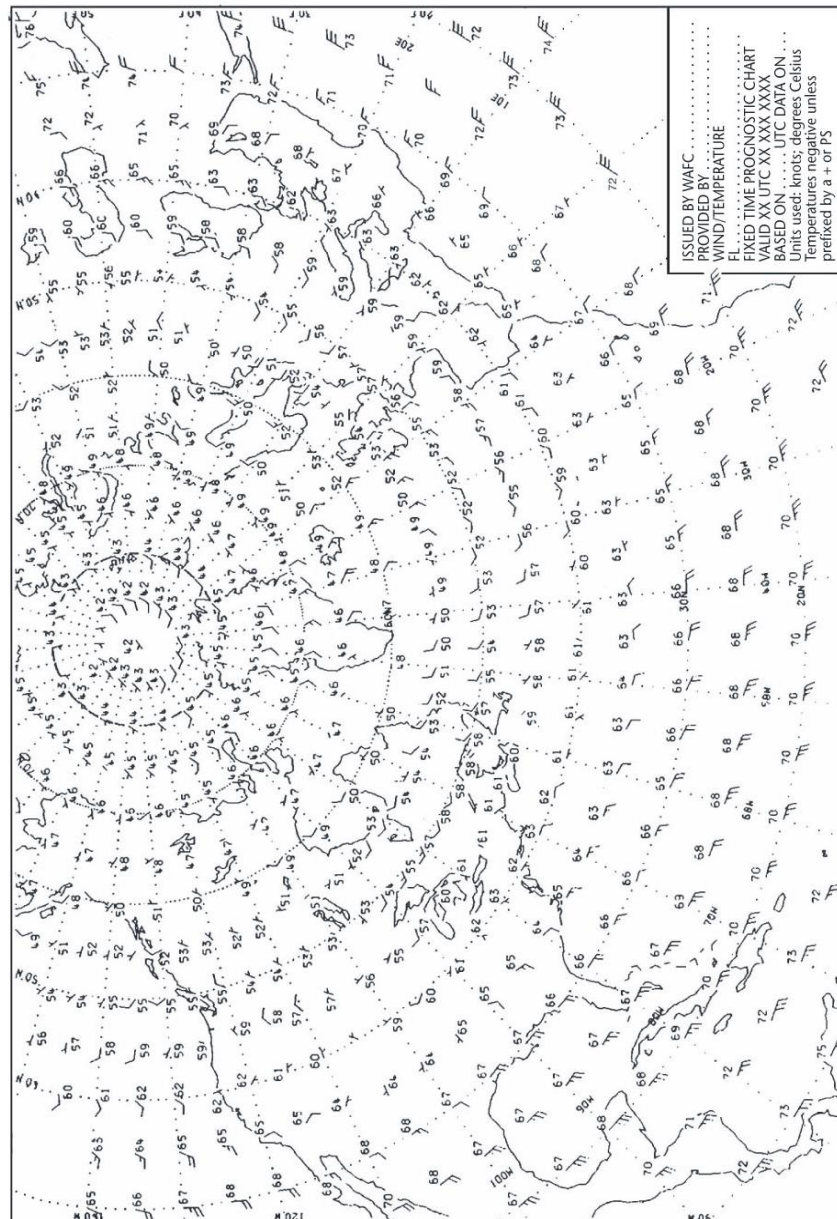
When the flight documentation related to forecasts of upper wind and upper-air temperature and SIGWX phenomena is presented in the form of charts, it should be in accordance with the below model charts.



**UPPER WIND AND TEMPERATURE CHART FOR STANDARD ISOBARIC SURFACE
(MODEL IS)****Example 1. Arrows, feathers and pennants (Mercator projection)**

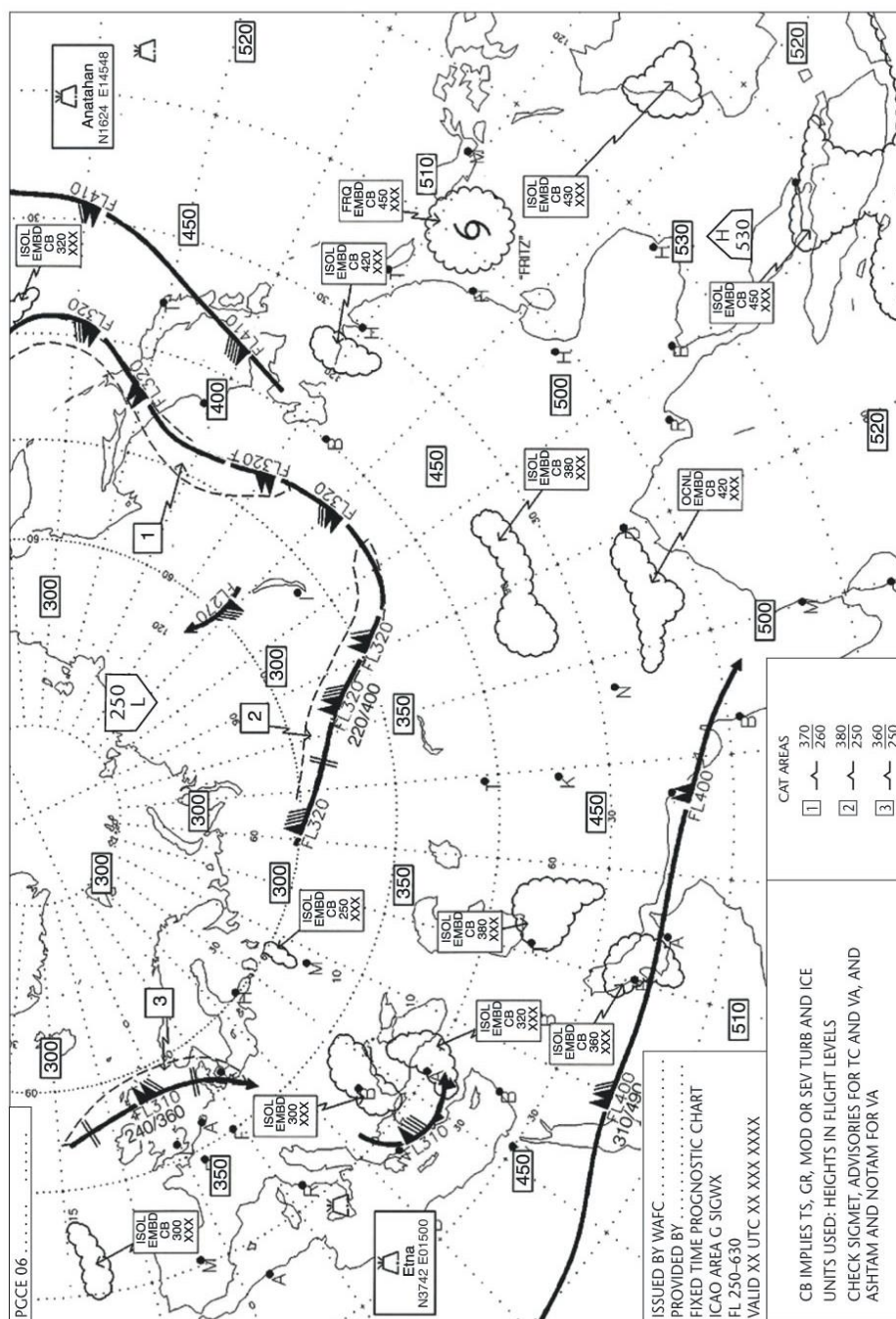
UPPER WIND AND TEMPERATURE CHART FOR STANDARD ISOBARIC SURFACE MODEL IS

Example 2. Arrows, feathers and pennants (Polar stereographic projection)

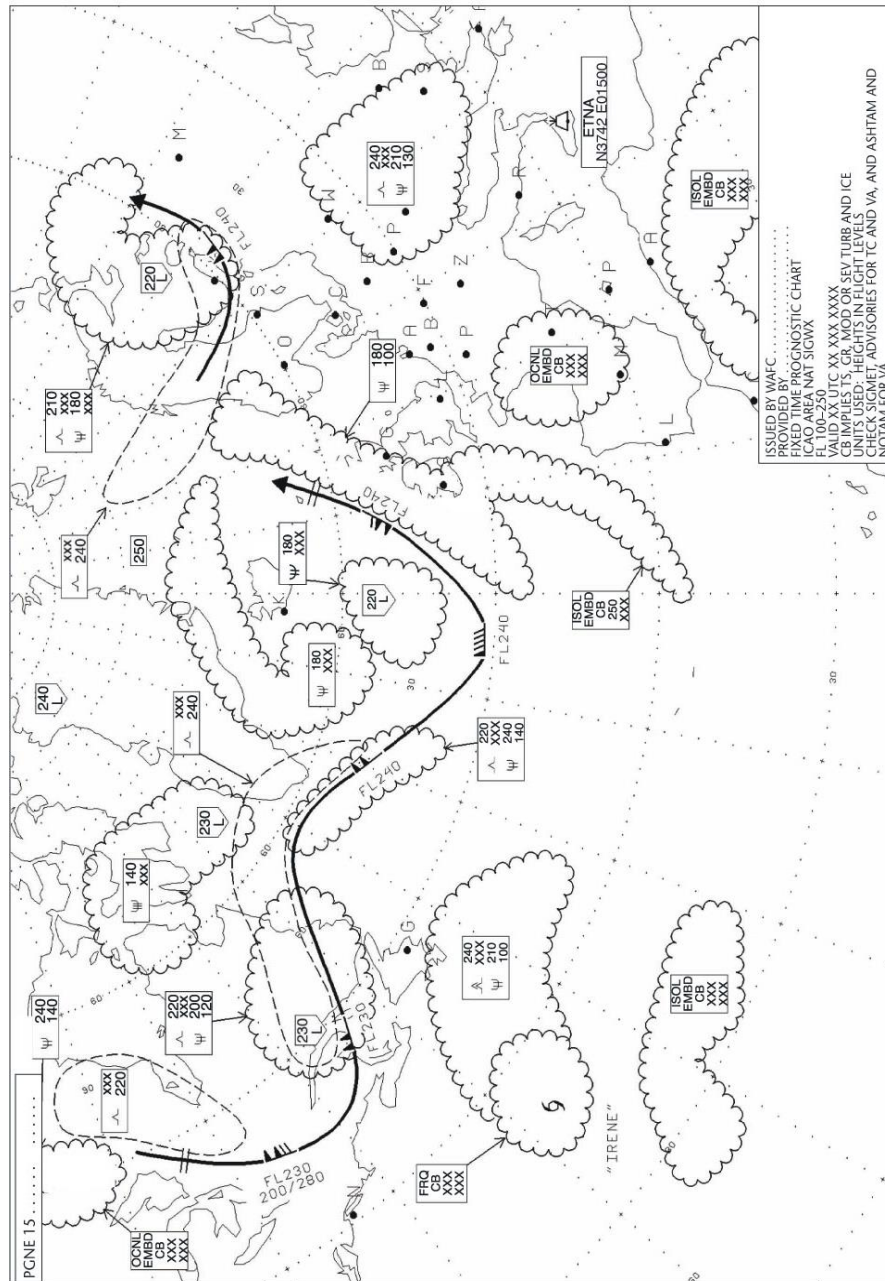


MODEL SWH

Example. Polar stereographic projection (showing the jet stream vertical extent)

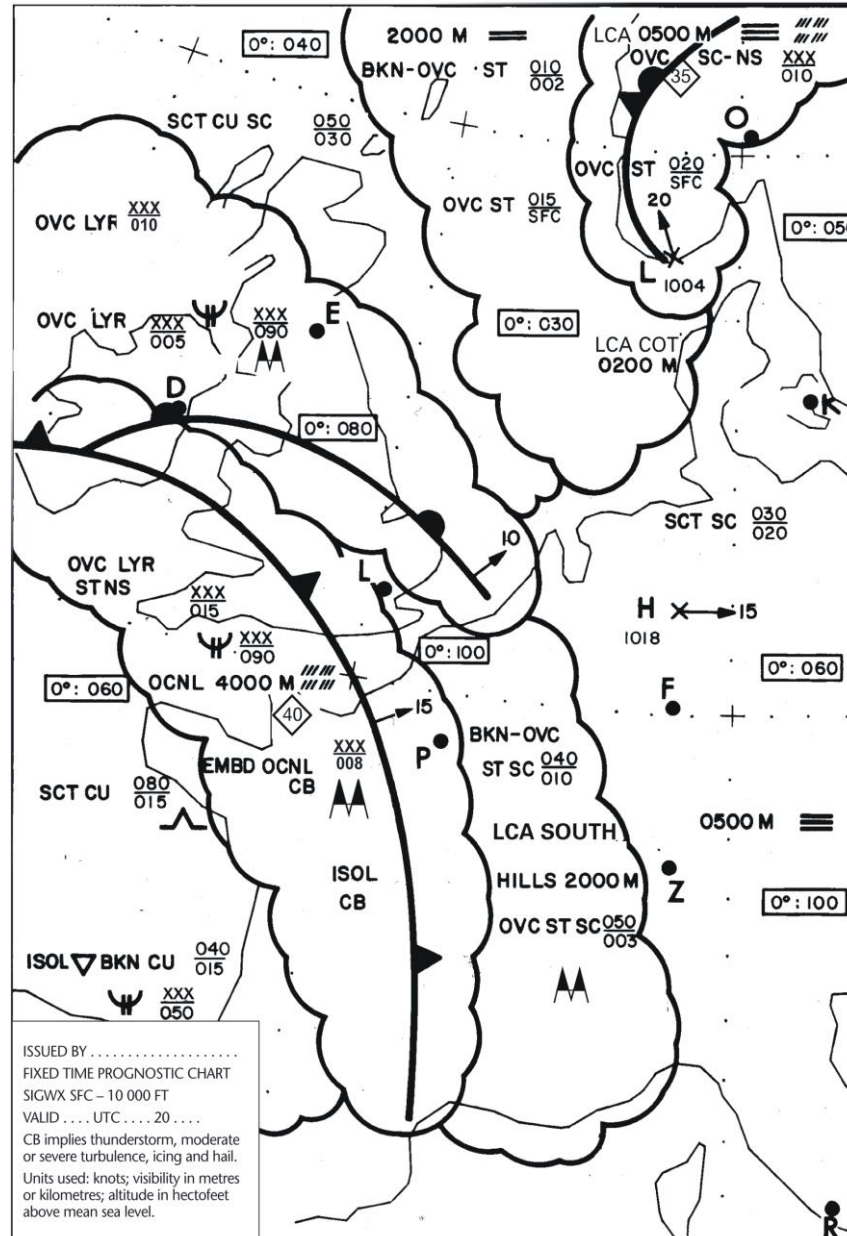


SIGNIFICANT WEATHER CHART (MEDIUM LEVEL) MODEL SWM



SIGNIFICANT WEATHER CHART (LOW LEVEL) MODEL SWL

Example 1



SIGNIFICANT WEATHER CHART (LOW LEVEL)
MODEL SWL
Example 2

FIXED TIME PROGNOSTIC CHART		VALID	UTC	20	BASED ON	UTC DATA ON	0°C
	VARIANT		VIS	SIGNIFICANT WEATHER	CLOUD, TURBULENCE, ICING		0°C
	AREA A					— SCT CU 025/080	50
	ISOL					— BKN CU 015/XXX Ψ 050/XXX	
	AREA B					— OVC LVR ST NS 015/XXX Ψ 050/XXX	50
	OCNL		4000	HEAVY RAIN		EMBD CB 008/XXX AA	
	ISOL		1000	THUNDERSTORM			
	AREA C					BKN to OVC ST SC 010/040	100
	LCA SOUTH COT HILLS		2000	DRIZZLE		OVC ST SC 003/050 AA	
	AREA D					OVC LVR SC NS 010/XXX	90
	LCA NORTH		4500	RAIN		OVC LVR ST NS 005/XXX Ψ 090/XXX AA	
	AREA E		0500	FOG		SCT SC 020/030	40
	LCA LAND						
	AREA F		2000	MIST		BKN to OVC ST 002/010	30
	LCA COT HILLS		0200	FOG		OVC ST SFC/015	
	AREA G		4500	RAIN		— OVC CU SC NS 010/XXX Ψ 030/XXX	30
	LCA NORTH		0500	FOG		OVC ST SFC/010	
	AREA J					SCT CU SC 030/050	40
	LCA HILLS NORTH					— BLW 070	
REMARKS: EAST TO NE GALES SHETLAND TO HEBRIDES - SEVERE MOUNTAIN WAVES NW SCOTLAND - FOG PATCHES EAST ANGLIA - WDSRPR FOG OVER NORTH FRANCE, BELGIUM AND THE NETHERLANDS							



AMC2 MET.TR.215(e)(1) & (2) Forecasts and other information
FORMAT OF FLIGHT DOCUMENTATION

The location indicators and the abbreviations used should be explained in the flight documentation.

AMC1 MET.TR.215(f) Forecasts and other information
CHARACTERISTICS OF CHARTS

Charts included in flight documentation should have a high standard of clarity and legibility and should have the following physical characteristics:

- (a) For convenience, the largest size of charts should be about 42 × 30 cm (standard A3 size) and the smallest size should be about 21 × 30 cm (standard A4 size). The choice between these sizes should depend on the route lengths and the amount of detail that needs to be given in the charts as agreed between the meteorological authorities and the users;
- (b) Major geographical features, such as coastlines, major rivers and lakes, should be depicted in a way that makes them easily recognisable;
- (c) For charts prepared by computer, meteorological data should take preference over basic chart information, the former cancelling the latter wherever they overlap;
- (d) Major aerodromes should be shown as a dot and identified by the first letter of the name of the city the aerodrome serves as given in Table AOP of the EUR air navigation plan;
- (e) A geographical grid should be shown with meridians and parallels represented by dotted lines at each 10°-latitude and longitude; dots should be spaced one degree apart;
- (f) Latitude and longitude values should be indicated at various points throughout the charts; and
- (g) Labels on the charts for flight documentation should be clear and simple and should present the name of the world area forecast centre or, for non-WAFS products, the originating centre, the type of chart, date and valid time and, if necessary, the types of units used in an unambiguous way.

AMC2 MET.TR.215(f) Forecasts and other information
SET OF CHARTS TO BE PROVIDED

- (a) The minimum number of charts for flights between flight level 250 and flight level 630 should include a high-level SIGWX chart (flight level 250 to flight level 630) and a forecast 250 hPa wind and temperature chart.
- (b) The actual charts provided for pre-flight and in-flight planning and for flight documentation should be agreed between the meteorological providers and the users concerned.

GM1 MET.TR.215(f) Forecasts and other information
CHARTS — SHORT-HAUL FLIGHTS

For short-haul flights, charts should be prepared covering limited areas at a scale of $1:15 \times 10^6$ as required.



GM1 MET.TR.215(g) Forecasts and other information

CONCATENATED ROUTE-SPECIFIC FORECASTS

- (a) The flight documentation related to concatenated route-specific upper wind and upper-air temperature forecasts should be provided when agreed between the meteorological service provider and the operator concerned.
- (b) Guidance on the design, formulation and use of concatenated charts is given in the Manual of Aeronautical Meteorological Practice (Doc 8896).

AMC1 MET.TR.215(i) Forecasts and other information

CLIMATOLOGICAL INFORMATION — PERIOD OF OBSERVATION

Aeronautical climatological information should be based on observations made over a period of at least five years. The period should be indicated in the information supplied.

AMC2 MET.TR.215(i) Forecasts and other information

CLIMATOLOGICAL DATA RELATED TO SITES FOR NEW AERODROMES

Climatological data related to sites for new aerodromes and to additional runways at existing aerodromes should be collected starting as early as possible before the commissioning of those aerodromes or runways.

AMC3 MET.TR.215(i) Forecasts and other information

PURPOSE OF CLIMATOLOGICAL SUMMARIES

Aerodrome climatological summaries should follow the procedures prescribed by the World Meteorological Organization and should be made available in a form to meet a specific user request.

AMC4 MET.TR.215(i) Forecasts and other information

CLIMATOLOGICAL TABLE — GENERAL

An aerodrome climatological table should indicate:

- (a) mean values and variations therefrom, including maximum and minimum values, of meteorological elements; and/or
- (b) the frequency of occurrence of present weather phenomena affecting flight operations at the aerodrome; and/or
- (c) the frequency of occurrence of specified values of one, or of a combination of two or more, elements.

AMC5 MET.TR.215(i) Forecasts and other information

CLIMATOLOGICAL TABLE — GENERAL

Aerodrome climatological tables should include information required for the preparation of aerodrome climatological summaries.

AMC6 MET.TR.215(i) Forecasts and other information

CLIMATOLOGICAL SUMMARIES — GENERAL

Aerodrome climatological summaries should cover:

- (a) frequencies of the occurrence of runway visual range/visibility and/or height of base of the lowest cloud layer of BKN or OVC extent below specified values at specified times;



- (b) frequencies of visibility below specified values at specified times;
- (c) frequencies of the height of base of the lowest cloud layer of BKN or OVC extent below specified values at specified times;
- (d) frequencies of occurrence of concurrent wind direction and speed within specified ranges;
- (e) frequencies of surface temperature in specified ranges of 5°C at specified times; and
- (f) mean values and variations therefrom, including maximum and minimum values of meteorological elements required for operational planning purposes, including take-off performance calculations.

GM1 MET.TR.215(i) Forecasts and other information**CLIMATOLOGICAL INFORMATION — GENERAL**

In cases where it is impracticable to meet the requirements for aeronautical climatological information on a national basis, the collection, processing and storage of observational data may be effected through computer facilities available for international use, and the responsibility for the preparation of the required aeronautical climatological information may be delegated by agreement between the competent authorities concerned.

GM2 MET.TR.215(i) Forecasts and other information**MODELS OF CLIMATOLOGICAL SUMMARIES**

Models of climatological summaries related to (a) to (e) of AMC6 MET.TR.215(i) are given in the WMO Publication No 49, Technical Regulations, Volume II, C.3.2.

GM3 MET.TR.215(i) Forecasts and other information**CLIMATOLOGICAL DATA REQUIRED FOR AERODROME PLANNING PURPOSES**

Climatological data required for aerodrome planning purposes is set out in GM1 ADR.DSN.B.025 'Data to be used'.

GM1 MET.TR.220 Aerodrome forecasts**EXAMPLE OF TAF**

TAF for YUDO (Donlon/International)*:

TAF YUDO 160000Z 1606/1624 13005MPS 9000 BKN020 BECMG 1606/1608 SCT015CB BKN020 TEMPO 1608/1612 17006G12MPS 1000 TSRA SCT010CB BKN020 FM161230 15004MPS 9999 BKN020

Meaning of the forecast:

TAF for Donlon/International* issued on the 16th of the month at 00.00 UTC valid from 06.00 UTC to 24.00 UTC on the 16th of the month; surface wind direction 130 degrees; wind speed 5 knots; visibility 9 kilometres, broken cloud at 2 000 feet; becoming between 06.00 UTC and 08.00 UTC on the 16th of the month, broken cloud at 800 feet; temporarily between 08.00 UTC and 12.00 UTC on the 16th of the month surface wind direction 170 degrees; wind speed 15 knots gusting to 25 knots; visibility 1 000 metres in a thunderstorm with moderate rain, scattered cumulonimbus cloud at 300 metres and broken cloud at 2 000 feet; from 12.30 UTC on the 16th of the month, surface wind direction 150 degrees; wind speed 4 knots; visibility 10 kilometres or more; and broken cloud at 2 000 feet.

* *Fictitious location*



GM2 MET.TR.220 Aerodrome forecasts**EXAMPLE OF CANCELLATION OF TAF**

Cancellation of TAF for YUDO (Donlon/International):*

TAF AMD YUDO 161500Z 1606/1624 CNL

Meaning of the forecast:

Amended TAF for Donlon/International* issued on the 16th of the month at 15.00 UTC cancelling the previously issued TAF valid from 06.00 UTC to 24.00 UTC on the 16th of the month.

* *Fictitious location*

GM3 MET.TR.220 Aerodrome forecasts**ACCURACY OF TAF**

Guidance on operationally desirable accuracy of TAF is given below:

<i>Element to be forecast</i>	<i>Operationally desirable accuracy of forecasts</i>	<i>Minimum percentage of cases within range</i>
TAF		
Wind direction	± 20°	80 % of cases
Wind speed	± 2.5 m/s (5 kt)	80 % of cases
Visibility	± 200 m up to 800 m ± 30 % between 800 m and 10 km	80 % of cases
Precipitation	Occurrence or non-occurrence	80 % of cases
Cloud amount	One category below 450 m (1 500 ft) Occurrence or non-occurrence of BKN or OVC between 450 m (1 500 ft) and 3 000 m (10 000 ft)	70 % of cases
Cloud height	± 30 m (100 ft) up to 300 m (1 000 ft) ± 30 % between 300 m (1 000 ft) and 3 000 m (10 000 ft)	70 % of cases
Air temperature	± 1°C	70 % of cases

GM1 MET.TR.220(a)(8) Aerodrome forecasts**VISIBILITY**

The visibility included in TAF refers to the forecast prevailing visibility.

GM1 MET.TR.220(b) Aerodrome forecasts**TAF CODE FORM**

The TAF code form is contained in the WMO Publication No 306, Manual on Codes, Volume I.1, Part A — Alphanumeric Codes.



AMC1 MET.TR.220(c) Aerodrome forecasts**PERIOD OF VALIDITY**

- (a) The periods of validity for 9-hour TAF should commence at 00, 03, 06, 09, 12, 15, 18 and 21 UTC and for 24- and 30-hour TAF at 00, 06, 12 and 18 UTC or 03, 09, 15, and 21 UTC.
- (b) The 24- and 30-hour TAF periods of validity should be determined based on the types of operations, as agreed between the aerodrome meteorological office and the operators concerned.

At aerodromes with limited hours of operation, the beginning of the period of validity of a TAF should commence at least 1 hour prior to the aerodrome resuming operations, or more as agreed between the aerodrome meteorological office and the operators concerned, to meet planning requirements for flights that arrive at the aerodromes as soon as it is opened for use.

- (c) Routine TAF valid for 9 hours should be issued every 3 hours, and those valid for 24 or 30 hours should be issued every 6 hours.

GM1 MET.TR.220(d) Aerodrome forecasts**FORMAT OF TAF**

Guidance on the information exchange model, XML/GML and the metadata profile is provided in the Manual on the Digital Exchange of Aeronautical Meteorological Information (Doc 10003).

AMC1 MET.TR.220(f) Aerodrome forecasts**CRITERIA USED FOR THE INCLUSION OF CHANGE GROUPS IN TAF**

The criteria used for the inclusion of change groups in TAF or amendments to TAF should be based on the following:

- (a) when the mean surface wind direction is forecasted to change by 60° or more, the mean speed before and/or after the change being 10 kt (5 m/s) or more;
- (b) when the mean surface wind speed is forecasted to change by 10 kt (5 m/s) or more;
- (c) when the variation from the mean surface wind speed (gusts) is forecasted to change by 10 kt (5 m/s) or more, the mean speed before and/or after the change being 15 kt (7.5 m/s) or more;
- (d) when the surface wind is forecasted to change through values of operational significance;
- (e) when the visibility is forecasted to improve and change to or pass through one or more of the following values, or when the visibility is forecasted to deteriorate and pass through one or more of the following values:
 - (1) 150, 350, 600, 800, 1 500 or 3 000 m; and
 - (2) 5 000 m in cases where significant numbers of flights are operated in accordance with the visual flight rules;
- (f) when any of the following weather phenomena, or combinations thereof, are forecasted to begin or end:
 - (1) low drifting dust, sand or snow;
 - (2) blowing dust, sand or snow;
 - (3) squall; and



- (4) funnel cloud (tornado or waterspout);
- (g) when the height of base of the lowest layer or mass of cloud of BKN or OVC extent is forecasted to lift and change to or pass through one or more of the following values, or when the height of the lowest layer or mass of cloud of BKN or OVC extent is forecasted to lower and pass through one or more of the following values:
- (1) 100, 200, 500 or 1 000 ft (30, 60, 150 or 300 m); or
 - (2) 1 500 ft (450 m) in cases where significant numbers of flights are operated in accordance with the visual flight rules;
- (h) when the amount of a layer or mass of cloud below 1 500 ft (450 m) is forecasted to change:
- (1) from NSC, FEW or SCT to BKN or OVC; or
 - (2) from BKN or OVC to NSC, FEW or SCT;
- (i) when the vertical visibility is forecasted to improve and change to or pass through one or more of the following values, or when the vertical visibility is forecasted to deteriorate and pass through one or more of the following values: 100, 200, 500 or 1 000 ft (30, 60, 150 or 300 m); and
- (j) any other criteria based on local aerodrome operating minima, as agreed between the aerodrome meteorological office and the operators.

GM1 MET.TR.220(f)(1) Aerodrome forecasts**USE OF CHANGE AND TIME INDICATORS IN TAF**

Guidance on the use of change and time indicators in TAF is given below:

Change or time indicator		Time period	Meaning
FM		ndndnhnhnmnm	Used to indicate a significant change in most weather elements occurring at ndnd day, nhnh hours and nmnm minutes (UTC); all the elements given before 'FM' are to be included following 'FM' (i.e. they are all superseded by those following the abbreviation).
BECMG		nd1nd1nh1nh1/nd2nd2nh2nh2	The change is forecast to commence at nd1nd1 day and nh1nh1 hours (UTC) and be completed by nd2nd2 day and nh2nh2 hours (UTC); only those elements for which a change is forecast are to be given following 'BECMG'; the time period nd1nd1nh1nh1/nd2nd2nh2nh2 should normally be less than 2 hours and in any case should not exceed 4 hours.
TEMPO		nd1nd1nh1nh1/nd2nd2nh2nh2	Temporary fluctuations are forecast to



			commence at nd1nd1 day and nh1nh1 hours (UTC) and cease by nd2nd2 day and nh2nh2 hours (UTC); only those elements for which fluctuations are forecast are to be given following 'TEMPO'; temporary fluctuations should not last more than one hour in each instance, and in the aggregate, cover less than half of the period nd1nd1nh1nh1/nd2nd2nh2nh2.	
PROBnn	—	nd1nd1nh1nh1/nd2nd2nh2nh2	probability of occurrence (in %) of an alternative value of a forecast element or elements;	—
	TEMPO	nd1nd1nh1nh1/nd2nd2nh2nh2	nn = 30 or nn = 40 only; to be placed after the element(s) concerned	probability of occurrence of temporary fluctuations

AMC1 MET.TR.220(g) Aerodrome forecasts

USE OF PROBABILITY INDICATORS

The number of change and probability groups should be kept to a minimum.

GM1 MET.TR.220(g) Aerodrome forecasts

USE OF PROBABILITY INDICATORS

- (a) A probability of an alternative value or change of less than 30 % should not be considered sufficiently significant to be indicated.
- (b) A probability of an alternative value or change of 50 % or more should not be considered a probability but, instead, should be indicated, as necessary, by use of the change indicators 'BECMG' or 'TEMPO' or by subdivision of the validity period using the abbreviation 'FM'. The probability group should neither be used to qualify the change indicator 'BECMG' nor the time indicator 'FM'.

AMC1 MET.TR.225(c)(1)(iii) Forecasts for landing

THRESHOLD VALUES

The threshold values should be established by the aerodrome meteorological office in consultation with the appropriate ATS units and operators concerned, taking into account changes in the wind which would:

- (a) require a change in runway(s) in use; and
- (b) indicate that the runway tailwind and crosswind components will change through values representing the main operating limits for typical aircraft operating at the aerodrome.



AMC1 MET.TR.225(c)(7)(ii) Forecasts for landing**USE OF CHANGE GROUPS — BECMG**

- (a) When the change is forecast to begin and end wholly within the trend forecast period, the beginning and end of the change should be indicated by using the abbreviations 'FM' and 'TL' respectively, with their associated time groups.
- (b) When the change is forecast to commence at the beginning of the trend forecast period but be completed before the end of that period, the abbreviation 'FM' and its associated time group should be omitted and only 'TL' and its associated time group should be used.
- (c) When the change is forecast to begin during the trend forecast period and be completed at the end of that period, the abbreviation 'TL' and its associated time group should be omitted and only 'FM' and its associated time group should be used.
- (d) When the change is forecast to occur at a specified time during the trend forecast period, the abbreviation 'AT' followed by its associated time group should be used.
- (e) When the change is forecast to commence at the beginning of the trend forecast period and be completed by the end of that period, or when the change is forecast to occur within the trend forecast period but the time is uncertain, the abbreviations 'FM', 'TL' or 'AT' and their associated time groups should be omitted and the change indicator 'BECMG' should be used alone.

GM1 MET.TR.225(c)(7)(ii) Forecasts for landing**USE OF CHANGE INDICATORS IN TREND FORECASTS**

Guidance on the use of change indicators in trend forecasts is given in the table below:

<i>Change indicator</i>	<i>Time indicator and period</i>	<i>Meaning</i>	
NOSIG	—	no significant changes are forecast	
BECMG	FMn1n1n1n1 TLn2n2n2n2	the change is forecast to	commence at n1n1n1n1 UTC and be completed by n2n2n2n2 UTC.
	TLnnnn		commence at the beginning of the trend forecast period and be completed by nnnn UTC
	FMnnnn		commence at nnnn UTC and be completed by the end of the trend forecast period.
	ATnnnn		occur at nnnn UTC (specified time).
	—		commence at the beginning of the trend forecast period and be completed by the end of the trend forecast period; or the time is uncertain.
TEMPO	FMn1n1n1n1	temporary	commence at n1n1n1n1 UTC and cease by



	TLn2n2n2n2	fluctuations are forecast to	n2n2n2n2 UTC.
	TLnnnn		commence at the beginning of the trend forecast period and cease by nnnn UTC.
	FMnnnn		commence at nnnn UTC and cease by the end of the trend forecast period.
	—		commence at the beginning of the trend forecast period and cease by the end of the trend forecast period.

AMC1 MET.TR.225(c)(7)(iii) Forecasts for landing**USE OF CHANGE GROUPS — TEMPO**

- (a) When the period of temporary fluctuations in the meteorological conditions is forecast to begin and end wholly within the trend forecast period, the beginning and end of the period of temporary fluctuations should be indicated by using the abbreviations 'FM' and 'TL' respectively, with their associated time groups.
- (b) When the period of temporary fluctuations is forecast to commence at the beginning of the trend forecast period but cease before the end of that period, the abbreviation 'FM' and its associated time group should be omitted and only 'TL' and its associated time group should be used.
- (c) When the period of temporary fluctuations is forecast to begin during the trend forecast period and cease by the end of that period, the abbreviation 'TL' and its associated time group should be omitted and only 'FM' and its associated time group should be used.
- (d) When the period of temporary fluctuations is forecast to commence at the beginning of the trend forecast period and cease by the end of that period, both abbreviations 'FM' and 'TL' and their associated time groups should be omitted and the change indicator 'TEMPO' should be used alone.

AMC1 MET.TR.230(a) Forecasts for take-off**AMENDMENTS TO FORECASTS**

- (a) The criteria for the issuance of amendments to forecasts for take-off for surface wind direction and speed, temperature and pressure, and any other elements agreed locally should be agreed between the aerodrome meteorological office and the operators concerned.
- (b) The criteria should be consistent with the corresponding criteria for special reports established for the aerodrome.

AMC1 MET.TR.235 Aerodrome warnings and wind shear warnings and alerts**FORMAT OF AERODROME WARNINGS**

- (a) Aerodrome warnings may be issued in accordance with the template below or in another format where required by operators or aerodrome meteorological offices.



Template for aerodrome warnings

Key:

M = inclusion mandatory, part of every message;

C = inclusion conditional, included whenever applicable.

<i>Element</i>	<i>Detailed content</i>	<i>Templates</i>	<i>Examples</i>
Location indicator of the aerodrome (M)	Location indicator of the aerodrome	nnnn	YUCC
Identification of the type of message (M)	Type of message and sequence number	AD WRNG [n]n	AD WRNG 2
Validity period (M)	Day and time of validity period in UTC	VALID nnnnnn/nnnnnn	VALID 211230/211530
IF THE AERODROME WARNING IS TO BE CANCELLED, SEE DETAILS AT THE END OF THE TEMPLATE.			
Phenomenon (M)	Description of phenomenon causing the issuance of the aerodrome warning	TC nnnnnnnnnn or [HVY] TS or GR or [HVY] SN [nnCM] or [HVY] FZRA or [HVY] FZDZ or RIME or [HVY] SS or [HVY] DS or SA or DU or SFC WSPD nn[n]MPS MAX nn[n] (SFC WSPD nn[n]KT MAX nn[n]) or SFC WIND nnn/nn[n]MPS MAX nn[n] (SFC WIND nnn/nn[n]KT MAX nn[n]) or SQ or FROST or TSUNAMI or VA[DEPO] or TOX CHEM or Free text up to 32 characters	TC ANDREW HVY SN 25CM SFC WSPD 20MPS MAX 30 VA TSUNAMI
Observed or forecast phenomenon (M)	Indication whether the information is observed and expected to continue, or forecast	OBS [AT nnnnZ] or FCST	OBS AT 1200Z OBS
Changes in intensity (C)	Expected changes in intensity	INTSF or WKN or NC	WKN
OR			
Cancellation of aerodrome warning	Cancellation of aerodrome warning referring to its identification	CNL AD WRNG [n]n nnnnnn/nnnnnn	CNL AD WRNG 2 211230/211530



- (b) When the above template is used, the sequence number referred to in the template should correspond to the number of aerodrome warnings issued for the aerodrome since 00.01 UTC on the day concerned.

GM1 MET.TR.235 Aerodrome warnings and wind shear warnings and alerts

RANGES AND RESOLUTIONS — AERODROME WARNINGS

- (a) The ranges and resolutions for the numerical elements included in aerodrome warnings are shown below:

Ranges and resolutions for the numerical elements included in volcanic ash and tropical cyclone advisory messages, SIGMET/AIRMET messages and aerodrome and wind shear warnings			
<i>Elements</i>		<i>Range</i>	<i>Resolution</i>
Summit elevation:	M	000–8 100	1
	FT	000–27 000	1
Advisory number:	for VA (index)*	000–2 000	1
	for TC (index)*	00–99	1
Maximum surface wind:	MPS	00–99	1
	KT	00–199	1
Central pressure:	hPa	850–1 050	1
Surface wind speed:	MPS	15–49	1
	KT	30–99	1
Surface visibility:	M	0000–0750	50
	M	0800–5 000	100
Cloud: height of base:	M	000–300	30
	FT	000–1 000	100
Cloud: height of top:	M	000–2 970	30
	M	3 000–20 000	300
	FT	000–9 900	100
	FT	10 000–60 000	1 000
Latitudes:	° (degrees)	00–90	1
	(minutes)	00–60	1
Longitudes:	° (degrees)	000–180	1
	(minutes)	00–60	1



Flight levels:		000–650	10
Movement:	KMH	0–300	10
	KT	0–150	5
* Non-dimensional			

- (b) The explanations for the abbreviations can be found in the Procedures for Air Navigation Services — ICAO Abbreviations and Codes (PANS ABC, Doc 8400).

AMC2 MET.TR.235(a) Aerodrome warnings and wind shear warnings and alerts

FORMAT OF AERODROME WARNINGS

- (a) The additional text should be prepared in abbreviated plain language using approved ICAO abbreviations and numerical values. If no ICAO-approved abbreviations are available, English plain language text should be used.
- (b) When quantitative criteria are necessary for the issuance of aerodrome warnings, the criteria should be established by agreement between the aerodrome meteorological office and the users of the warnings.

AMC1 MET.TR.235(c) Aerodrome warnings and wind shear warnings and alerts

FORMAT OF WIND SHEAR WARNINGS

- (a) The use of text additional to the abbreviations listed in the template in Appendix VI should be kept to a minimum. The additional text should be prepared in abbreviated plain language using ICAO-approved abbreviations and numerical values.
- (b) When an aircraft report is used to prepare a wind shear warning or to confirm a warning previously issued, the corresponding aircraft report, including the aircraft type, should be disseminated unchanged in accordance with the local arrangements between those concerned.

GM1 MET.TR.235(c) Aerodrome warnings and wind shear warnings and alerts

WIND SHEAR TYPES

Following reported encounters by both arriving and departing aircraft, two different wind shear warnings may exist: one for arriving aircraft and one for departing aircraft.

GM2 MET.TR.235(c) Aerodrome warnings and wind shear warnings and alerts

REPORTING THE INTENSITY OF WIND SHEAR

Specifications for reporting the intensity of wind shear are still under development. It is recognised, however, that pilots, when reporting wind shear, may use the qualifying terms 'moderate', 'strong' or 'severe', based to a large extent on their subjective assessment of the intensity of the wind shear encountered.

GM1 MET.TR.235(c) Aerodrome warnings and wind shear warnings and alerts

DETECTION OF WIND SHEAR

Wind shear conditions are normally associated with the following phenomena:

- (a) thunderstorms, microbursts, funnel cloud, tornado or waterspout, and gust fronts;
- (b) frontal surfaces;



- (c) strong surface winds coupled with local topography;
- (d) sea breeze fronts;
- (e) mountain waves, including low-level rotors in the terminal area; and
- (f) low-level temperature inversions.

GM1 MET.TR.235(d) Aerodrome warnings and wind shear warnings and alerts
DISSEMINATION OF WIND SHEAR ALERTS

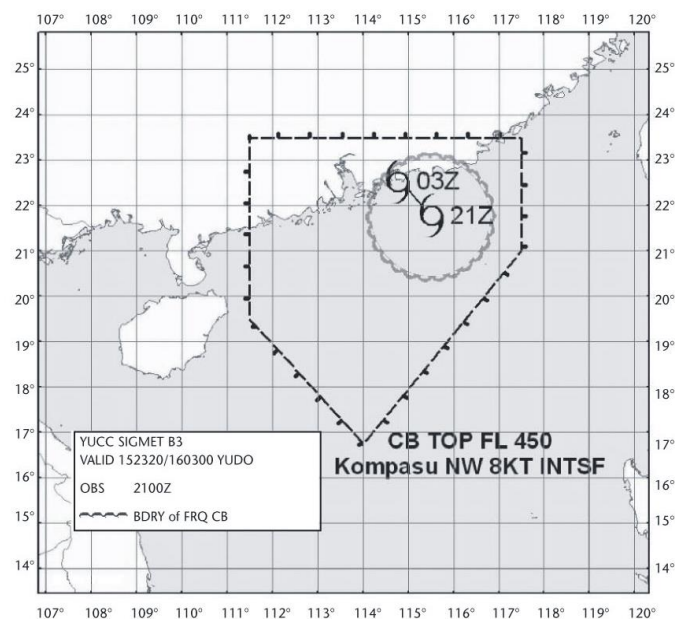
The wind shear alerts are disseminated from automated, ground-based, wind shear remote-sensing or detection equipment in accordance with local arrangements to those concerned.

Chapter 3 — Technical requirements for meteorological watch offices

AMC1 MET.TR.250(a) SIGMET messages
GRAPHICAL FORMAT

SIGMET, when issued in graphical format, should be as specified below:

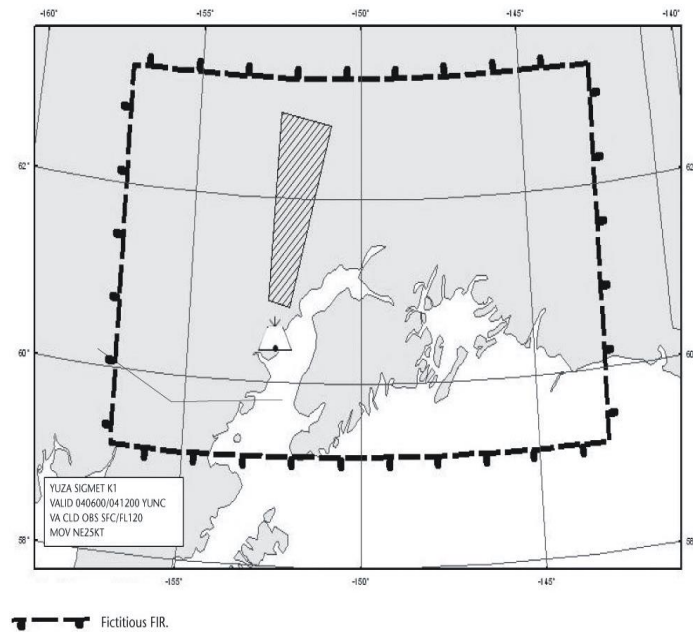
(a) SIGMET FOR TROPICAL CYCLONE — MODEL STC



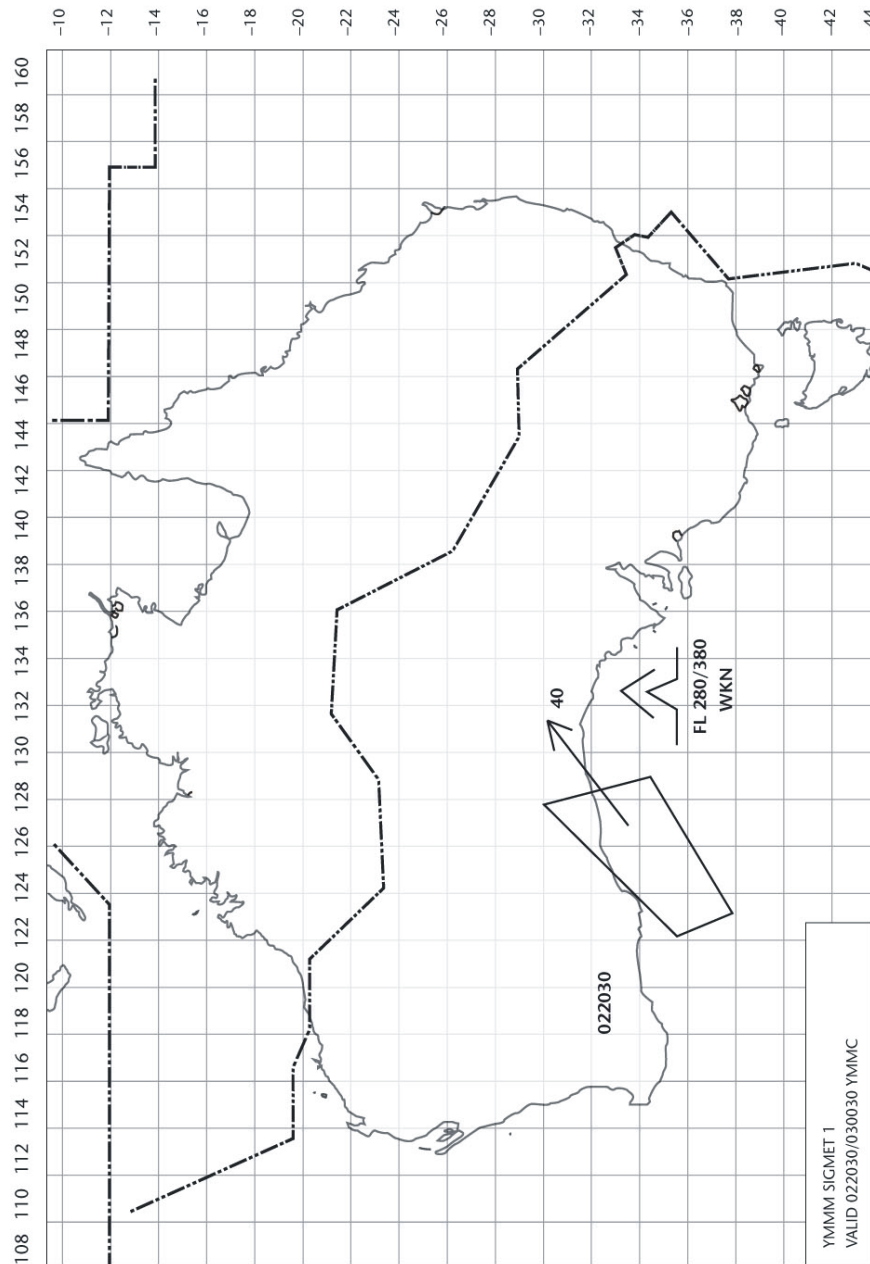
Note: — Fictitious FIR.



(b) SIGMET FOR VOLCANIC ASH — MODEL SVA



(c) SIGMET FOR PHENOMENA OTHER THAN TROPICAL CYCLONE AND VOLCANIC ASH — MODEL SGE



AMC2 MET.TR.250(a) SIGMET messages**FLIGHT INFORMATION REGION**

In cases where the airspace is divided into a flight information region (FIR) and an upper-flight information region (UIR), the SIGMET message should be identified by the location indicator of the ATS unit serving the FIR.

GM1 MET.TR.250(a) SIGMET messages**FLIGHT INFORMATION REGION**

The SIGMET message applies to the whole airspace within the lateral limits of the FIR, i.e. to the FIR and to the UIR. The particular areas and/or flight levels affected by the meteorological phenomena causing the issuance of the SIGMET message are given in the text of the message.

GM2 MET.TR.250(a) SIGMET messages & MET.TR.255(a) AIRMET messages**EXAMPLE OF SIGMET AND AIRMET MESSAGES, AND THE CORRESPONDING CANCELLATIONS**

SIGMET	Cancellation of SIGMET
YUDD SIGMET 2 VALID 101200/101600 YUSO – YUDD SHANLON FIR/UIR OBSC TS FCST S OF N54 AND E OF W012 TOP FL390 MOV E WKN FCST 1600Z S OF N54 AND E OF W010	YUDD SIGMET 3 VALID 101345/101600 YUSO – YUDD SHANLON FIR/UIR CNL SIGMET 2 101200/101600
AIRMET	Cancellation of AIRMET
YUDD AIRMET 1 VALID 151520/151800 YUSO – YUDD SHANLON FIR ISOL TS OBS N OF S50 TOP ABV FL100 STNR WKN	YUDD AIRMET 2 VALID 151650/151800 YUSO – YUDD SHANLON FIR CNL AIRMET 1 151520/151800

GM3 MET.TR.250(a) SIGMET messages**EXAMPLE OF SIGMET MESSAGE FOR TROPICAL CYCLONE**

YUCC SIGMET 3 VALID 251600/252200 YUDO — YUCC AMSWELL FIR TC GLORIA OBS AT 1600Z
N2706 W07306 CB TOP FL500 WI 150NM OF CENTRE MOV NW 10KT NC FCST 2200Z TC CENTRE
N2740 W07345

Meaning:

The third SIGMET message issued for the AMSWELL* flight information region (identified by YUCC Amswell area control centre) by the Donlon/International* meteorological watch office (YUDO) since 00.01 UTC; the message is valid from 16.00 UTC to 22.00 UTC on the 25th of the month; tropical cyclone Gloria was observed at 16.00 UTC at 27 degrees 6 minutes north and 73 degrees 6 minutes west with cumulonimbus top at flight level 500 within 150 nautical miles of the centre; the tropical cyclone is expected to move north-westwards at 10 knots and not to undergo any changes in intensity; the forecast position of the centre of the tropical cyclone at 22.00 UTC is expected to be at 27 degrees 40 minutes north and 73 degrees 45 minutes west.

* Fictitious locations



GM4 MET.TR.250(a) SIGMET messages**EXAMPLE OF SIGMET MESSAGE FOR VOLCANIC ASH**

YUDD SIGMET 2 VALID 211100/211700 YUSO – YUDD SHANLON FIR/UIR VA ERUPTION MT ASHVAL
PSN S1500 E07348 VA CLD OBS AT 1100Z

APRX 220KM BY 35KM S1500 E07348 — S1530 E07642 FL310/450 MOV SE 35KT FCST 1700Z VA CLD
APRX S1506 E07500 — S1518 E08112 — S1712 E08330 — S1824 E07836

Meaning:

The second SIGMET message issued for the SHANLON* flight information region (identified by YUDD Shanlon area control centre/upper flight information region) by the Shanlon/International* meteorological watch office (YUSO) since 00.01 UTC; the message is valid from 11.00 UTC to 17.00 UTC on the 21st of the month; volcanic ash eruption of Mount Ashval* located at 15 degrees south and 73 degrees 48 minutes east; volcanic ash cloud observed at 11.00 UTC in an approximate area of 220 km by 35 km between 15 degrees south and 73 degrees 48 minutes east, and 15 degrees 30 minutes south and 76 degrees 42 minutes east; between flight levels 310 and 450, the volcanic ash cloud is expected to move south-eastwards at 35 knots; at 17.00 UTC the volcanic ash cloud is forecast to be located approximately in an area bounded by the following points: 15 degrees 6 minutes south and 75 degrees east, 15 degrees 18 minutes south and 81 degrees 12 minutes east, 17 degrees 12 minutes south and 83 degrees 30 minutes east, and 18 degrees 24 minutes south and 78 degrees 36 minutes east.

** Fictitious locations*

GM5 MET.TR.250(a) SIGMET messages**EXAMPLE OF SIGMET MESSAGE FOR RADIOACTIVE CLOUD**

YUCC SIGMET 2 VALID 201200/201600 YUDO — YUCC AMSWELL FIR RDOACT CLD OBS AT 1155Z WI
S5000 W14000 — S5000 W13800 — S5200 W13800 — S5200 W14000 — S5000 W14000 SFC/FL100
STNR WKN

Meaning:

The second SIGMET message issued for the AMSWELL* flight information region (identified by YUCC Amswell area control centre) by the Donlon/International* meteorological watch office (YUDO) since 00.01 UTC; the message is valid from 12.00 UTC to 16.00 UTC on the 20th of the month; radioactive cloud was observed at 11.55 UTC within an area bounded by 50 degrees 0 minutes south and 140 degrees 0 minutes west to 50 degrees 0 minutes south and 138 degrees 0 minutes west to 52 degrees 0 minutes south and 138 degrees 0 minutes west to 52 degrees 0 minutes south and 140 degrees 0 minutes west to 50 degrees 0 minutes south and 140 degrees 0 minutes west and between the surface and flight level 100; the radioactive cloud is expected to remain stationary and to weaken in intensity.

** Fictitious locations*



GM6 MET.TR.250(a) SIGMET messages**EXAMPLE OF SIGMET MESSAGE FOR SEVERE TURBULENCE**

YUCC SIGMET 5 VALID 221215/221600 YUDO — YUCC AMSWELL FIR SEV TURB OBS AT 1210Z N2020 W07005 FL250 MOV E 20KT WKN FCST 1600Z S OF N2020 E OF W06950

Meaning:

The fifth SIGMET message issued for the AMSWELL* flight information region (identified by YUCC Amswell area control centre) by the Donlon/International* meteorological watch office (YUDO) since 0001 UTC; the message is valid from 12.15 UTC to 16.00 UTC on the 22nd of the month; severe turbulence was observed at 12.10 UTC 20 degrees 20 minutes north and 70 degrees 5 minutes west at flight level 250; the turbulence is expected to move eastwards at 20 knots and to weaken in intensity; forecast position at 16.00 UTC south of 20 degrees 20 minutes north and east of 69 degrees 50 minutes west.

* Fictitious locations

AMC1 MET.TR.250(c) SIGMET messages**SEQUENCE NUMBER**

The letters to be used as the first character for the sequence number to indicate the specified en-route weather phenomena which may affect the safety of aircraft operations should be:

SIGMET Type	Specified en-route phenomena	Letter to be used in sequence number for specified en-route phenomena
WC	Tropical cyclone	C
	<i>For WC exchange test purposes</i>	X
WV	Volcanic ash	A
	<i>For WV exchange test purposes</i>	Y
WS	Thunderstorm	T
	Turbulence	U
	Icing	I
	Freezing rain	F
	Mountain wave	M
	Duststorm	D
	Sandstorm	S
	Radioactive cloud	R
	<i>For WS exchange test purposes</i>	Z

AMC2 MET.TR.250(c) SIGMET messages**SEQUENCE NUMBER**

The two-character number to be used in the sequence number should correspond to the number of SIGMET messages, dependent on the phenomena as indicated by the first character, issued for the flight information region since 00.01 UTC on the day concerned.



AMC1 MET.TR.250(d) SIGMET messages & MET.TR.255(d) AIRMET messages

CRITERIA RELATED TO PHENOMENA

Sandstorm/dust storm should be considered:

- (a) heavy whenever the visibility is below 200 m and the sky is obscured; and
- (b) moderate whenever the visibility is:
 - (1) below 20 m and the sky is not obscured; or
 - (2) between 200 and 600 m.

GM1 MET.TR.250(d) SIGMET messages & MET.TR.255(c) AIRMET messages

CRITERIA RELATED TO PHENOMENA

- (a) An area of thunderstorms and cumulonimbus clouds is considered:
 - (1) obscured (OBSC) if it is obscured by haze or smoke or cannot be readily seen due to darkness;
 - (2) embedded (EMBD) if it is embedded within cloud layers and cannot be readily recognised;
 - (3) isolated (ISOL) if it consists of individual features which affect, or are forecast to affect, an area with a maximum spatial coverage less than 50 % of the area concerned (at a fixed time or during the period of validity); and
 - (4) occasional (OCNL) if it consists of well-separated features which affect, or are forecast to affect, an area with a maximum spatial coverage between 50 and 75 % of the area concerned (at a fixed time or during the period of validity).
- (b) An area of thunderstorms is considered frequent (FRQ) if within that area there is little or no separation between adjacent thunderstorms with a maximum spatial coverage greater than 75 % of the area affected, or forecast to be affected, by the phenomenon (at a fixed time or during the period of validity).
- (c) Squall line (SQL) indicates a thunderstorm along a line with little or no space between individual clouds.
- (d) Hail (GR) is used as a further description of the thunderstorm, as necessary.
- (e) Severe and moderate turbulence (TURB) refers only to: low-level turbulence associated with strong surface winds; rotor streaming; or turbulence whether in cloud or not (CAT). Turbulence is not used in connection with convective clouds.
- (f) Turbulence is considered:
 - (1) severe whenever the peak value of the cube root of EDR exceeds 0.7; and
 - (2) moderate whenever the peak value of the cube root of EDR is above 0.4 and below or equal to 0.7.
- (g) Severe and moderate icing (ICE) refers to icing in other than convective clouds. Freezing rain (FZRA) should refer to severe icing conditions caused by freezing rain.
- (h) A mountain wave (MTW) is considered:
 - (1) severe whenever an accompanying downdraft of 600 ft/min (3.0 m/s) or more and/or severe turbulence is observed or forecast; and
 - (2) moderate whenever an accompanying downdraft of 350–600 ft/min (1.75–3.0 m/s) and/or moderate turbulence is observed or forecast.



AMC1 MET.TR.250(e) SIGMET messages**FORMAT**

SIGMET messages should be issued in digital form, in addition to the abbreviated plain language.

GM1 MET.TR.250(e)(1) SIGMET messages**FORMAT**

Guidance on the information exchange model, GML, and the metadata profile is provided in the Manual on the Digital Exchange of Aeronautical Meteorological Information (Doc 10003).

GM2 MET.TR.255(a) AIRMET messages**EXAMPLE OF AIRMET MESSAGE FOR MODERATE MOUNTAIN WAVE**

YUCC AIRMET 2 VALID 221215/221600 YUDO — YUCC AMSWELL FIR MOD MTW OBS AT 1205Z N48 E010 FL080 STNR NC

Meaning:

The second AIRMET message issued for the AMSWELL* flight information region (identified by YUCC Amswell area control centre) by the Donlon/International* meteorological watch office (YUDO) since 00.01 UTC; the message is valid from 12.15 UTC to 16.00 UTC on the 22nd of the month; moderate mountain wave was observed at 12.05 UTC at 48 degrees north and 10 degrees east at flight level 080; the mountain wave is expected to remain stationary and not to undergo any changes in intensity.

* *Fictitious locations*

GM1 MET.TR.255(b) AIRMET messages**FIR**

The flight information region may be divided into sub-areas.

AMC1 MET.TR.260 Area forecasts for low-level flights**AMENDMENT OF LOW-LEVEL FORECASTS**

- (a) In case the AIRMET/low-level forecast concept is not fully implemented, the criteria for amendments should as a minimum include the weather phenomena hazardous to low-level flights, which constitute the criteria for the issuance of AIRMET.
- (b) When low-level forecast is issued as an SIGWX chart or as a wind and temperature (W+T) chart, it should, as appropriate, include the cloud/visibility information in the form of visibility/cloud base category which should be provided for well-defined sub-areas and/or route segments. For each sub-area and/or route segment, the reference height to which the cloud base information refers should be specified.
- (c) The graphical part of an SIGWX chart should depict the weather situation at the beginning of the validity period. Significant changes of initial weather parameters should be depicted together with time intervals determining the duration of expected changes.



Chapter 4 — Technical requirements for Volcanic Ash Advisory Centres

GM1 MET.TR.265(a) Volcanic Ash Advisory Centre responsibilities

EXAMPLE OF ADVISORY MESSAGE FOR VOLCANIC ASH

FVFE01 RJTD 230130	
VA ADVISORY	
DTG:	20080923/0130Z
VAAC:	TOKYO
VOLCANO:	KARYMSKY 1000-13
PSN:	N5403 E15927
AREA:	RUSSIA
SUMMIT ELEV:	1536M
ADVISORY NR:	2008/4
INFO SOURCE:	MTSAT-1R KVERT KEMSD
AVIATION COLOUR CODE:	RED
ERUPTION DETAILS:	ERUPTION AT 20080923/0000Z FL300 REPORTED
OBS VA DTG:	23/0100Z
OBS VA CLD:	FL250/300 N5400 E15930 — N5400 E16100 — N5300 E15945 MOV SE 20KT SFC/FL200 N5130 E16130 — N5130 E16230 — N5230 E16230 — N5230 E16130 MOV SE 15KT
FCST VA CLD +6 HR:	23/0700Z FL250/350 N5130 E16030 — N5130 E16230 — N5330 E16230 — N5330 E16030 SFC/FL180 N4830 E16330 — N4830 E16630 — N5130 E16630 — N5130 E16330
FCST VA CLD +12 HR:	23/1300Z SFC/FL270 N4830 E16130 — N4830 E16600 — N5300 E16600 — N5300 E16130
FCST VA CLD +18 HR:	23/1900Z NO VA EXP
RMK:	LATEST REP FM KVERT (0120Z) INDICATES ERUPTION HAS CEASED. TWO DISPERSING VA CLD ARE EVIDENT ON SATELLITE IMAGERY
NXT ADVISORY:	20080923/0730Z

GM1 MET.TR.265(b)(2) Volcanic Ash Advisory Centre responsibilities

BUFR CODE

The BUFR code form is contained in the WMO Publication No 306, Manual on Codes, Volume I.2, Part B — Binary Codes.

Chapter 5 — Technical requirements for Tropical Cyclone Advisory Centres (TCACs)

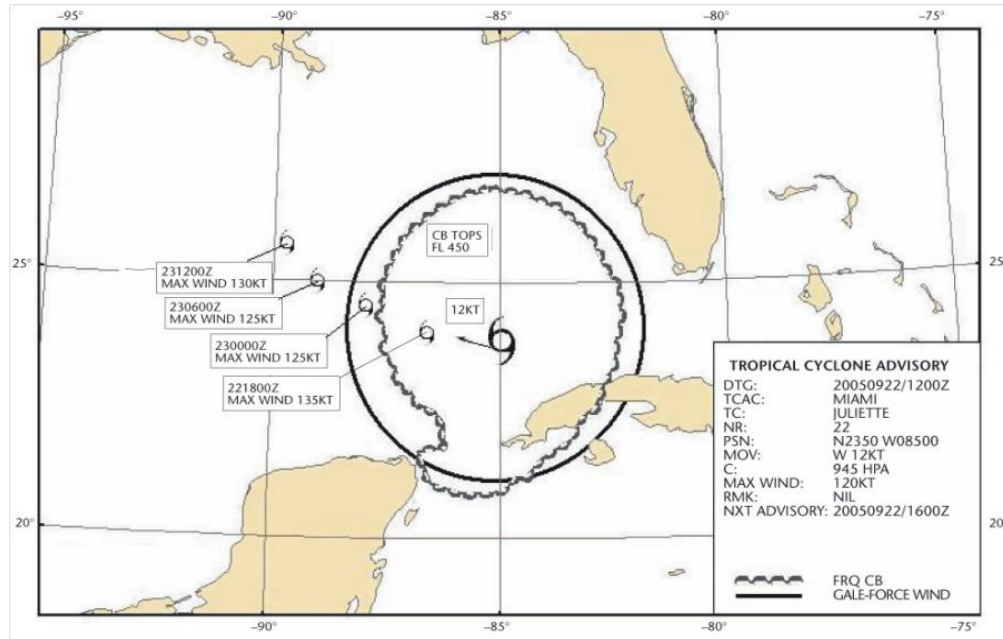
AMC1 MET.TR.270(b) Tropical Cyclone Advisory Centre responsibilities

FORMAT OF ADVISORY INFORMATION ON TROPICAL CYCLONES

The tropical cyclone advisory information listed in Table 8 of Appendix 1, when prepared in graphical format, should be as specified below and should be issued using:

- (a) the portable network graphics (PNG) format; or
- (b) the BUFR code form, when exchanged in binary format.



**GM1 MET.TR.270(b) Tropical Cyclone Advisory Centre responsibilities****CODE FOR ADVISORY INFORMATION ON TROPICAL CYCLONES**

The BUFR code form is contained in the WMO Publication No 306, Manual on Codes, Volume I.2, Part B — Binary Codes.

GM2 MET.TR.270(b) Tropical Cyclone Advisory Centre responsibilities**EXAMPLE FOR ADVISORY MESSAGE FOR TROPICAL CYCLONES**

TC ADVISORY	
DTG:	20040925/1600Z
TCAC:	YUFO
TC:	GLORIA
NR:	01
PSN:	N2706 W07306
MOV:	NW 12KT
C:	965HPA
MAX WIND:	73KT
FCST PSN +6 HR:	25/2200Z N2748 W07350
FCST MAX WIND +6 HR:	73KT
FCST PSN +12 HR:	26/0400Z N2830 W07430
FCST MAX WIND +12 HR:	73KT
FCST PSN +18 HR:	26/1000Z N2852 W07500
FCST MAX WIND +18 HR:	70KT
FCST PSN +24 HR:	26/1600Z N2912 W07530
FCST MAX WIND +24 HR:	60KT
RMK:	NIL
NXT MSG:	20040925/2000Z



Chapter 6 — Technical requirements for World Area Forecast Centres (WAFCs)**AMC1 MET.TR.275(a) World Area Forecast Centre responsibilities****GRIDDED GLOBAL FORECASTS**

The telecommunications facilities used for the supply of world area forecast system products should:

- (a) be the aeronautical fixed service or the public Internet;
- (b) be continuous; and
- (c) not have interruptions exceeding 10 minutes during any period of 6 hours.

GM1 MET.TR.275(a) World Area Forecast Centre responsibilities**GRIB CODE**

The GRIB code form is contained in the WMO Publication No 306, Manual on Codes, Volume I.2, Part B — Binary Codes.

GM2 MET.TR.275(a) World Area Forecast Centre responsibilities**BUFR CODE**

The BUFR code form is contained in the WMO Publication No 306, Manual on Codes, Volume I.2, Part B — Binary Codes.

GM1 MET.TR.275(b)(3) World Area Forecast Centre responsibilities**GRID POINT FORECASTS**

- (a) Layers centred at a flight level referred to in MET.TR.275(b)(3)(v) and (vii) have a depth of 100 hPa.
- (b) Layers centred at a flight level referred to in MET.TR.275(b)(3)(vi) have a depth of 50 hPa.

AMC1 MET.TR.275(d) World Area Forecast Centre responsibilities**MEDIUM-LEVEL SIGWX FORECASTS**

The medium-level SIGWX forecasts provided for flight levels between 100 and 250 for limited geographical areas should cover the areas as shown in Table 2 of Appendix 1.



4. Individual comments (and responses)

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

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

NPA 2014-07(A)

(General comments)

-

comment

116

comment by: *Finnish Meteorological Institute*

Overall many mistakes in referencing text and tables between NPA 2014-07 (A) and NPA 2014-07 (B). FMI has given all comments assuming that text in NPA 2014-07 (A) is the intended EASA proposal.

Annex 3 Appendix 1 - Flight Documentation - Model Charts and Forms is missing from this document completely. Where are the examples of low level SIGWX charts described now?

FMI's main concerns:

- SPECI related criteria for operational significant changes has been deleted from EASA transpose of Annex 3 completely (pages 46-52) which will lead to significant loss of aviation safety and consistency of MET service between EU Member States and to a disarray of requirements even in State level. It will decrease the service level and quality for users concerning SPECIAL report, TAF, WARNINGS, AREA FORECAST and to local SIGWX charts. **FMI demands that these SPECI rules are to be included in local special report criteria.**
- Missing transposition of Annex 3 Appendix 1. If part of Annex 3 is missing from EU regulation, should MET provider follow ICAO Annex 3 or make their own interpretation of the missing part?
- Missing references to relevant AMC, GM in some IR's. There is a great risk of misunderstanding, when the relevant references are not stated in the Implementing Rule and might go unnoticed.
- Some of the IR's decrease the MET service level and can create extra costs
- In the future changes in ICAO Annex 3 and EU regulation need to be kept consistent and they need to come into effect at the same time

response

Noted

Noted. The Agency recognises some misalignments in the references numbering due to late



changes to the rule text document. Please note that NPA 2014-07 (A) is the document to be referred to when commenting on the rules.

The Model charts and Forms of Appendix 1 of ICAO Annex 3 are covered by reference in the NPA but they will be inserted in the revised text in order to avoid references to ICAO Annex 3.

- The related criteria for local special reports are reinserted in the revised text.
- Appendix 1 will be transposed in the rules.
- The Agency does not make references to GM or AMC in the IR. The numbering convention is applied to ease the link between IR and AMC/GM.
- Noted.
- The Agency intends to use the necessary mechanism to ensure that the regulation is aligned with the amendments to ICAO Annex 3 (if necessary) as soon as the amendment is adopted.

comment

117

comment by: *Belgocontrol*

Many of the comments to NPA (B) also have an impact on NPA (A) as changes to TR and related AMC & GM have been suggested

What is the status of the tables in the Appendices: are these to be considered as GM or do they have the same level as the requirement in which they are referred to ?

Order of Office types is a bit odd (also in NPA OR): it would seem to be more logical if the order would be as follows: Aeronautical MET Station; Aeronautical MET Office; MET Watch Office; VAAC, TCAC, WAFC (thus from local to global)

In NPA 2013-08 it was indicated that amongst others Chapter 8 of Part I of Annex 3 would be transposed as TR; this seems to be done (see many examples below) but the detailed traceability tables are not available, neither in NPA (B) or in a separate NPA (c) or updated 2013-08 NPA (e) - it is however noted that the cross reference tables (page 103-118) do include these references to Part 1 of ICAO Annex 3

response

Noted

- Noted.
- The tables in the Appendices are part of the Implementing rules and are, therefore, binding.
- Accepted, the order of office types will be changed as proposed.
- This statement is correct; the traceability for the chapters of Part I that were identified



to be transposed during the MET.TR phase is missing because the drafting document only contains the Appendices to Part II of ICAO Annex 3 and not Part I. This is due to the fact that the drafting documents for both MET.OR and MET.TR contain only their respective parts. A consolidated drafting document covering the entire ICAO Annex 3 will be provided at a later stage, for traceability purposes only.

comment	156	comment by: UK CAA
	Please be advised that there are no comments from the UK CAA on NPA 2014-07(A) Technical requirements and operational procedures for the provision of meteorological services.	
response	Noted	
comment	158	comment by: Copenhagen Airports A/S
	In general there has been focus on simplification in the transformation of the document. This is much appreciated CPH	
response	Noted	
comment	222	comment by: ENAC Italy
	The comments to this NPA have been prepared by a working group composed by ENAC, ENAV SpA and Italian Air Force, which is the IT representative at WMO.	
response	Noted	
comment	224	comment by: Austro Control
	Attachment #1	
response	Noted	
	Please refer to the responses to comment No 247 (from AustroControl) as the comments introduced under No 224 are identical.	
comment	234	comment by: CAA-NL
	Please be advised that the Netherlands Supports the comments entered by Mr. J. Sondij from the Royal Dutch Meteorological Institute (KNMI). We might formulate additional comments when we in the context of CRD 2013-08 when we are finalizing our analysis of that document together with the proposals of this NPA.	
response	Noted	



comment

236

comment by: CAA CZ

We appreciate an opportunity to comment this document. The following are the comments and questions resulting from common meeting discussions between representatives of ANS, METS providers, competent authorities and meteorology specialists from the Czech Republic. General ones are mentioned below and comments to the particular part of the text are attached to appropriate paragraphs.

1. General comments

(Comments related to more items or to the document as whole.)

Numerical references between parts (A) and (B) of this NPA are **partly misaligned**.

Cf. "MET.TR.235": it means "Forecasts - Take-off" in part (A), but "Warnings and alerts" in part (B) and in the Cross-reference table (pg. 103-118 of (A)). - and others

- **Transposition** of Annex 3 SARPs into MET.TR, MET.AMS and MET.GM is **not proportional** in different parts of the document. Requirements of similar type are handled differently (either as TR or as AMC/GM) across the NPA, especially in MET.TR.252 and MET.TR.255.

· **Uneven handling of similar matters across the NPA:** E.g. Digital exchange shall use XML/GML for TAFs (cf. MET.TR.225 (d)(1)), but GML only (without XML) for SIGMET (cf. MET.TR.225 (d)(1)) and METAR (cf. MET.TR.250 (c)(2)(i)). It seems that this NPA requires editorial revision.

- Intention to create this NPA as self-contained document with all necessary tables brings risk of potential errors and ambiguities. We **recommend excluding such technical material** (code tables, examples etc.) from NPA and leaving it as the reference into Annex 3 or WMO codes only.

Cf. Unwanted texts "Error Reference source not found" in the headings of Table 3a (pg. 83 of (A)) or Table 4a (pg. 91 of (A)). Asterisk symbol (*) in Wind speed part of Table 4a (pg. 91 of (A)) is not explained.

· **GAMET** (stated in NPA as not solved yet) is really missing in context of MET.TR.215 (c) (Area forecasts for low level flights) because of:

o some regulations of MET.TR.215 are applicable for both chart and text form of area forecasts for low levels

o GAMET is closely linked to AIRMET

· **Summary:** Due to such misalignments and apparent errors, in-depth analysis of the NPA seems to be nearly impossible. We would expect the next iteration and editorial revision resulting in re-issued NPA (CRD), which can serve as real baseline for comments, providing:

- o Numbering of MET.TR will be up-to-date, aligned to new MET.OR, also in the cross-references and in both parts (A) and (B) of NPA.
- o Apparent errors and inequities in the text will be corrected.

2. Open questions

(Questions arisen from the document.)

Role of SPECI in national or bilateral exchange:

Currently, SPECI are used at all Czech aerodromes (even with 30 min. METARs) and are recognized by users as an additional safety measure. What will be the future scenario:

- 1) no more SPECIs permitted (even for national use only)
- 2) SPECIs allowed only for national exchange
- 3) SPECIs allowed even for bilateral exchange (e.g. to send SPECIs into regional OPMET databank Vienna).



response *Noted*

- Noted. The Agency recognises some misalignments in the references numbering due to late changes to the rule text document. Please note that NPA 2014-07 (A) is the document to be referred to when commenting on the rules.
- Noted. However, as stated in the Explanatory Note, the transposition of ICAO Annex 3 does not mean a strict copy–paste of the provisions. All requirements cannot be handled exactly the same way. What is important is that the safety objectives are kept. The Agency has taken all the comments of this type into account when revising the rules, notably those related to MET.TR.252 and MET.TR.255.
- Noted. The Agency has corrected all the editorial misalignments in the revised draft text.
- The objective of including all the tables (based on the appendix to ICAO Annex 3 Part II) is to provide to the European MET community one single set of rules in one regulation. Making references to ICAO or WMO documents does not provide this facility. The tables in the NPA are copy–pasted from the templates in ICAO Annex 3, so they exactly represent the said templates.
- Noted. This is a document formatting error.
- GAMET: The comment is noted. The Agency's position is to not regulate GAMET at European level at this stage because it is understood that GAMET is not uniformly implemented in Europe. ICAO Annex 3 does not oblige Contracting States to issue forecast for low-level flight in the form of GAMET, but only stipulates that, if they issue forecast for low-level flight in abbreviated plain language, the GAMET format shall be used in accordance with the ICAO provisions. Therefore, the Agency considers that the proposed rules on low-level forecasts which enable the competent authority to decide on the issuance of these types of forecast based on traffic density and user requirements are sufficient as this may include GAMET, as well as other forms of low-level flights forecasts. The issuance and form of the low-level flight forecasts is left to the decision of the competent authority. Every Member State can still decide if it wishes to issue low-level forecasts in the form of a GAMET.
- SPECI: The draft rules do not require the issuance of SPECI in Europe and international dissemination when half-hourly METARs are issued. This approach is in line with ICAO Annex 3 and the EUR ANP. However, the rules do not forbid to issue SPECI, for instance in the case only hourly METARs are issued. SPECI may still be issued then. It is the decision of each State, in agreement with its provider, to decide if, in that case, SPECI shall be issued or not for national dissemination.

comment 247

comment by: *Austro Control*

Dear all,
 please be informed that Austria has following comments:
 Page No Reference Comment



P 7	Met. TR : Area forecast for low-level flights	Include “weather phenomena and parameter values ”, as they are needed for visibility or cloud base height
P 11	Forecast for take-off	Should be for a specific point in time, not a period to avoid questions of averaging etc.
P 13	Meteorological Authority	The ICAO Convention requires all Contracting States to nominate such a M.A > should be kept as fundamental term
P 14	Aerodrome Meteorological Office	Deletion of “International” renders the definition rather pointless – what would an aerodrome serve if not air navigation?? Text proposal: add “civil”
P 18	Semi-automatic observation	As in Europe there are hardly any purely manual observing stations left, the term “semi-automatic” is not considered useful, and therefore not necessary as it is not used by any other international regulatory or guidance material
P 19	Special Air reports	These are made by crew members, not aircraft (as in the case of automated AMDAR), proposed text: “, when conditions according to given criteria are encountered”
P 22/ 23	MET TR 265 c General	Last line “...for the supply of forecasts...”(editorial) WAFCS , VAACs and TCACs in their role of providing global datasets to international civil aviation are subject to ICAO regulations only, and this should be reflected in European regulations only referencing ICAO regs here to ensure globally coherent service
P 43	MET.TR.250 (C) (2)	a) The “enabling clause” chosen by ICAO (“States in a position to do so”) had been chosen carefully to allow gradual development without forcing Contracting States’ compliance at this early stage. b) The statement “xml is not used n Met. Reports”) is not formally correct: According to WMO, GML is considered a “dialect” or “variant” of XML, so that whenever GML is used, it is seen as a form of XML
P 69	MET.TR 255 (C) (3)	Changing Standards into Guidance Material could lead to confusion in future when a PANS-MET may be introduced by ICAO to distinguish SARPS from acceptable means of compliance
P 112	Exchange of air reports	The well-functioning of WAFCS, VAAC and TCAC depends to a large extent on the availability of air reports from MWO’s in their area of responsibility, and is an international requirement, not internal!
P 118	MET TR 220 (C)1.1.2	“Digital” is used as generic term and has no connection to BUFR here (BUFR has been eliminated as a code form for OPMET data), and covers XML and all its variants



P122	(K)	In ICAO philosophy, service levels, even if applied locally, are to be determined between the (national) authorities concerned, with participation of the service providers
P130	MET.TR.220 (f) (3)	Upgrading the “Normally should” to a “shall” not exceed 2 hours makes the second paragraph (in any case not more than 4 hours) perfectly redundant
P133	MET.OR.220 (a)	Instead of changing a clearly prescriptive paragraph (which contains an obligation for action) to a descriptive one, if the obligation is covered elsewhere, only a reference to this MET.OR 110) should be given.
P152/3	SIGMET Sequence number	The additional letter following a sequence number corresponding to SIGMET Type was introduced by METWSG to avoid unintentional removal by databanks of still valid SIGMET when a new SIGMET of different Type was issued while the previous one was to be kept in force.
P155	Use of XML/GML	See explanation on P43 lit. b) GML is a variant of XML
P156	GM MET.OR. 205 (a)	The listing of mandatory recipients o SIGMET (e.g. WAFC) is clearly to be retained as a Standard
P172	MET.TR.235	The removed text, while not very elegant, at least served as clarification that AD warnings are addressed to aerodrome and a/c on ground, whereas the WS warnings are addressed to a/c in APCH
P174	6.2.5	Removed text clarifies that “Alerts” MUST be based on automated systems, while Warnings are “human produced” and is thus important
P179	2 Exchange of aer. Climate info	Only the second para. refers to users, the first is important as it obliges Met Authorities to make this information available to other Contracting States
P183	AMC1 MET.TR.220(a)	Propose to change text in first line to :Information FOR operators and flight crew members (avoids duplication of provide)
P194	6.1	An international agreement to provide these information service to other contracting States is necessary
P206	Bottom of page, 2 nd para	It appears reasonable the information on certain specific local weather hazards such as topographically induced wind shear or turbulence from the Circular, but should be communicated to operators and flight crews as a safety relevant information e.g. in the AIP
P207	Required transit times	While it can be argued that transit times beyond the point of entry of Met information is outside the responsibility of MET, the choice of communication channel is not. MET SP are thus obliges to establish



		appropriate communication means to ensure the required transit times as stated in Annex 3, Compliance with this requirement is often used as KPI in QMS.
	MET.TR.205 (b)	How should a SIGMET being numbered when issued at 00.00 UTC ?
	MET.TR.210 (b)	How should an AIRMET being numbered when issued at 00.00 UTC ?
	MET.TR.215 (a)	In mountainous areas it is very often not possible to forecast parameters at an altitude of 2000ft due to elevations which are widespread above 2000ft
	MET.TR.215 (c)	What is “information [...] in support of the issuance of AIRMET information” ? Fundamentally area forecasts are prepared in support of flight operations. To prepare a forecast product (area forecast) only in support of another product (AIRMET) would mean it would not be intended to prepare and disseminate this product to users.
	MET.TR.220 (g)	is in contradiction to AMC1 MET.TR.215 (c) (“fixed-time prognostic charts”)
	MET.TR.225 (c)	Is in strong contradiction to Annex III Chapt.6.2.2. (“at least” vs. “not earlier than”)
	MET.TR.240 (b)	How should an aerodrome warning being numbered when issued at 00.00 UTC ?
	MET.TR.240 (d)	How should a wind shear warning being numbered when issued at 00.00 UTC ?
	GM1 MET.TR.205(c) & MET.TR.210(c) (a) (3) (4) (b) (c)	Please define the terms “area concerned” and “line” in this context (e.g. what is the minimum length of a line to be considered as a line)
		<i>In addition Austria likes to notify the following comments:</i>
@ IR Implementing Rules Annex IV Subpart A:	MET.OR.100	Clarification, specification or guidance is necessary regarding meaning of “accuracy” (probability ?) and meaning of “source” (raw material ?) (◇ also not included in GM1 MET.OR.100)
	MET.OR.200 (e)	Not consistent with ICAO Annex III to the Convention on International Civil Aviation Amendment 76 (◇ “accidental”)



	MET.OR.230 (c)	What are “area forecasts [...] prepared in support of the issuance of AIRMET information” ? Fundamentally area forecasts are prepared in support of flight operations. To prepare a forecast product (area forecast) only in support of another product (AIRMET) would mean it would not be intended to prepare and disseminate this product to users.
	MET.OR.240 (b)	How can the “meteorological information which has to be included in the flight documentation” differ from the “meteorological information which has been made available for flight planning”? Why should one put information into the flight documentation which is not the information made available ? Please explain !!
	MET.OR.245 (b)	Not consistent with ICAO Annex III to the Convention on International Civil Aviation Amendment 76 (◇ “accidental”)
	MET.OR.265 (a) (2)	Not consistent with ICAO Annex III to the Convention on International Civil Aviation Amendment 76 (◇ “accidental”)
@ AMCs and GMs Annex IV Subpart A:	GM1 MET.OR.200 (e)	Not consistent with ICAO Annex III to the Convention on International Civil Aviation Amendment 76 (◇ “accidental”)
	AMC1 MET.OR.205 (d)	Not in line with ICAO EUR DOC 012, EUR SIGMET and AIRMET guide, para 2.2.10
	GM1 MET.OR.265 (a) (1)	Not consistent with ICAO Annex III to the Convention on International Civil Aviation Amendment 76 (◇ “trial forecast”)

General Remarks:

The current transposition process creates an undue schism between the global ICAO applicability dates for amendments to SARPs and PANS and the situation in the EU, which may lead to liability issues where service providers could be challenged by non-European users and clients expecting a harmonized applicability of global regulations.

In the long run, this could be mitigated by a much stronger involvement of European authorities in the ICAO process for the development of global regulations, which would eliminate the stated need for independent regulations, or at least reduce them to formal aspects of referencing European legislation and regulations where appropriate.

In particular the situation of contracting states providing global and regional meteorological services under ICAO governance beyond the jurisdiction of the EU, but are based there and thus subject to separate regulations is seen as critical under the current approach.

Best regards
Franz Graser

response *Noted*



Please see below the Agency's responses to the comments. Also note that the comments on MET.OR are not responded to, but will be taken into consideration during the drafting of the Opinion stemming from CRD to NPA 2013-08, CRD to NPA 2014-13 and the present CRD. Indeed, the Agency reproduced for **information only** the text from MET.OR published with NPA 2013-08. As mentioned in the Explanatory Note to NPA 2014-07, this MET.OR text may not be the latest version since this NPA was subject to change following the revised text of the CRD to NPA 2013-08. NPA 2014-07 stated: 'Please note that the below rule text is the one currently proposed in NPA 2013-08 and does not contain the possible changes stemming from the current revision under the CRD process.' The Agency will, of course, review the comments on MET.OR made under this NPA and assess whether they are still relevant. In that case, the changes to the MET.OR text will be brought to the final revised text in the Opinion.

- Met.TR : Area forecast for low-level flights: Not accepted as the added value of the proposed addition is not understood. The text is based on ICAO Annex 3. The Agency considers that any change of that kind, with no certainty on the possible impact, should be assessed in a more broader forum and find an acceptable consensus.
- Forecast for take-off: Not accepted; however, the issue is understood. The text is based on ICAO Annex 3. The Agency considers that any change of that kind, with no certainty on the possible impact, should be assessed in a more broader forum and find an acceptable consensus.
- Meteorological Authority: Not accepted. The term 'meteorological authority' is a term used within the ICAO framework and covers very different entities. By using the term 'meteorological authority', ICAO Annex 3 does not distinguish between the roles of regulator/oversight and service provision while this division of responsibilities needs to be clear in European regulations. For the transposition of ICAO Annex 3 into EU law, the Agency had to take, each time, the decision whether this term would, in the EU context, be an ANSP or the competent authority/NSA. This decision was made on a case-by-case basis, depending on if the 'meteorological authority' — in ICAO Annex 3 — was meant to be the service provider or the national supervisory authority or even the CAA itself.
- Aerodrome Meteorological Office: Partially accepted. The definition has been amended as follows: "'Aerodrome meteorological office' means an office providing meteorological service for aerodromes." An aerodrome always serves air navigation.
- Semi-automatic observation: Not accepted. The Agency does not agree with the removal of the notion and, therefore, definition of semi-automatic observing system. The Regulation differentiates between semi-automatic and (fully-)automatic observing systems to observe/measure and disseminate meteorological elements. To observe/measure and disseminate meteorological elements without using one of these two systems, an option provided by ICAO Annex 3, is not enabled by the proposed draft regulation. Moreover, the Regulation needs to differentiate between semi-automatic and (fully-)automatic observing since different rules apply per type of system implemented. To clearly separate between the three globally available modes of operations, whilst two are only enabled in the Regulation, the notion 'semi-



automatic observing system' is required. The terminology is used in and fully in line with ICAO and WMO material.

- Special Air-reports: Not accepted. The comment is understood but the definition follows ICAO Annex 3. The Agency does not see any added value in modifying the definition at this stage.
- MET TR 265(c): The Agency could not identify the editorial mistake on page 22 (which is not MET.TR.265) nor in MET.TR.265(c). All editorial mistakes will be removed with the final revised text version.
- General: Not accepted. WAFC and VAACS provide services to European users and, therefore, made intrinsic part of EU-Regulation in addition to the global responsibility of the relevant centres in the SES footprint. For consistency, the TCACs were included.
- MET.TR.250(c)(2): (a) Noted. The clause 'States in a position to do so' is now reflected in the rules in the form of AMC so as to avoid forcing Member States to have to comply at this stage. (b) Not accepted. GML is the agreed standard for digital exchange of METAR, SPECI, TAF and SIGMET and referenced in the regulation without indicating the markup language, XML. A specific guidance material is added to the revised text to explain why only GML is used in MET rules.
- MET.TR 255(c)(3): Noted. However, this AMC transposes Recommendation 4.3.3.2 of Appendix 3 to ICAO Annex 3 and not a standard.
- Exchange of air-reports: Noted. The Regulation covers the European obligations but does not preclude global obligations.
- MET TR 220(c1.1.2: The Agency could not find the reference to 'digital' in MET.TR.(c) nor on page 118 of the NPA pdf text. Therefore, no answer could be provided here. However, this issue is still open if deemed necessary by Austria.
- (K): The Agency takes note of the comment.
- MET.TR.220(f)(3): Noted. However, the Agency has transposed 9.1.6 of chapter 9 with no change.
- SIGMET Sequence number: The Agency now proposes a different approach to clarify the numbering of a SIGMET message. The new provision is in MET.TR.250(b) and (c).
- Use of XML/GML: Noted. GML is the agreed standard for digital exchange of METAR, SPECI, TAF and SIGMET and referenced in the regulation without indicating the markup language, XML. A specific guidance material is added to the revised text to explain why only GML is used in MET rules.
- MET.TR.235: Noted. However, the Agency considers that the Austrian comments is not a clear interpretation of the existing text of ICAO Annex 3.
- 6.2.5: Accepted to reintroduce this text in guidance material in the new GM2 MET.TR.240(e)
- 2 Exchange of aer. Climate info: Accepted. The text of point 2 of appendix 7 is now included in AMC2 MET.OR.255.
- AMC1 MET.TR.220(a): Accepted and changed in the revised text.



- 6.1: Not accepted. This is considered as being internal arrangements between MET providers, which should not be regulated.
- Bottom of page, 2nd para: Not accepted. The text is not transposed because the obligation is not on the MET service provider.
- Required transit times: Accepted. The recommendation related to 1.1 of Appendix 10 is transposed to AMC1 to MET.OR.110.
- MET.TR.205(b): Noted. The question is relevant and the Agency's view is that this should be discussed at ICAO level first before making any proposal at European level.
- MET.TR.210(b): Noted. The question is relevant and the Agency's view is that this should be discussed at ICAO level first before making any proposal at European level.
- MET.TR.215(a): The Agency transposed the text of ICAO Annex 3, appendix 5, 4.3.1.
- MET.TR.215(c): The Agency transposed the text of ICAO Annex 3, appendix 5, 4.4.
- MET.TR.220(g): There is no AMC1 MET.TR.215(c).
- MET.TR.225(c): Accepted and changed to align with the Annex 3 wording 'not earlier than'.
- MET.TR.240(b): Noted. The question is relevant and the Agency's view is that this should be discussed at ICAO level first before making any proposal at European level.
- MET.TR.240(d): Noted. The question is relevant and the Agency's view is that this should be discussed at ICAO level first before making any proposal at European level.
- GM1 MET.TR.205(c) & MET.TR.210(c) (a) (3) (4) (b) (c): The text is taken from ICAO Annex 3.

comment

260

comment by: Northern Europe Aviation Meteorology Consortium (NAMCon)

Overall, the states represented in NAMCon (Denmark, Estonia, Finland, Iceland, Latvia, Norway and Sweden) see that the document contains far too many errors to have been ready for submission for comments and would have benefitted from a more careful review. We also do not agree with the notion that the document contains only minor revisions to Annex 3 and that it is based on the latest amendment of ICAO Annexes.

In general, the references between and within NPA 2014-07 (A) and NPA 2014-07 (B) are in many cases incorrect and there are regular references to text in ICAO Annex 3 Amendment 75 instead of the currently valid amendment 76. This leaves the reader confused as to the intent of the writer.

The Northern Europe Aviation Meteorology Consortium has the following four main concerns:

1. The removal of the SPECI related criteria for operationally significant changes would lead to a significant loss of aviation safety and consistency between EU Member States and variations in requirements even at a State level. We also note that Iceland continues to use SPECI operationally in their service provision and as such the statement that in Europe SPECI is not in use is incorrect. NAMCon demands that these SPECI rules are to be included in local special report criteria.



	<p>2. The current NPA 2014-07 (A) text for the time of issuance of TAFs is directly contradicting Annex 3 AMDT76, which states that TAFs shall not be issued more than one hour prior to validity. The current NPA states the opposite that TAFs shall be issued at least one hour in advance. This has several negative impacts on the quality of the TAF and the arrangement of work at MET service providers. NAMCon demands that the text be changed according to Annex 3 AMDT76.</p> <p>3. The responsibilities of the State Volcano Observatories should be kept as according to Annex 3 AMDT76 as they have global roles not concerning only European airspace. A differing view could lead to confusion and decrease global interoperability. NAMCon demands that the parts related to SVOs be changed according to ICAO Annex 3 AMDT76.</p> <p>4. The implementation of aerodrome warnings at all airports, while contributing to aviation safety, should be backed up by a robust definition of the concerned phenomena and it should be accepted that the additional costs for such a service will be borne by the airspace users beyond the agreed RP2 cost allocations.</p> <p>Additional and more detailed comments have been provided by individual NAMCon member States on these issues and I encourage you to look at these with careful consideration.</p>
response	<p>Noted</p> <p>The Agency recognises some misalignments in the references numbering due to late changes to the rule text document and the necessary alignment with the MET.OR rules proposed in CRD to NPA 2013-08. Please note that NPA 2014-07 (A) is the document to be referred to when commenting on the rules.</p> <p>1. Accepted. The criteria for local special reports have been reintroduced in the revised text.</p> <p>2. Accepted and changed according to the ICAO Annex 3 wording 'not earlier than'.</p> <p>3. Not accepted. Volcano observatories are not considered as being meteorological providers according to the proposed notion of service provider in the EASA rules. Furthermore, they do not provide meteorological information as such.</p> <p>4. Noted.</p>
comment	<p>295 comment by: <i>European Transport Workers Federation - ETF</i></p> <p>Definition of meteorological authority : The ICAO Convention requires all Contracting States to nominate such a M.A therefore we think this definition has to be kept as a fundamental term.</p>
response	<p>Not accepted</p> <p>The term 'meteorological authority' is a term used within the ICAO framework and covers very different entities. By using the term 'meteorological authority', ICAO Annex 3 does not distinguish between the roles of regulator/oversight and service provision while this division of responsibilities needs to be clear in European regulations. For the transposition of ICAO Annex 3 into EU law, the Agency had to take, each time, the decision whether this term would, in the EU context, be an ANSP or the competent authority/NSA. This decision was made on a case-by-case basis, depending on if the 'meteorological authority' — in ICAO Annex 3 — was meant to be the service provider or the national supervisory authority or even the CAA itself.</p>



comment	298	comment by: <i>European Transport Workers Federation - ETF</i>
	<p>WAFCs , VAACs and TCACs in their role of providing global datasets to international civil aviation are subject to ICAO regulations only, and this should be reflected in European regulations only referencing ICAO regs here to ensure globally coherent service.</p>	
response	<p><i>Not accepted</i></p> <p>WAFc, VAAC and TCACs provide directly meteorological information to the users and are, therefore, considered as being MET service providers, subject to European Union rules.</p>	
comment	301	comment by: <i>European Transport Workers Federation - ETF</i>
	<p>Exchange of air reports (as described p.112 of part B of the NPA) : The well-functioning of WAFc, VAAC and TCAC depends to a large extent on the availability of air reports from MWO's in their area of responsibility, and is an international requirement, not internal ! We encourage EASA to revise its point of view on the transposition of 3.2.</p>	
response	<p><i>Not accepted</i></p> <p>An air-report is not a product generated by MET providers.</p> <p>The exchange of air-reports by voice com are covered by SERA and the automatic air-reports are subject to a separate task on data link operations.</p>	
comment	302	comment by: <i>European Transport Workers Federation - ETF</i>
	<p>The current transposition process creates an undue schism between the global ICAO applicability dates for amendments to SARPs and PANS and the situation in the EU, which may lead to liability issues where service providers could be challenged by non-European users and clients expecting a harmonized applicability of global regulations.</p> <p>In the long run, this could be mitigated by a much stronger involvement of European authorities in the ICAO process for the development of global regulations, which would eliminate the stated need for independent regulations, or at least reduce them to formal aspects of referencing European legislation and regulations where appropriate.</p> <p>In particular the situation of contracting states providing global and regional meteorological services under ICAO governance beyond the jurisdiction of the EU, but are based there and thus subject to separate regulations is seen as critical under the current approach.</p> <p>How is EASA tackling those issues ?</p>	
response	<p><i>Accepted</i></p> <p>The Agency agrees with this statement and is currently coordinating with all other relevant actors to synchronise the EU rules with the ICAO SARPs development. The Agency is already active in several ICAO panels/groups and is, therefore, aware, at an early stage, of the future regulatory changes at ICAO level. The participation of the European Union's actors to ICAO bodies will be reinforced in the future as stated during the MET divisional meeting in July 2014. The Agency intends to accelerate the rulemaking procedure so that the necessary regulatory changes to European regulations are synchronised with those stemming from amendments to the Annexes of ICAO.</p>	



comment	303	comment by: <i>Air transport directorate</i>
	<p>France regrets that the EASA NPA does not use the ICAO Annex 3 structure and paragraphs numbers. The European regulation should be drafted while keeping in mind that someday differences in substance will have to be notified by states against Annex 3. Everything should be done from the outset to facilitate this task, which can quickly become extremely complex when the texts are not closely aligned.</p> <p>France believes solutions should be found to optimize the comparison exercise between Annex 3 and the European regulation (use of ICAO paragraph numbers within brackets, use of exact same language when no need exists to do differently etc...). This would be beneficial to EASA, which usually provides States with notification of differences recommendations, for ICAO USOAP auditors, and for European Member States which must be able to understand and identify their compliance with and differences from ICAO provisions.</p> <p>Current French aeronautical meteorology regulation allows easy identification of differences, and the NPA is not seen as an improvement in this particular aspect, while EU Reg 216/2008 provides that the Agency shall assist Member States to respect their international obligations, in particular those under the Chicago Convention. Uncertainties as to the compliance with the Chicago Convention of the criteria used by EASA to provide recommendations for notifications of differences may make it necessary for France to undertake its own identification of differences to be filed under Article 38.</p>	
response	<p><i>Noted</i></p> <p>Once adopted, the specific annex on MET will be part of an existing European regulation and will then have to be structurally in line with the other annexes to that regulation. This does not have an impact on the notification by States of differences against ICAO Annex 3, which they are still entitled to do, whereas no filing of difference against a European regulation is possible. It is expected that, for ICAO Annex 3, the number of differences currently filed should be reduced to a minimum once the regulation is in force. Furthermore, the proposed rules do keep the same language as ICAO Annex 3 but it is, of course, sometimes difficult to keep this similarity for all the provisions because they need to follow a certain European legal vocabulary or be consistent with other terminology used in other regulations. As stated in the Explanatory Note, transposing ICAO Annex 3 does not mean copy-paste; it means reflecting the same safety objectives as those set by ICAO.</p>	
comment	308	comment by: <i>Air transport directorate</i>
	<p>Paragraph 3.1 of appendix 4 of ICAO Annex 3 should be transposed in the EASA regulation as they are not considered to constitute meteorological provider internal arrangements.</p>	
response	<p><i>Not accepted</i></p> <p>An air-report is not a product generated by MET providers.</p> <p>The exchange of air-reports by voice com are covered by SERA and the automatic air-reports are subject to a separate task on data link operations.</p>	
comment	309	comment by: <i>ENAV</i>



response	<p>All comments made by ENAV have been agreed with Italian Meteo Authority (ENAC) and Italian Air Force (Italian representative of the WMO)</p> <p><i>Noted</i></p>
comment	<p>392 comment by: <i>BAF-M.Jancokova</i></p> <p>General comments</p> <ul style="list-style-type: none"> - Though you noted that GAMET is not solved yet, you should make it to a topic in this NPA because the GAMET is a standardised disseminated product closely linked to SIGMETs and AIRMETs. - The same applies to SPECIs, it also should be mentioned in this NPA due to the same reasons
response	<p><i>Not accepted</i></p> <ul style="list-style-type: none"> — GAMET: The comment is noted. The Agency's position is to not regulate GAMET at European level at this stage because it is understood that GAMET is not uniformly implemented in Europe. ICAO Annex 3 does not oblige Contracting States to issue forecast for low-level flight in the form of GAMET, but only stipulates that, if they issue forecast for low-level flight in abbreviated plain language, the GAMET format shall be used in accordance with the ICAO provisions. Therefore, the Agency considers that the proposed rules on low-level forecasts which enable the competent authority to decide on the issuance of these types of forecast based on traffic density and user requirements are sufficient as this may include GAMET, as well as other forms of low-level flights forecasts. The issuance and form of the low-level flight forecasts is left to the decision of the competent authority. Every Member State can still decide if it wishes to issue low-level forecasts in the form of a GAMET. — SPECI: The draft rules do not require the issuance of SPECI in Europe and international dissemination when half-hourly METARs are issued. This approach is in line with ICAO Annex 3 and the EUR ANP. However, the rules do not forbid to issue SPECI, for instance in the case only hourly METARs are issued. SPECI may still be issued then. It is the decision of each State, in agreement with its provider, to decide if, in that case, SPECI shall be issued or not for national dissemination.

Notice of Proposed Amendment (NPA) 2014-07 (A) — General comments

p. 1-2

comment	<p>76 comment by: <i>René Meier, Europe Air Sports</i></p> <p>Europe Air Sports (EAS), European Powered Flying Union (EPFU), Aero-Club of Switzerland and European Ballooning Federation thank the Agency for this NPA. The four organisations joined forces to prepare the comments which follow.</p>
response	<p><i>Noted</i></p>
comment	<p>77 comment by: <i>René Meier, Europe Air Sports</i></p>



	<p>Executive Summary</p> <p>page 1/135</p> <p>first sentence</p> <p>We think the NPA does first of all address issues of dependability, reliability, protection of data and communication channels, seamless transmission of data, not safety.</p> <p>Rationale:</p> <p>Too many statements referring to "safety" are proposed in this NPA. Many times other terms would be clearer. Whenever useful, from our perspective, we replace "safety" or "safe", according to the context, with:</p> <p>concise</p> <p>correct</p> <p>dependable/dependability</p> <p>error-free</p> <p>in-time</p> <p>on demand</p> <p>on-time</p> <p>persistent</p> <p>precise/precision</p> <p>uninterrupted</p> <p>secure</p> <p>protected</p> <p>reliable/reliability</p>
response	<p><i>Not accepted</i></p> <p>The Agency does not agree with this statement.</p> <p>However, the text will be reconsidered if the term 'safety' is not relevant in some cases.</p>
comment	<p>136</p> <p>comment by: <i>SWEDISH TRANSPORT AGENCY</i></p> <p>2.1.2 Specific considerations</p> <p>Swedish Transport Agency do not agree with the conclusion by the rule making group to not transpose the GAMET forecast due to more clarity on the uniform implementation is needed. As ICAO Doc 7754 European Air Navigation Plan Basic Part VI-MET item 19 includes procedures for regional harmonization we believe that inclusion of this agreed provision would strengthen the use of GAMET format and therefore shall be included in EASA regulation.</p>
response	<p><i>Not accepted</i></p> <p>GAMET: The comment is noted. The Agency's position is to not regulate GAMET at European level at this stage because it is understood that GAMET is not uniformly implemented in Europe. ICAO Annex 3 does not oblige Contracting States to issue forecast for low-level flight in the form of GAMET, but only stipulates that, if they issue forecast for low-level flight in abbreviated plain language, the GAMET format shall be used in accordance with the ICAO provisions. Therefore, the Agency considers that the proposed rules on low-level forecasts which enable the competent authority to decide on the issuance of these types of forecast based on traffic density and user requirements are sufficient as this may include GAMET, as well as other forms of low-level flights forecasts. The issuance and form of the low-level</p>



flight forecasts is left to the decision of the competent authority. Every Member State can still decide if it wishes to issue low-level forecasts in the form of a GAMET.

comment	310	comment by: ENAV
	Please note that the recommendation of Annex 3, Appendix 3, par. 1.3, regarding the position of human observers hasn't been transposed	
response	<p><i>Accepted</i></p> <p>It is now added based on 1.3 of Appendix 3 to Annex 3 and included in GM MET.TR.255.</p>	

comment	311	comment by: ENAV
	<p>We don't agree with the assumption (in the rationale of NPA 2014-07 (B)) that SPECI wouldn't be issued in Europe.</p> <p>According to your interpretation, EUR ANP would state that METAR shall be issued at half-hourly intervals. This assumption doesn't seem to be supported by the relevant text reported in EUR ANP, which is the following: <i>"Half-hourly routine observations should be made at all RS (international scheduled air transport, regular use) and AS (international scheduled air transport, alternate use) aerodromes, as required in respect of operational needs, and reports issued as METAR and local reports together with local special reports. Half-hourly METAR should also be issued for any additional aerodromes, which are included in the EUR VHF VOLMET broadcast system."</i> As you can see EUR ANP only deals with aerodromes classified as RS or AS and with the ones included in VOLMET broadcasts. Nothing in the text above is stated with respect to other typologies of aerodromes such as RG, RNS or to not international aerodromes, for whom we think that the issuing of METAR at hourly intervals (which is a routine procedure in Italy for some aerodromes) should be maintained, together with the relevant SPECIs.</p> <p><u>In view of the above, in our opinion all the text dealing with SPECI within Annex 3, which in NPA 2014-07 (B) figures as deleted is to be restored and transposed into NPA 2014-07 (A).</u></p>	
response	<p><i>Not accepted</i></p> <p>The draft rules do not require the issuance of SPECI in Europe and international dissemination when half-hourly METARs are issued. This approach is in line with ICAO Annex 3 and the EUR ANP. EASA rules (especially those related to aerodromes) do not distinguish between both categories of aerodromes mentioned in the EUR ANP (RS and AS).</p> <p>However, the rules do not forbid to issue SPECI, for instance in the case only hourly METARs are issued. SPECI may still be issued then. It is the decision of each State, in agreement with its provider, to decide if, in that case, SPECI shall be issued or not for national dissemination.</p>	

comment	312	comment by: ENAV
	The definition of "Aerodrome" hasn't been transposed because it would be already contained in Regulation EC No. 216/2008 but please note that the definition reported in Annex 3 is different from the one contained in the above mentioned Regulation.	
response	<i>Noted</i>	



This is correct. The definition to be used for the purpose of the MET rules is the one contained in Regulation (EC) No 216/2008 and in Regulation (EU) No 139/2014.

comment

313

comment by: ENAV

The definition of “Alternate aerodrome” hasn’t been transposed in NPA 2014-07 (A). Please note that the relevant text reported in NPA 2014-07 (B) (see page 6) is consistent with the one reported in Amd. 75 of Annex 3 and is different from the latest text in Amd. 76

response

Accepted

This is correct. It is now included in the definitions according to the Amdt 76 text.

comment

314

comment by: ENAV

Please note that deleting the whole Appendix 4 (together with Chapter 5) of Annex 3, related to air-reports, from MET regulation, also the responsibilities of meteorological watch offices in the dissemination of air-report have been deleted (see Annex 3, Appendix 4, par. 3). In our opinion these meteorological requirements need to be covered under MET regulation

response

Not accepted

An air-report is not a product generated by MET providers.

Exchange of air-reports by voice com is covered by SERA and the automatic air-reports are subject to a separate task on data link operations.

comment

315

comment by: ENAV

We don’t agree with the supposed (we couldn’t find the rule transposed anywhere in NPA 2014-07 (A)) downgrading of the requirement of Annex 3, Appendix 6, par. 1.2.1 (about SIGMET dissemination) to GM, stated in NPA 2014-07 (B), page 156. For sake of safety, the flow of SIGMET dissemination is to be a requirement and roles and responsibilities in the transmission of relevant information are to be clearly defined

response

Not accepted

This GM cannot be found in NPA 2014-07 but in CRD to NPA 2013-08 as it is linked to the MET.OR provisions. This provision has been downgraded to Guidance Material because the requirement to disseminate SIGMET messages is already covered under MET.OR.205.

comment

316

comment by: ENAV

The text of Annex 3, Appendix 6, par. 6.1, dealing with guidelines/examples on ground-based wind shear detection systems is supposed (see NPA 2014-07 (B), page 170) to be transposed into GM2 MET.OR.235 (d) but we couldn’t find the relevant text

response

Noted

The text is now under GM2 MET.OR.240(d). This results from the CRD process where some requirements have changed numbering reference due to comments on NPA 2013-08.



comment	317	comment by: ENAV
	The paragraph 6.2 of Appendix 8 of Annex 3 is to be transposed because it isn't covered neither by MET.OR.110 (b) nor by MET.TR.220 (e), in fact it deals with information for in flight planning by the operator, which is not reported in any segment of the NPA	
response	<p><i>Not accepted</i></p> <p>The Agency considers that MET.OR.110 sufficiently covers the provisions of 6.2 of Appendix 8 ICAO Annex 3. The required meteorological information (meaning the list provided in 6.2) should be supplied to the operator during the period of the flight. MET.OR.100(a) covers this second situation as it states 'necessary for the performance of their respective functions' in combination with MET.OR.110(b) which states 'in a timely manner'.</p>	
comment	318	comment by: ENAV
	The paragraphs 1.1, 1.2, 1.3 of Appendix 9 of Annex 3 are to be transposed because they aren't covered by MET.OR provisions	
response	<p><i>Not accepted</i></p> <p>The provisions of Appendix 9, 1.1, 1.2 and 1.3 are not transposed because the meteorological information to be provided by aerodrome meteorological offices to the aerodrome control tower, the approach control unit and the area control centre are sufficiently covered in the different parts of MET.OR rules and supported by the generic requirement in MET.OR.100(a). The term 'meteorological information' covers all the meteorological elements covered in Appendix 9.</p>	

1. Procedural information

p. 3-4

comment	228	comment by: Jan Sondij
	<p>General remark regarding MET.TRs and MET.ORs</p> <p>The current NPA only deals with (a number of the) MET.TRs, whereas the MET.ORs were to be commented on earlier within the framework of NPA 2013-08. However, the MET.ORs and MET.TRs should be seen as a single and intertwining package. For this reason, we reserve ourselves the right, when we see the need, to place comments on the combination of the proposed MET.ORs and all proposed MET.TRs when commenting on CRD 2013-08 and CRD 2014-07.</p>	
response	<p><i>Noted</i></p> <p>The intention of the Agency is to publish the entire MET rule package (MET.OR and MET.TR together) in the future EASA Opinion (draft regulation) stemming from CRD to NPA 2013-08, CRD to NPA 2014-13 and the present CRD. This means that the entire Annex V of the draft regulation would be complete. However, before said Opinion is published, a dedicated meeting with MET experts to review the entire Annex V will be organised in order to allow proper review of the MET rules.</p>	



comment

371

comment by: Estonian Civil Aviation Administration

Estonian Civil Aviation Administration's Comments to EASA NPA 2014-07 (A)

The numbering is not clear and needs to be clarified. Same goes to wording, which needs to be more easy to read and fixed because of the misalignments. The document is not understandable and can't be accepted as it is.

Discrepancy occurs with the Annex 3 as referred also in Estonian Environment Agency's comment. As mentioned in point 1, the document consists many misalignments and it would be rational to fix the document fully and resend to comment.

SPECI is used by most aerodromes in Estonia. Estonian Civil Aviation Administration recommends to keep SPECI in this regulation.

Estonian Civil Aviation Administration fully supports Estonian Environment Agency's Comments as it follows:

„Comments to EASA NPA 2014-07 (A)

1) The numbering of items is so complicated...

2) Need to clarify the wording:

page 16, MET.TR.115 (a) - ...a suitable heading

page 19, MET.TR.220 (e) (2)

3) Discrepancy with ICAO documents

Page 6, *In this case, SPECI are not mentioned in the proposed rules because according to the EUR ANP, METAR are already issued at half-hourly intervals.*

Discrepancy with EUR ANP, Part VI-MET, §8

MET.TR.225 (TAF)

page 20, MET.TR.225 (c)

Discrepancy with the Annex 3, 6.2.2 and EUR ANP (Part VI-MET, 16.)

page 21, MET.TR.225 (3) (i) (K) - ...*as agreed by the aerodrome meteorological office with the ATS units and operators concerned*

Discrepancy with the Annex 3, App.5, 1.2.3: ... *as agreed by the meteorological authority with the ATS authority and operators concerned*

MET.TR.230 (TREND)

page 24, MET.TR.230 (3)(i)(F), (6) - Discrepancy with the Annex 3 (aerodrome meteorological office and ATS units instead of authorities)

MET.TR.250 (Met. reports and other information)

page 26, MET.TR.250 (a) – SPECI reports are omitted. Discrepancy with EUR ANP, Part VI-MET, §8

In Estonia the regular observations are made 1 time per hour at 4 from 5 aerodromes and they issue METAR and SPECI.

Page 37, **GM1 MET.TR.205(a) SIGMET** and MET.TR.210(a) AIRMET

Examples of SIGMET and cancellation of SIGMET are incorrect (format/beginning of second line).

(Discrepancy with Annex3 and ICAO EUR Doc 014 – EUR SIGMET and AIRMET Guide, 3.4.2, 3.4.3)

Page 38, **GM4 MET.TR.205(a) SIGMET**

Example of SIGMET for radioactive cloud is incorrect (Discrepancy with ICAO EUR Doc 014 – EUR SIGMET and AIRMET Guide, App E)

Page 46, **GM1 MET.TR.225(b)**, period of validity:

(e) Routine TAF valid for less than 12 hours should be issued every 3 hours, and those valid for 12 to 30 hours should be issued every 6 hours

Some EUR states issue „lõng-TAF“ every 3 hours, if so agreed between authorities

Page 46, **GM1 MET.TR.225(c)**, example of TAF is incorrect.



TAF YUDO 160000Z 1606/1624 13005KT 9000 BKN020 BECMG 1606/1608 BKN008 TEMPO 1608/1612 17015G25KT 3000 RA BKN004 FM161230 15004KT 9999 SCT020
 Issuing time is 6 hours before the beginning of the period of validity of a TAF.
 Meaning of the forecast:visibility 10 kilometres or more; and broken cloud at 2000 feet
 Page 51-52, **AMC1 MET.TR.215** Area forecasts for low-level flights
(c) The graphical part of an SIGWX chart should depict the weather situation at the beginning of the validity period. Significant changes of initial weather parameters should be depicted together with time intervals determining the duration of expected changes.
 Weather situation should be depicted for fixed valid time."

response

Noted

Noted. The Agency recognises some misalignments in the references numbering due to late changes to the rule text document and the necessary alignment with the MET.OR rules proposed in CRD to NPA 2013-08. Please note that NPA 2014-07 (A) is the document to be referred to when commenting on the rules.

SPECI: The draft rules do not require the issuance of SPECI in Europe and international dissemination when half-hourly METARs are issued. This approach is in line with ICAO Annex 3 and the EUR ANP. However, the rules do not forbid to issue SPECI, for instance in the case only hourly METARs are issued. SPECI may still be issued then. It is the decision of each State, in agreement with its provider, to decide if, in that case, SPECI shall be issued or not for national dissemination.

MET.TR.225 (TAF): Agreed and changed accordingly.

Discrepancy with the Annex 3, App.5, 1.2.3: Not accepted. The proposal is in line with the terminology used in European regulations.

MET.TR.230 (TREND): Not accepted. The proposal is in line with the terminology used in European regulations.

SPECI: The draft rules do not require the issuance of SPECI in Europe and international dissemination when half-hourly METARs are issued. This approach is in line with ICAO Annex 3 and the EUR ANP. However, the rules do not forbid to issue SPECI, for instance in the case only hourly METARs are issued. SPECI may still be issued then. It is the decision of each State, in agreement with its provider, to decide if, in that case, SPECI shall be issued or not for national dissemination.

GM1 MET.TR.205(a) SIGMET and MET.TR.210(a) AIRMET: corrected and now changed accordingly.

GM1 MET.TR.225(b): Corrected.

GM1 MET.TR.225(c): Corrected.

AMC1 MET.TR.21 : The Agency could not identify the issue in the comment.

2. Explanatory Note

p. 5-13

comment 78

comment by: René Meier, Europe Air Sports



response	<p>2. Explanatory Note page 5/135 Three times "safety" on 12 lines is a bit much. Aviation must be terribly unsafe these days. Delete it at least in the last sentence. Rationale: "...containing technical requirements" would be fully correct.</p> <p><i>Noted</i></p> <p>The Agency takes note of the comment.</p>
comment	<p>79 comment by: René Meier, Europe Air Sports</p> <p>2.1. Overview... 2.1.1. General considerations page 5/135 Overall transposition approach... You do not intend to reinvent the wheel you write. In fact you make two wheels of one. We do not see necessity of doing so. Rationale: European "hard law" and EASA "soft law" will sooner or later differ considerably from ICAO documents. In many cases this differentiation caused confusion, many were/are not willing to accept that e.g. a recommendation never was meant to be "hard law", many did not translate "shall" or "should" correctly, not to mention the "should not" also used. Our community suffered from this situation especially in the aircraft maintenance environment, after ten years it starts recovering. Repeating this does not add to safety, it only creates confusion and uncertainty.</p> <p>response <i>Noted</i></p> <p>The Agency is not of the opinion that IR and AMC/GM will considerably differ from ICAO documents. The transposition of ICAO Annex 3 has been made in order to stick as close as possible with the intent of the ICAO objectives. The Agency is aware that a recommendation is not necessarily a means of compliance to a standard. Having this in mind, the text was developed strictly on the basis of what MET service providers need to be compliant with in Europe, and the level of flexibility when having to implement the requirements. This approach was made in order to avoid deviating from the objectives of ICAO Annex 3.</p>
comment	<p>80 comment by: René Meier, Europe Air Sports</p> <p>Proportionality and flexibility page 6/135 "...to meet the SAFETY objectives defined by the EASA Basic Regulation...": We think "...to meet the objectives defined in "(EC) No 216/2008" is more correct. Rationale: The word "safety" is superfluous in this context, and it is not the "EASA Basic Regulation", it is the relevant EC, now EU, regulation on which EASA is based.</p> <p>response <i>Noted</i></p>



The Agency takes note of the comment.

comment 81 comment by: René Meier, Europe Air Sports

2.3. Summary...
page 9, 10, 11/135
Third part: "The table below..."
Question:
Why do we not get relevant information from the non-EU EASA Member States?

response Noted

Only the differences filed by EU member States are relevant as the rules only affect them.

comment 89 comment by: Finnish Meteorological Institute

2.1.1 General considerations
FMI considers it to not be appropriate to downgrade ICAO standards in EU.

response Noted

The Agency takes note of the comment.

As stated in the Explanatory Note: 'In order to achieve an effective, efficient, and consistent transposition of the ICAO material into European rules, the rulemaking group agreed on the main principle to operate the transposition of ICAO Annex 3 into European rules. While ICAO Standards are generally transposed as EASA Implementing Rule (IR) material, Recommended Practices (RPs) would normally be transposed as Acceptable Means of Compliance (AMC). However, this principle could not be applied in all cases, and a case-by-case approach was applied to determine whether the ICAO rule contained a safety objective or not, based on which the Standards or RPs could be downgraded to AMC or upgraded to IR, as relevant.

In the few cases where this case-by-case approach was followed, this was made with the full endorsement of the rulemaking group considering the safety objectives.

comment 90 comment by: Finnish Meteorological Institute

2.1.1 Overall transposition...
FMI considers that there are major changes to Annex 3 in this document.

response Noted

The Agency takes note of the comment.

comment 91 comment by: Finnish Meteorological Institute

2.1.1 States' differences...
FMI sees that it is not appropriate to use almost 10 years old list of differences, when several Annex 3 amendments have been made since then and the content of the Annex 3 has changed quite a lot. It does not reflect the current situation correctly.



response	<p><i>Noted</i></p> <p>Noted. The Agency provided the information that was available at the time of the drafting of the NPA. No recent document containing the States differences to ICAO Annex 3 is available. The draft rules are based on the latest version of ICAO Annex 3 (amendment 76).</p>
comment	<p>92 comment by: <i>Finnish Meteorological Institute</i></p> <p><u>p. 11</u> 2.3 FMI has the opinion that transposing Annex 3 rules according to EASA's proposal increases the risk of misunderstandings.</p> <p>2.3 FMI has the opinion that Member States should continue to transpose Annex 3 amendments in the future to ensure correct interpretation of the rules.</p> <p><u>p.13</u> 2.4, MET.TR.105 (b) Old versions of ICAO Annex 3 and Annex 14 stated in the table</p>
response	<p><i>Noted</i></p> <p>The Agency takes note of the position of FMI. Please note that, once the European Union regulation is adopted, the future amendments to ICAO Annex 3 will be transposed at European level only, if necessary.</p>
comment	<p>118 comment by: <i>Belgocontrol</i></p> <p>pg 10</p> <p>ICAO Annex 3 Supp - the indicated difference with respect to Appendix 8 is no longer applicable; please also note that this Supp is related to the differences with respect to ICAO Annex 3 up to including AMD73 - so some care has to be taken by referring to this outdated version - for Belgium the last update of differences is included in AIP of Belgium & GD Luxemburg</p>
response	<p><i>Noted</i></p> <p>The Agency takes note of the comment.</p>
comment	<p>157 comment by: <i>Copenhagen Airports A/S</i></p> <p>Item 2.1.1. p 6: General considerations "In this case, SPECI are not mentioned in the proposed rules because according to the EUR ANP, METAR are already issued at half-hourly intervals"</p> <p>CPH respons: "CPH and RKE reports SPECI as of today. According to standard in ICAO Annex 3 regarding special observations and reports, a SPECI shall be issued unless METAR are issued at half-hourly intervals. DK airports report half-hourly METAR.</p>



	<p>SPECI is therefore not a requirement but it could be recommended that SPECI continues to be a possibility by arrangement at the local airport. Note that SPECI is not issued with AUTO OBS. Removal of SPECI from the manual observations will lead to a more clear consistency between manual observations and automatic systems. There is no significant impact at RKE/CPH if SPECI is deleted from the regulation. We therefore support that SPECI is omitted from future regulation.</p> <p>-</p> <p>The NPA content regarding SPECI is not entirely unified. For example SPECI still appears in Table 5 on page 92 of the NPA.</p> <p><i>Note 1.— The ranges and resolutions for the numerical elements included in METAR and SPECI are shown in Table 5a of this appendix”</i></p>	
response	<p><i>Noted</i></p> <p>The Agency takes note of the comment and will ensure consistency.</p> <p>The draft rules do not require the issuance of SPECI in Europe and international dissemination when half-hourly METARs are issued. This approach is in line with ICAO Annex 3 and the EUR ANP. However, the rules do not forbid to issue SPECI, for instance in the case only hourly METARs are issued. SPECI may still be issued then. It is the decision of each State, in agreement with its provider, to decide if, in that case, SPECI shall be issued or not for national dissemination.</p>	
comment	<p>225</p> <p>2.1.1 General considerations</p> <p>IMO considers it to not be appropriate to downgrade ICAO standards.</p>	comment by: IMO
response	<p><i>Noted</i></p> <p>The Agency takes note of the comment.</p>	
comment	<p>226</p> <p>2.1.1 Overall transposition...</p> <p>IMO considers that there are major changes to Annex 3 in this document.</p>	comment by: IMO
response	<p><i>Noted</i></p> <p>The Agency takes note of the comment.</p>	
comment	<p>227</p> <p>2.1.1 States' differences...</p> <p>IMO states that it is not appropriate to use almost 10 years old list of differences, when several Annex 3 amendments have been made since then and the content of the Annex 3 has changed quite a lot. It does not reflect the current situation correctly.</p>	comment by: IMO
response	<p><i>Noted</i></p> <p>Noted. The Agency provided the information that was available at the time of the drafting of</p>	



the NPA. No recent document containing the States differences to ICAO Annex 3 is available. The draft rules are based on the latest version of ICAO Annex 3 (amendment 76).

comment

229

comment by: IMO

Reference to old versions of Annex 3 and 14 throughout the documents, which means that the latest changes have not been reflected and that is of course not acceptable. In general – inexcusable that we are given a document to review that does not conform to AMD76, which has been in effect since last november.

NOTE: There is a flip-flop between AMD75 and AMD76 on the time requirement in issuing TAFs. That is in AMD75 there was a **Recommendation** that TAF to be issued at least one hour before but in AMD76 it is set as a **Requirement** that TAF should be issued less than one hour before.

response

Not accepted

The Agency based its draft rules according to Amendment 76 of ICAO Annex 3. The drafting document is based on the latest version. The issue related to the time requirement in issuing TAF is recognised and has been corrected.

comment

230

comment by: IMO

Overall comment:

References between MET.OR, MET.TR, AMC and GM are not correct throughout the documents - incorrect numbers and references in text and tables.

Instead of trying to find all incorrect numbering and references we suggest a total review

response

Not accepted

The references in MET.OR and MET.TR are aligned.

The MET.OR text has been realigned during the CRD drafting following some reference changes during the NPA drafting of the MET.TR rules.

Please note that Appendix IV to NPA 2014-07 'MET rules of Annex IV — Subpart A of NPA 2013-08 (B)' provides for information only the related MET.OR. However, a note has been added to explicitly clarify that the MET.OR rule text is the one currently proposed in NPA 2013-08 and does not contain the possible changes stemming from the current revision under the CRD process.

comment

231

comment by: IMO

p. 11**2.3**

IMO has the opinion that transposing Annex 3 rules according to EASA's proposal increases the risk of misunderstandings.

response

Noted

The Agency takes note of the comment.



comment	<p>257</p> <p>comment by: <i>Amela Jericevic</i></p> <p>The names of the first three chapters in 3.1. Draft Regulation (Draft EASA Opinion) and in 3.2. Draft Acceptable Means of Compliance and Guidance Material (Draft EASA Decision) are not the same as those listed in the table in 2.4. Overview of the proposed amendment Subpart B, Section 2 – Specific requirements.</p>
response	<p><i>Accepted</i></p> <p>This comment is correct and the list of chapters on page 13 will be re-adjusted to follow the chapters of the Draft Opinion and Draft Decision.</p>
comment	<p>268</p> <p>comment by: <i>DWD</i></p> <p>Part A 2.3 Summary of Regulatory Impact Assessment</p> <p>According to Section 2.3 of the NPA 2014-07 (A), the „EU Member States which have notified differences to ICAO will have no issues in complying with the new draft rules“. The section provides information on State difference for 2005 as latest available information. This information is not up-to-date for Germany. DWD is to the greatest possible extent conform to the current ICAO Annex 3 Amendment 76. Old differences, as the ones from 2005, are replaced with the differences notified for each new amendment. Thus, while Germany is now conform to ICAO for the differences contained in the table, DWD has notified differences to ICAO in October 2013 via our national MET authority. These differences are not accounted for in the table on page 10/11. DWD proposes to remove the table from the final rule document.</p>
response	<p><i>Accepted</i></p> <p>The Agency takes note of the comments.</p> <p>The table will not be included in the CRD/Opinion documents.</p>
comment	<p>273</p> <p>comment by: <i>LEGMC</i></p> <p><u>2.1.1 Overall transposition...</u></p> <p>LEGMC considers that there are major changes to Annex 3 in this document.</p> <p><u>2.1.1 States' differences...</u></p> <p>It is not appropriate to use almost 10 years old list of differences, it does not reflect the current situation correctly.</p>
response	<p><i>Noted</i></p> <p>The Agency takes note of the comments.</p> <p>The Agency provided the information that was available at the time of the drafting of the NPA. No recent document containing the States differences to ICAO Annex 3 is available. The draft rules are based on the latest version of ICAO Annex 3 (amendment 76).</p>
comment	<p>281</p> <p>comment by: <i>Isavia ltd.</i></p>



response	2.1.1 Overall transposition... Isavia considers that there are some major changes to Annex 3 in this document.	
	<i>Noted</i>	The Agency takes note of the comment.
comment	284	comment by: <i>Isavia Ltd.</i>
response	2.4, MET.TR.105 (b) Old versions of ICAO Annex 3 and Annex 14 stated in the table	
	<i>Noted</i>	This statement is correct. However, at the time of publication of the NPA, the Agency strictly reproduced the Regulation (Regulation (EU) No 1035/2011) that was then, and still today is, in force.
comment	369	comment by: <i>Danish Meteorological Institute(DMI)</i>
response	Regarding page 6 and SPECI: DMI consider that even if one is not obliged to issue SPECI when you observe every half hour, it is allowed if it is local agreed that there is a need for this. DMI sees no reason to change this practice. It will in no way improve security to prohibit the issuance of SPECI, rather, the opposite. One should also be aware that the omission of SPECI will change the outcome of the verification of TAF, since only weather events that coincidentally appear in the defined observation period will be observed. Generally, this will mean fewer observations of weather phenomena that arise periodically and, for example, provides low visibility.	
	<i>Noted</i>	The draft rules do not require the issuance of SPECI in Europe and international dissemination when half-hourly METARs are issued. This approach is in line with ICAO Annex 3 and the EUR ANP. However, the rules do not forbid to issue SPECI, for instance in the case only hourly METARs are issued. SPECI may still be issued then. It is the decision of each State, in agreement with its provider, to decide if, in that case, SPECI shall be issued or not for national dissemination.

3. Proposed amendments — 3.1. Draft Regulation (Draft EASA Opinion) — Draft Opinion — Definitions

p. 14-16

comment	2	comment by: <i>Jan Sondij</i>
response	"Automatic observing system": in definition replace "measure" by "measures".	
	<i>Noted</i>	The NPA text is correct and reflects the proposal: “‘Automatic observing system’ means an observing system that measures , derives and reports all required elements without human interaction.”



comment	69	comment by: Jan Sondij
	<p>"Minimum sector altitude" is part of the definition of "Cloud of operational significance". As such, proposal is to include the definition of "minimum sector altitude" as the definition is not transposed.</p>	
response	<p><i>Accepted</i></p> <p>The following definition is the one contained in ICAO Annex 3:</p> <p>'The lowest altitude which may be used which will provide a minimum clearance of 300 m (1 000 ft) above all objects located in an area contained within a sector of a circle of 46 km (25 NM) radius centred on a radio aid to navigation.'</p>	
comment	70	comment by: Jan Sondij
	<p>"Forecast for take-off": consider to replace elements by element</p>	
response	<p><i>Accepted</i></p> <p>'Elements' has been changed to 'element'.</p>	
comment	71	comment by: Jan Sondij
	<p>A definition for "Vertical Visibility" is missing. The definition of "Visibility" is included in NPA 2013-08. Proposal to include the definition of "Vertical Visibility".</p>	
response	<p><i>Not accepted</i></p> <p>The definition of visibility is valid for both horizontal and vertical visibility.</p>	
comment	72	comment by: Jan Sondij
	<p>A definition for "CAVOK" is missing. Is mentioned in among others MET.TR.252 (b)(1). Proposal to include definition of CAVOK.</p>	
response	<p><i>Not accepted</i></p> <p>Not accepted as it is listed in the Appendix containing the abbreviations used, which is considered to be sufficient to understand this term. Furthermore, this term is described in MET.TR.250(c)(4).</p>	
comment	73	comment by: Jan Sondij
	<p>A definition for "freezing precipitation" is missing. Is mentioned in among others AMC2 MET.TR.250(a)(12)(a). Proposal to include definition of freezing precipitation.</p>	
response	<p><i>Not accepted</i></p> <p><u>We do not need to define all the weather phenomena, for instance: snow, drizzle, rain, etc.</u></p>	
comment	74	comment by: Jan Sondij
	<p>"WAFS": in definition replace "en route" by "en-route" and consider to replace</p>	



	"standardised" by "standardized".
response	<p><i>Partially accepted</i></p> <p>'en route' has been replaced by 'en-route'.</p> <p>The term 'standardised' is maintained and not replaced by 'standardized' which is the US spelling. The Agency's working language is British English.</p>
comment	<p>75 comment by: Jan Sondij</p>
	"Air report": in definition replace "Air report" by "Air-report".
response	<p><i>Accepted</i></p> <p>'Air report' has been changed to 'Air-report'.</p>
comment	<p>82 comment by: René Meier, Europe Air Sports</p>
	<p>3.1. Draft Regulation (Draft EASA Opinion) page 14/135 Definition "Area forecasts for low level flights" Question: How is "mountainous area" defined? Probably better: Where do we find an appropriate definition? Remark: We propose to write "mountain area" only. Rationale: The word is shorter and easier to write.</p>
response	<p><i>Not accepted</i></p> <p>The term 'Mountainous area' is not defined in ICAO Annex 3 nor in any other ICAO docs or WMO docs. Such a definition should be proposed by the appropriate experts and could be included at a later stage.</p> <p>The Agency would prefer to keep the term "mountainous area" as it is used in ICAO Annex 3 as well as other EU regulations.</p>
comment	<p>85 comment by: Jan Sondij</p>
	<p>Proposal to include a definition of "CAVOK". A description of "CAVOK" is used in EASA SERA 9010. It is important to ensure that throughout EASA regulations the same definition is used for the same meteorological term.</p> <p>SERA 9010 footnote i: "These elements are replaced by the term 'CAVOK' when the following conditions occur simultaneously at the time of observation: (a) visibility, 10 km or more, and the lowest visibility not reported; (b) no cloud of operational significance; and (c) no weather of significance to aviation."</p>
response	<p><i>Not accepted</i></p> <p>Not accepted as it is listed in the Appendix containing the abbreviations used, which is</p>



considered to be sufficient to understand this term. Furthermore, this term is described in MET.TR.250(c)(4).

comment 93 comment by: *Finnish Meteorological Institute*

p. 14

3.1, Automatic Observing System

Preferably referred to **automatic observations** while same observing system is usually able to produce both semi-automatic and automatic observations.

response *Not accepted*

The term used, 'automatic observing system', is the term reproduced from ICAO Annex 3.

comment 94 comment by: *Finnish Meteorological Institute*

p. 15

Missing definition:

"Minimum sector altitude" in Annex 3 shall be included, term is used in this document when defining "cloud of operational significance".

Alphabetical order:

Definitions are not entirely in alphabetical order

Semi-automatic observing system:

Preferably referred to **semi-automatic observations** while same observing system is usually able to produce both semi-automatic and automatic observations.

response *Partially accepted*

The following definition is the one contained in ICAO Annex 3: 'The lowest altitude which may be used which will provide a minimum clearance of 300 m (1 000 ft) above all objects located in an area contained within a sector of a circle of 46 km (25 NM) radius centred on a radio aid to navigation.'

The term 'semi-automatic observing system' is the term used in ICAO Annex 3.

comment 159 comment by: *ATC the Netherlands*

Automatic observing system": in definition replace "measure" by "measures".

response *Noted*

The NPA text is correct and reflects the proposal: "“Automatic observing system” means an observing system that **measures**, derives and reports all required elements without human interaction.”

comment 160 comment by: *ATC the Netherlands*

"Minimum sector altitude" is part of the definition of "Cloud of operational significance". As such, proposal is to include the definition of "minimum sector altitude" as the definition is



not transposed.

"Forecast for take-off": consider to replace elements by element.

A definition for "Vertical Visibility" is missing. The definition of "Visibility" is included in NPA 2013-08. Proposal to include the definition of "Vertical Visibility".

A definition for "CAVOK" is missing. Is mentioned in among others MET.TR.252 (b)(1). Proposal to include definition of the term CAVOK and to explain the acronym (is it Ceiling and Visibility or Cloud and Visibility?) and will there be any implications with an alteration in acronym?

A definition for "freezing precipitation" is missing. Is mentioned in among others AMC2 MET.TR.250(a)(12)(a). Proposal to include definition of freezing precipitation.

"WAFS": in definition replace "en route" by "en-route".

Proposal to include a definition of "CAVOK". A description of "CAVOK" is used in EASA SERA 9010. It is important to ensure that throughout EASA regulations the same definition is used for the same meteorological term.

SERA 9010 footnote i: *"These elements are replaced by the term 'CAVOK' when the following conditions occur simultaneously at the time of observation: (a) visibility, 10 km or more, and the lowest visibility not reported; (b) no cloud of operational significance; and (c) no weather of significance to aviation."*

response *Noted*

- The following definition is the one contained in ICAO Annex 3: 'The lowest altitude which may be used which will provide a minimum clearance of 300 m (1 000 ft) above all objects located in an area contained within a sector of a circle of 46 km (25 NM) radius centred on a radio aid to navigation.'
- 'Elements' has been changed to 'element'.
- The definition of visibility is valid for both horizontal and vertical visibility.
- CAVOK: Not accepted as it is listed in the Appendix containing the abbreviations used, which is considered to be sufficient to understand this term.
- 'Freezing precipitation': not accepted. The Agency does not intent to define each and every meteorological term when they seem to be obvious.
- 'en route' has been replaced by 'en-route'.
- CAVOK: Not accepted as it is listed in the Appendix containing the abbreviations used, which is considered to be sufficient to understand this term.

comment 232

comment by: IMO



response	<p><u>p. 14</u></p> <p>3.1, Automatic Observing System</p> <p>Preferably referred to automatic observations while same observing system is usually able to produce both semi-automatic and automatic observations.</p> <p><i>Not accepted</i></p> <p>The term 'automatic observing system' is the term used in ICAO Annex 3.</p>
comment	<p>233</p> <p style="text-align: right;">comment by: <i>IMO</i></p> <p><u>p. 15</u></p> <p>Missing definition:</p> <p>"Minimum sector altitude" in Annex 3 shall be included, term is used in this document when defining "cloud of operational significance".</p> <p>Alphabetical order:</p> <p>Definitions are not entirely in alphabetical order</p> <p>Semi-automatic observing system:</p> <p>Preferably referred to semi-automatic observations while same observing system is usually able to produce both semi-automatic and automatic observations.</p> <p>response <i>Partially accepted</i></p> <p>The following definition is the one contained in ICAO Annex 3: 'The lowest altitude which may be used which will provide a minimum clearance of 300 m (1 000 ft) above all objects located in an area contained within a sector of a circle of 46 km (25 NM) radius centred on a radio aid to navigation.'</p> <p>The term 'semi-automatic observing system' is the term used in ICAO Annex 3.</p>
comment	<p>250</p> <p style="text-align: right;">comment by: <i>IMO</i></p> <p>STRONG DISAGREEMENT</p> <p>NPA 2014-07 (A) and NPA 2014-07 (B) do not have the same definition of Volcano observatory! P16 & p21. Both definitions are useless because Annex 3 refers to State Volcano Observatory, which is a designated volcano observatory. The term designated is used throughout Annex 3 for various institutes and is specific and very important. Also creating a definition of a volcano observatory that is only European but not worldwide confuses things and does not clarify anything. SVO has the responsibility to transfer the specified information to aviation. There are three volcanic observatories in Iceland but only one that is a SVO.</p> <p>Suggestion – use the ICAO term.</p> <p>STRONG DISAGREEMENT</p> <p>Removing the sections on State Volcano Observatories – Annex 3 – 3.6 and Appendix 2-4. and spreading the information into other sections of NPA 2014-07 only obfuscates. SVO has the responsibility to determine the height of the ash column/plume – the source term for the VAAC model and report that height to everyone else. The first two VA SIGMETs for an erupting volcano are not based on info from the VAAC but from the SVO and MWO. AMD76 added items of responsibilities to SVO, see p. XIX-XX Annex 3.</p>



response

IMO suggests incorporating the sections on SVO in Annex 3 directly into the document.

Not accepted

Definition:

The correct definition is the one in NPA 2014-07 (A). The ICAO term 'designated' conflicts with the SES legislation of designation process to designate the certified service provider. Therefore, this term cannot be kept as it would create confusion. The Agency proposes to use the term 'selected volcano observatory', to be in line also with the EUR ANP.

State Volcano Observatories:

Not accepted. Volcano observatories are not considered as being meteorological providers according to the proposed notion of service provider in EASA rules. Furthermore, they do not provide meteorological information as such.

comment

280

comment by: LEGMC

"Volcano observatory" - Annex 3 refers to State Volcano Observatory, which is a **designated** volcano observatory. The responsibilities of the State Volcano Observatories should be kept as according to Annex 3 AMDT76 as they have global roles not concerning only European airspace. A differing view could lead to confusion and decrease global interoperability.

response

Not accepted

Not accepted. Volcano observatories are not considered as being meteorological providers according to the proposed notion of service provider in EASA rules. Furthermore, they do not provide meteorological information as such.

comment

286

comment by: Isavia Ltd.

p. 15

Missing definition:

"Minimum sector altitude" in Annex 3 shall be included, term is used in this document when defining "cloud of operational significance".

response

Accepted

The following definition is the one contained in ICAO Annex 3: 'The lowest altitude which may be used which will provide a minimum clearance of 300 m (1 000 ft) above all objects located in an area contained within a sector of a circle of 46 km (25 NM) radius centred on a radio aid to navigation.'

comment

293

comment by: European Transport Workers Federation - ETF

Definition of 'Area Forecast for low-level flights' : Include "weather phenomena and **parameter values**", **as they are needed for visibility or cloud base height for example.**

response

Not accepted

The proposal is taken into account. However, the Agency does not consider appropriate to



change, at this stage, a definition that was proposed and agreed with the experts of the rulemaking group.

comment 294 comment by: *European Transport Workers Federation - ETF*

Definition of 'forecast for take-off' : We encourage EASA to define a specific point in time, not a period to avoid questions of averaging etc.

response *Not accepted*

The proposal is taken into account. However, the Agency does not consider appropriate to change, at this stage, a definition that was proposed and agreed with the experts of the rulemaking group.

comment 296 comment by: *European Transport Workers Federation - ETF*

Definition of 'semi-automatic observing system' : As in Europe there are hardly any purely manual observing stations left, the term “semi-automatic” is not considered useful, and therefore not necessary as it is not used by any other international regulatory or guidance material

response *Not accepted*

The Agency does not agree with the removal of the notion and, therefore, definition of semi-automatic observing system. The Regulation differentiates between semi-automatic and (fully-) automatic observing systems to observe/measure and disseminate meteorological elements. To observe/measure and disseminate meteorological elements without using one of these two systems, an option provided in ICAO Annex 3, is not enabled by the proposed draft regulation. Moreover, the Regulation needs to differentiate between semi-automatic and (fully-) automatic observing since different rules apply per type of system used. To clearly separate between the three globally available modes of operations, whilst two are only enabled in the Regulation, the notion ‘semi-automatic observing system’ is required. The terminology is used in and fully in line with ICAO and WMO material.

comment 297 comment by: *European Transport Workers Federation - ETF*

Definition of 'Special air report' : These are made by crew members, not aircraft (as in the case of automated AMDAR).
The reference to the criteria is misleading so we propose : “when certain conditions are encountered”

response *Not accepted*

The comment is understood. However, the definition follows ICAO Annex 3.

comment 320 comment by: *ENAC Italy*

Please note that:

- the recommendation of Annex 3, Appendix 3, par. 1.3, regarding the position of



human observers hasn't been transposed;

- we don't agree about the assumption (in the rationale of NPA 2014-07 (B)) that SPECI wouldn't be issued in Europe. According to your interpretation, EUR ANP would state that METARs shall be issued at half-hourly intervals. This assumption doesn't seem to be supported by the relevant text reported in EUR ANP, which is the following: *"Half-hourly routine observations should be made at all RS (international scheduled air transport, regular use) and AS (international scheduled air transport, alternate use) aerodromes, as required in respect of operational needs, and reports issued as METAR and local reports together with local special reports. Half-hourly METAR should also be issued for any additional aerodromes, which are included in the EUR VHF VOLMET broadcast system."* As you can see EUR ANP only deals with aerodromes classified as RS or AS and with the ones included in VOLMET broadcasts. Nothing in the text above is stated with respect to other typologies of aerodromes such as RG, RNS or non-international aerodromes, for whom we think that the issuing of METARs at hourly intervals (which is a routine procedure in Italy for some aerodromes) should be maintained, together with the relevant SPECIs. In view of the above, in our opinion all the text dealing with SPECI within Annex 3, which in NPA 2014-07 (B) figures as deleted, is to be restored and transposed into NPA 2014-07 (A);
- the definition of "Aerodrome" hasn't been transposed because it would be already contained in Regulation EC No. 216/2008 but please note that the definition reported in Annex 3 is different from the one contained in the above mentioned Regulation.
- the definition of "Alternate aerodrome" hasn't been transposed in NPA 2014-07 (A). Please note that the relevant text reported in NPA 2014-07 (B) (see page 6) is consistent with the one reported in Amd. 75 of Annex 3 and is different from the latest text in Amd. 76.
- deleting the whole Appendix 4 (together with Chapter 5) of Annex 3, related to air-reports, from MET regulation, also the responsibilities of meteorological watch offices in the dissemination of air-report have been deleted (see Annex 3, Appendix 4, par. 3). In our opinion these meteorological requirements need to be covered under MET regulation;
- we don't agree with the supposed (we couldn't find the rule transposed anywhere in NPA 2014-07 (A)) downgrading of the requirement of Annex 3, Appendix 6, par. 1.2.1 (about SIGMET dissemination) to GM, stated in NPA 2014-07 (B), page 156. For sake of safety the flow of SIGMET dissemination is to be a requirement and roles and responsibilities in the transmission of relevant information are to be clearly defined;
- the text of Annex 3, Appendix 6, par. 6.1 dealing with guidelines/examples on ground-based wind shear detection systems is supposed (see NPA 2014-07 (B), page 170) to be transposed into GM2 MET.OR.235 (d) but we couldn't find the relevant text;
- the paragraph 6.2 of Appendix 8 of Annex 3 is to be transposed because it isn't covered neither by MET.OR.110(b) nor by MET.TR.220(e). In fact it deals with information for in flight planning by the operator, which is not reported in any segment of the NPA;
- the paragraphs 1.1, 1.2, 1.3 of Appendix 9 of Annex 3 are to be transposed because they aren't covered by MET.OR provisions.

response *Partially accepted*



- Noted. It is now included in the revised text.
- The draft rules do not require the issuance of SPECI in Europe and international dissemination when half-hourly METARs are issued. This approach is in line with ICAO Annex 3 and the EUR ANP. However, the rules do not forbid to issue SPECI, for instance in the case only hourly METARs are issued. SPECI may still be issued then. It is the decision of each State, in agreement with its provider, to decide if, in that case, SPECI shall be issued or not for national dissemination.
- Noted. The definition to be used is the one in the EASA Basic Regulation (Regulation (EC) No 216/2008).
- Accepted. It is included in the revised text.
- An air-report is not a product generated by MET providers. Exchange of air-reports by voice com is covered by SERA and the automatic air-reports are subject to a separate task on data link operations.
- This GM cannot be found in NPA 2014-07 but in CRD to NPA 2013-08 as it is linked to MET.OR provisions. This provision has been downgraded to Guidance Material because the requirement to disseminate SIGMET messages is already covered under MET.OR.205.
- The text is now under GM2 MET.OR.240(d); this results from the CRD process where some requirements have changed numbering reference due to comments on NPA 2013-08.
- Accepted. It has been corrected in the revised text.
- Accepted. It has been corrected in the revised text.

comment 322

comment by: ENAV

Page 14, definition of “Cloud of operational significance” - This definition, which is essential in the operational procedure for cloud observation. uses as a reference the term “minimum sector altitude”, which is not defined within the document and therefore should be transposed.

response Accepted

The following definition is the one contained in ICAO Annex 3: ‘The lowest altitude which may be used which will provide a minimum clearance of 300 m (1 000 ft) above all objects located in an area contained within a sector of a circle of 46 km (25 NM) radius centred on a radio aid to navigation.’

comment 329

comment by: ENAC Italy

Definition of “Cloud of operational significance”. This definition, which is essential in the operational procedure for cloud observation, uses as a reference the term “minimum sector altitude”, which is not defined within the document and should be transposed.

response Accepted



The following definition is the one contained in ICAO Annex 3: 'The lowest altitude which may be used which will provide a minimum clearance of 300 m (1 000 ft) above all objects located in an area contained within a sector of a circle of 46 km (25 NM) radius centred on a radio aid to navigation.'

comment

393

comment by: BAF-M.Jancokova

- Page 14: 'Aerodrome climatology summary'.....: should be complemented by "Based on WMO Standards and procedures"
- Page 14: 'Area forecast for....': change 'weather' against 'meteorological' phenomena

response

Not accepted

- The definition follows ICAO Annex 3 and should remain like this.
- 'Weather phenomena' is the term used in ICAO Annex 3 and is reproduced in the draft rules.

3. Proposed amendments — 3.1. Draft Regulation (Draft EASA Opinion) — Draft Opinion — Annex IV — SPECIFIC REQUIREMENTS FOR THE PROVISION OF METEOROLOGICAL SERVICES (Part-MET), SUBPART B — TECHNICAL REQUIREMENTS FOR THE PROVISION OF METEOROLOGICAL SERVICES (MET.TR), Section 1 — General requirements

p. 16

comment

394

comment by: BAF-M.Jancokova

- Page 16: 'Volcano observatory': better definition in ICAO Annex 3 and should be under the state control. It also can be part of a meteorological service (Litho-Meteor)
- Page 16 MET.TR.115: delete "suitable"

response

Partially accepted

- The ICAO term 'designated' conflicts with the SES legislation designation process to designate the certified service provider. Therefore, this term cannot be kept as it would lead to confusion. The Agency proposes to use the term 'selected volcano observatory', to be in line also with the EUR ANP. There is no definition of 'volcano observatory' in ICAO Annex 3.
- Accepted. It has been deleted.

3. Proposed amendments — 3.1. Draft Regulation (Draft EASA Opinion) — Draft Opinion — Annex IV — SPECIFIC REQUIREMENTS FOR THE PROVISION OF METEOROLOGICAL SERVICES (Part-MET), SUBPART B — TECHNICAL REQUIREMENTS FOR THE PROVISION OF METEOROLOGICAL SERVICES (MET.TR), Section 1 — General requirements — MET.TR.115 Meteorological bulletins

p. 16-17

comment

95

comment by: Finnish Meteorological Institute

Overall comment:

References between MET.OR, MET.TR, AMC and GM are not correct throughout the



	documents - incorrect numbers and references in text and tables.
response	<i>Not accepted</i>
	The references in MET.OR and MET.TR are aligned.
	The MET.OR text has been realigned during the CRD drafting following some reference changes during the NPA drafting of the MET.TR rules. Please note that Appendix IV to NPA 2014-07 'MET rules of Annex IV — Subpart A of NPA 2013-08 (B)' provides for information only the related MET.OR. However, a note has been added to explicitly clarify that the MET.OR rule text is the one currently proposed in NPA 2013-08 and does not contain the possible changes stemming from the current revision under the CRD process.
comment	137 comment by: SWEDISH TRANSPORT AGENCY
	Change (b) to ...to be transmitted via the AFS shall be encapsulated in the AFTN message format. AFS will include both AFTN, AMHS and CIDIN.
response	<i>Not accepted</i>
	This paragraph is literally transposed from ICAO Annex 3.
comment	237 comment by: CAA CZ
	<p>MET.TR.115 Meteorological bulletins</p> <ul style="list-style-type: none"> - missing term "... in alphanumeric format" - (not necessarily applicable to non-alphanumerical data) - Annex 3, App.10, 2.1.1 and 2.2.2 bring also important points which shall not be omitted in NPA
response	<i>Accepted</i>
	<ul style="list-style-type: none"> — In ICAO Annex 3, there is no reference to non-alphanumerical data. A new GM is proposed to indicate that it applies only to alphanumeric data. — The Agency considers that the justification given in the drafting document (NPA 2014-07 (B)) is still valid. However, these 2 missing paragraphs are proposed to be included in Guidance Material to MET.TR.115.
comment	274 comment by: LEGMC
	References between MET.OR, MET.TR, AMC and GM are not correct throughout the documents - incorrect numbers and references in text and tables.
response	<i>Not accepted</i>
	The references in MET.OR and MET.TR are aligned.
	The MET.OR text has been realigned during the CRD drafting following some reference changes during the NPA drafting of the MET.TR rules. Please note that Appendix IV to NPA 2014-07 'MET rules of Annex IV — Subpart A of NPA 2013-08 (B)' provides for information



only the related MET.OR. However, a note has been added to explicitly clarify that the MET.OR rule text is the one currently proposed in NPA 2013-08 and does not contain the possible changes stemming from the current revision under the CRD process.

comment

287

comment by: *Isavia Ltd.***Overall comment:**

References between MET.OR, MET.TR, AMC and GM are inconsistent throughout the documents - mismatch in numbers and references in text and tables.

response

Not accepted

The references in MET.OR and MET.TR are aligned.

The MET.OR text has been realigned during the CRD drafting following some reference changes during the NPA drafting of the MET.TR rules. Please note that Appendix IV to NPA 2014-07 'MET rules of Annex IV — Subpart A of NPA 2013-08 (B)' provides for information only the related MET.OR. However, a note has been added to explicitly clarify that the MET.OR rule text is the one currently proposed in NPA 2013-08 and does not contain the possible changes stemming from the current revision under the CRD process.

3. Proposed amendments — 3.1. Draft Regulation (Draft EASA Opinion) — Draft Opinion — Annex IV — SPECIFIC REQUIREMENTS FOR THE PROVISION OF METEOROLOGICAL SERVICES (Part-MET), SUBPART B — TECHNICAL REQUIREMENTS FOR THE PROVISION OF METEOROLOGICAL SERVICES (MET.TR), Section 2 — Specific requirements — 1. Chapter 1 — Technical requirements for meteorological watch offices — MET.TR.205 SIGMET messages

p. 17

comment

4

comment by: *Jan Sondij*

(c) Only one of the phenomena listed in Table 1 of Appendix 1 shall be included in a SIGMET message, using the appropriate abbreviations.

Comment: in table 1 only abbreviations are given, not the descriptions. Note that abbreviations plus descriptions are mentioned in e.g. AMC2 MET.TR.250(a)(12). Proposal to include this information in an AMC to MET.TR.205 for reasons of consistency.

response

Not accepted

The abbreviations alone are considered sufficient.

comment

238

comment by: *CAA CZ*

MET.TR.205 (c): missing term "... at cruising levels ..." (see Annex 3, App.6, 1.1.4)

MET.TR.205 (d)(1): missing term "extensible markup language (XML)" (see Annex 3, App.6, 1.1.7) - (Note GML is only subset of XML; XML part of message conveys the important meteorological information, but GML part only its georeference)

response

Not accepted

- **MET.TR.205(c):** The abbreviations are based on the phenomena and not on the cruising levels.
- **MET.TR.205(d)(1):** GML is the agreed standard for digital exchange of METAR, SPECI, TAF and SIGMET and referenced in the regulation without indicating the markup language, XML. A specific Guidance Material is added to the revised text to explain why only GML is used in MET rules.

comment

251

comment by: *IMO*

(b)

SIGMET numbering - MET.TR.205 SIGMET messages justification

STRONG DISAGREEMENT

– issuing SIGMET by letter+numbers by is very helpful to operators – EG. TS in S-Finland and MTW in S-Norway (same FAB) get numbers A01 and B01 – local operators (which are users too) in Norway do not care about TS in Finland and vice versa and only have to search for SIGMET with the letter A or B.

It is simpler also for the forecaster to work with letter+numbers.

As the FABs get larger this will be more common that there will many SIGMETs valid – if there is only a single number sequence then the local operator will have to read through a ton of SIGMETs, irrelevant to their area. Unless you are aiming to move everything to a visual display only really soon. Also inquiries afterwards are made simpler by separating the SIGMETs.

response

Accepted

The Agency proposes to delete the reference to ‘independent of SIGMET type’ and to specify the different types, header and character number that a SIGMET message should contain. In addition, it proposes two additional Acceptable Means of Compliance. Please see MET.TR.205 and the related AMCs to it. The Agency hopes that this will clarify the intent of ICAO Annex 3 provision.

comment

330

comment by: *ENAC Italy*

MET.TR.205 (b): We don’t agree with the added text “*independent of SIGMET type*”: in our opinion the sequence number is to be dependent on SIGMET type. In fact VA SIGMET are distinguished from WS SIGMET by a different heading.

response

Accepted

The Agency proposes to delete the reference to ‘independent of SIGMET type’ and to specify the different types, header and character number that a SIGMET message should contain. In addition, it proposes two additional Acceptable Means of Compliance. Please see MET.TR.205 and the related AMCs to it. The Agency hopes that this will clarify the intent of ICAO Annex 3 provision.



comment	344	comment by: ENAV
	<p>Page 17, MET.TR.205 (b) - We don't agree with the added text "<i>independent of SIGMET type</i>": in our opinion the sequence number is to be dependent on SIGMET type. In fact VA SIGMET are distinguished from WS SIGMET by a different heading</p>	
response	<p><i>Accepted</i></p> <p>The Agency proposes to delete the reference to 'independent of SIGMET type' and to specify the different types, header and character number that a SIGMET message should contain. In addition, it proposes two additional Acceptable Means of Compliance. Please see MET.TR.205 and the related AMCs to it. The Agency hopes that this will clarify the intent of ICAO Annex 3 provision.</p>	

3. Proposed amendments — 3.1. Draft Regulation (Draft EASA Opinion) — Draft Opinion — Annex IV — SPECIFIC REQUIREMENTS FOR THE PROVISION OF METEOROLOGICAL SERVICES (Part-MET), SUBPART B — TECHNICAL REQUIREMENTS FOR THE PROVISION OF METEOROLOGICAL SERVICES (MET.TR), Section 2 — Specific requirements — 1. Chapter 1 — Technical requirements for meteorological watch offices — MET.TR.210 AIRMET messages

p. 17

comment	161	comment by: ATC the Netherlands
	<p>(c) Only one of the phenomena listed in Table 1 of Appendix 1 shall be included in a SIGMET message, using the appropriate abbreviations.</p> <p>Comment: in table 1 only abbreviations are given, <u>not</u> the descriptions. Note that abbreviations <u>plus</u> descriptions are mentioned in e.g. AMC2 MET.TR.250(a)(12). Proposal to include this information in an AMC to MET.TR.205 for reasons of consistency.</p>	
response	<p><i>Not accepted</i></p> <p>The abbreviations alone are considered sufficient.</p>	
comment	239	comment by: CAA CZ
	<p>MET.TR.210 (c) : missing term "at cruising levels" (see Annex 3, App.6, 2.1.4)</p> <p>MET.TR.210 (c): Note from Annex 3, App. 6, 2.1.5: "The specifications for SIGMET information which is also applicable to low-level flights are given in 1.1.4" is missing in this NPA. This note means that SIGMET phenomena in low levels shall be applicable for AIRMETs as well. Such note seems to be important for correct interpretation of Table 1 from this NPA Appendices.</p>	
response	<p><i>Not accepted</i></p> <p>— A reference to cruising levels is not relevant as the abbreviations are based on the</p>	



phenomena but not on the cruising levels.

- The Agency considers that the justification provided in the drafting document is still valid: ‘this paragraph is not transposed as it is considered redundant with the template in the table.’

comment

333

comment by: ENAC Italy

We think that the deleted (according to the rationale of NPA 2014-07 (B), page 157) sentence of Annex 3, Appendix 6, par. 2.1.2, regarding AIRMET: “*The meteorological watch offices whose area of responsibility encompasses more than one FIR and/or CTA shall issue separate AIRMET messages for each FIR and/or CTA within its area of responsibility.*” should be included in this segment because the requirement isn’t covered by any other rule within the document.

response

Accepted

This is correct. The sentence proposed to be included for AIRMET is only included for SIGMET in AMC1 MET.OR.205(a). The Agency will make this current AMC (for SIGMET) applicable also for AIRMET.

comment

345

comment by: ENAV

Page 17, MET.TR.210 - We think that the deleted (according to the rationale of NPA 2014-07 (B), page 157) sentence of Annex 3, Appendix 6, par. 2.1.2, regarding AIRMET: “*The meteorological watch offices whose area of responsibility encompasses more than one FIR and/or CTA shall issue separate AIRMET messages for each FIR and/or CTA within its area of responsibility.*” should be included in this segment because the requirement isn’t covered by any other rule within the document.

response

Accepted

This is correct. The sentence proposed to be included for AIRMET is only included for SIGMET in AMC1 MET.OR.205(a). The Agency will make this current AMC (for SIGMET) applicable also for AIRMET.

comment

395

comment by: BAF-M.Jancokova

- Page 17 MET.TR.210: why not also XML

response

Not accepted

The Agency assumes that the comment is made on MET.TR.205 and not MET.TR.215. GML is the agreed standard for digital exchange of METAR, SPECI, TAF and SIGMET and referenced in the regulation without indicating the markup language, XML. A specific Guidance Material is added to the revised text to explain why only GML is used in MET rules.

3. Proposed amendments — 3.1. Draft Regulation (Draft EASA Opinion) — Draft Opinion — Annex IV — SPECIFIC REQUIREMENTS FOR THE PROVISION OF METEOROLOGICAL SERVICES (Part-MET), SUBPART B — TECHNICAL REQUIREMENTS FOR THE PROVISION OF METEOROLOGICAL

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SERVICES (MET.TR), Section 2 — Specific requirements — 1. Chapter 1 — Technical requirements for meteorological watch offices — MET.TR.215 Area forecasts for low-level flights

comment	10	comment by: Jan Sondij		
	<p>MET.TR.215 Area forecasts for low-level flights.</p> <p>Comment: This TR seems to belong to MET.OR.230 Area forecasts for low-level flights, and NOT to MET.OR.215.</p>			
response	<p><i>Not accepted</i></p> <p>MET.TR.215 'Area forecasts for low-level flights' is aligned with the CRD version of MET.OR.215 'Area forecasts for low-level flights'.</p> <p>The MET.OR text has been realigned during the CRD drafting following some reference changes during the NPA drafting of the MET.TR rules.</p> <p>Please note that Appendix IV to NPA 2014-07 ‘MET rules of Annex IV — Subpart A of NPA 2013-08 (B)’ provides, for information only, the related MET.OR. However, a note has been added to explicitly clarify that the MET.OR rule text is the one currently proposed in NPA 2013-08 and does not contain the possible changes stemming from the current revision under the CRD process.</p>			
comment	119	comment by: Belgocontrol		
	<table><tr><td>MET.TR.215 (c)</td><td>This TR is transposed from Part 1 of ICAO Annex 3 - §6.5.2; Unfortunately no traceability for this has been made available in NPA (B) or in a separate NPA (C) or updated 2013-08 NPA (e)</td></tr></table>		MET.TR.215 (c)	This TR is transposed from Part 1 of ICAO Annex 3 - §6.5.2; Unfortunately no traceability for this has been made available in NPA (B) or in a separate NPA (C) or updated 2013-08 NPA (e)
MET.TR.215 (c)	This TR is transposed from Part 1 of ICAO Annex 3 - §6.5.2; Unfortunately no traceability for this has been made available in NPA (B) or in a separate NPA (C) or updated 2013-08 NPA (e)			
response	<p><i>Noted</i></p> <p>This statement is correct. The traceability for the chapters of Part I that were identified to be transposed during the MET.TR phase is missing because the drafting document only contains the Appendices to Part II of ICAO Annex 3 and not Part I. This is due to the fact that the drafting documents for both MET.OR and MET.TR contain only their respective parts. A consolidated drafting document covering the entire ICAO Annex 3 will be provided at a later stage, for traceability purposes only.</p>			
comment	138	comment by: SWEDISH TRANSPORT AGENCY		
	<p>Issuing an area forecast for low-level flights is not a task for a meteorological watch office according to NPA 2013-08 Annex IV MET.OR.200. Move the content to Chapter 2 Technical requirements for aerodrome meteorological offices in accordance with NPA 2013-08 Annex</p>			



	IV MET.OR.230
response	<p><i>Not accepted</i></p> <p>CRD to NPA 2013-08 (containing the revised NPA text) contains now the requirement on 'area forecasts for low-level flights' in chapter 1 (requirements for meteorological watch offices).</p>
comment	<p>162 comment by: ATC the Netherlands</p> <p>Comment: This TR seems to belong to MET.OR.230 Area forecasts for low-level flights, and NOT to MET.OR.215.</p>
response	<p><i>Not accepted</i></p> <p>MET.TR.215 'Area forecasts for low-level flights' is aligned with the CRD version of MET.OR.215 'Area forecasts for low-level flights'. The MET.OR text has been realigned during the CRD drafting following some reference changes during the NPA drafting of the MET.TR rules. Please note that Appendix IV to NPA 2014-07 'MET rules of Annex IV — Subpart A of NPA 2013-08 (B)' provides for information only the related MET.OR. However, a note has been added to explicitly clarify that the MET.OR rule text is the one currently proposed in NPA 2013-08 and does not contain the possible changes stemming from the current revision under the CRD process.</p>
comment	<p>240 comment by: CAA CZ</p> <p>MET.TR.215 (b)(1) does not cover the text of Annex 3, App. 2, 2.2.1 and. 2.1.2 (as stated in part (B) of this NPA. These articles are important for uniformity of products and should be mentioned explicitly in this NPA.</p>
response	<p><i>Accepted</i></p> <p>Accepted. The elements are now included in MET.TR.215(b) and no reference to table 1 of Appendix 1 is made.</p>
comment	<p>336 comment by: ENAC Italy</p> <p>MET TR.215 (b)(2): The list of elements reported in MET TR.215 (b)(2) is to be integrated with "surface wind".</p>
response	<p><i>Accepted</i></p> <p>'Surface wind' is now included in the revised text.</p>
comment	<p>343 comment by: ENAV</p> <p>Page 18, MET TR.215 (b)(2) - The list of elements reported in MET TR.215 (b)(2) is to be integrated with "surface wind".</p>
response	<p><i>Accepted</i></p> <p>'Surface wind' is now included in the revised text.</p>



comment	396	comment by: BAF-M.Jancokova
	- Page 17 MET.TR.215: metric values are missing, definition of "competent authority" is missing	
response	<p><i>Not accepted</i></p> <ul style="list-style-type: none"> metric values: there are no metric values as the figures are given for flight levels. Competent authority: the term is explained in Article 4 of the draft regulation on ATM/ANS provider (NPA 2013-08 and CRD to NPA 2013-08). 	

3. Proposed amendments — 3.1. Draft Regulation (Draft EASA Opinion) — Draft Opinion — Annex IV — SPECIFIC REQUIREMENTS FOR THE PROVISION OF METEOROLOGICAL SERVICES (Part-MET), SUBPART B — TECHNICAL REQUIREMENTS FOR THE PROVISION OF METEOROLOGICAL SERVICES (MET.TR), Section 2 — Specific requirements — 2. Chapter 2 — Technical requirements for aerodrome meteorological offices — MET.TR.220 Forecast and other meteorological information

p. 18-19

comment	11	comment by: Jan Sondij
	<p>MET.TR.220 Forecast and other meteorological information</p> <p>Comment: This TR seems NOT to belong to MET.OR.220 Aerodrome forecasts (TAF).</p> <p>MET.TR.220 (a) refers to MET.OR.240 MET.TR.220 (b), (c), (d), and (e) refer to MET.OR.215 MET.TR.220 (f), (g) and (h) refer to MET.OR.265, but the obligation is put on MET ANSP and as refer to MET.OR.215 MET.TR.220 (i) refers to MET.OR.215. Proposal is to link entire article to MET.OR.215</p>	
response	<p><i>Not accepted</i></p> <p>MET.TR.220 'Forecasts and other meteorological information' is aligned with the CRD version of MET.OR.220 'Forecasts and other meteorological information'. The MET.OR text has been realigned during the CRD drafting following some reference changes during the NPA drafting of the MET.TR rules. Please note that Appendix IV to NPA 2014-07 'MET rules of Annex IV — Subpart A of NPA 2013-08 (B)' provides for information only the related MET.OR. However, a note has been added to explicitly clarify that the MET.OR rule text is the one currently proposed in NPA 2013-08 and does not contain the possible changes stemming from the current revision under the CRD process.</p>	
comment	12	comment by: Jan Sondij
	<p>MET.TR.220 (g) refers two times to MET.OR.240(a)(1) and this seems incorrect and should be MET.OR.265. MET.TR.240 (g) refers to MET.230(b) and this is incorrect as the content in this article (both OR and TR) has no link at all with the subject of MET.TR.240. It is not clear to me what the correct reference should be.</p>	



response

Accepted

Accepted and corrected.

comment

120

comment by: *Belgocontrol*MET.TR.220
(a)

This TR is transposed from Part 1 of ICAO Annex 3 - §9.1.2; Unfortunately no traceability for this has been made available in NPA (B) or in a separate NPA (C) or updated 2013-08 NPA (e)

MET.TR.220
(e)

This TR is transposed from Part 1 of ICAO Annex 3 - §9.3.1; Unfortunately no traceability for this has been made available in NPA (B) or in a separate NPA (C) or updated 2013-08 NPA (e)

MET.TR.220
(f) ... (i)

This TR is transposed from Part 1 of ICAO Annex 3 - §xxx; Unfortunately no traceability for this has been made available in NPA (B) or in a separate NPA (C) or updated 2013-08 NPA (e)

response

Noted

This statement is correct. The traceability for the chapters of Part I that were identified to be transposed during the MET.TR phase is missing because the drafting document only contains the Appendices to Part II of ICAO Annex 3 and not Part I. This is due to the fact that the drafting documents for both MET.OR and MET.TR contain only their respective parts. A consolidated drafting document covering the entire ICAO Annex 3 will be provided at a later stage, for traceability purposes only.

comment

139

comment by: *SWEDISH TRANSPORT AGENCY*

(b) information to be issued on request i.e to facilitate search and rescue operation has not been transposed as TR, AMC or GM. Sweden propose this is taken care of at least as GM.

response

Accepted

Accepted and inserted as GM2 MET.TR.220(b).

comment

140

comment by: *SWEDISH TRANSPORT AGENCY*

(e) Include GAMET and AIRMET in flight documentation.

response

Partially accepted

AIRMET is included in the revised text.

GAMET is not transposed as the approach taken by the Agency is to not cover GAMET at this stage. The Agency's position is to not regulate GAMET at European level at this stage because it is understood that GAMET is not uniformly implemented in Europe. ICAO Annex 3



does not oblige Contracting States to issue forecast for low-level flight in the form of GAMET, but only stipulates that, if they issue forecast for low-level flight in abbreviated plain language, the GAMET format shall be used in accordance with ICAO provisions. Therefore, the Agency considers that the proposed rules on low-level forecasts which enable the competent authority to decide on the issuance of these types of forecast based on traffic density and user requirements are sufficient as this may include GAMET, as well as other forms of low-level flights forecasts. The issuance and form of the low-level flight forecasts is left to the decision of the competent authority. Every Member State can still decide if it wishes to issue low-level forecasts in the form of a GAMET.

comment

163

comment by: ATC the Netherlands

Comment: This TR seems NOT to belong to MET.OR.220 Areodrome forecasts (TAF).
 MET.TR.220 (a) refers to MET.OR.240
 MET.TR.220 (b), (c), (d), and (e) refer to MET.OR.215
 MET.TR.220 (f), (g) and (h) refer to MET.OR.265, but the obligation is put on MET ANSP and as refer to MET.OR.215
 MET.TR.220 (i) refers to MET.OR.215.
 Proposal is to link entire article to MET.OR.215
 MET.TR.220 (g) refers two times to MET.OR.240(a)(1) and this seems incorrect and should be MET.OR.265.
 MET.TR.240 (g) refers to MET.230(b) and this is incorrect as the content in this article (both OR and TR) has no link at all with the subject of MET.TR.240. It is not clear what the correct reference should be.

response

Not accepted

MET.TR.220 'Forecasts and other meteorological information' is aligned with the CRD version of MET.OR.220 'Forecasts and other meteorological information'. The MET.OR text has been realigned during the CRD drafting following some reference changes during the NPA drafting of the MET.TR rules. Please note that Appendix IV to NPA 2014-07 'MET rules of Annex IV — Subpart A of NPA 2013-08 (B)' provides for information only the related MET.OR. However, a note has been added to explicitly clarify that the MET.OR rule text is the one currently proposed in NPA 2013-08 and does not contain the possible changes stemming from the current revision under the CRD process.

comment

241

comment by: CAA CZ

MET.TR.220 (d)(5) (5) "*height indications to en route meteorological conditions shall be expressed @ and all references to aerodrome meteorological conditions shall be expressed in height above the aerodrome elevation.* "
 - missing: @="in flight levels" (see NPA part (B) and Annex 3, App. 8, 4.2.3 a))

response

Not accepted

NPA part (B) indicates that this term is transposed in AMC1 MET.TR.220(d)(5), therefore MET.TR.220(d)(5) is correct.

comment

254

comment by: MeteoSwiss



response	<p><u>MET.TR.220 (a) (4)</u> Editorial note: The word „and“ doesn't make sense and is unnecessary</p>	
	<p><i>Accepted</i></p> <p>Yes this is correct and is now deleted – the “and” should be in (a)(3) above</p>	
comment	255	comment by: <i>MeteoSwiss</i>
response	<p><u>MET.TR.220(e) und AMC.MET.TR.220(e)</u> (5) flight documentation should also contain AIRMET ((5) AIRMET and SIGMET information....) and LLSWC ((2) SIGWX phenomena, including for low level-flights). Moreover in AMC.MET.TR.220(e) the content of the flight documentation for low-level flights are outlined.</p>	
	<p><i>Accepted</i></p> <p>AIRMET included. Low-flights are covered in MET.TR.215(b)</p>	
comment	291	comment by: <i>European Transport Workers Federation - ETF</i>
response	<p>The meteorological information to be provided to air traffic services are not tackled especially with regards to the forecasts. ETF proposes to add a requirement as follows : Meteorological information to be provided to the air traffic services shall include at least the relevant forecasts and observations for the area of responsibility of each ATS unit considered. ETF reminds EASA that the MET provider and the ATS provider are often not one and the same.</p>	
	<p><i>Accepted</i></p> <p>Provisions of Appendix 9 of ICAO Annex 3 will be reinstated in the draft rules, including the information in point 1.</p>	
comment	377	comment by: <i>Météo-France</i>
response	<p>(d) (3) “selected from the data sets received from a WAFC” is missing. The right sentence is: wind and temperature data selected from the data sets received from a WAFC shall be depicted in a sufficiently dense latitude/longitude grid;</p>	
	<p><i>Accepted</i></p> <p>Now included in the revised text (this was a copy/paste error as the drafting document contained this)</p>	
comment	378	comment by: <i>Météo-France</i>
response	<p>(e)(3) “or SPECI” is missing</p>	



	<p>The right sentence is: METAR or SPECI for the aerodrome of departure and intended landing, and for take off, en-route and destination alternate aerodromes.</p> <p>Rationale : SPECI is no more used in Europe but is still used in other ICAO regions.</p>
response	<p><i>Accepted</i></p> <p>Accepted, SPECI is reintroduced in this paragraph: 'or , when issued, SPECI'...</p>

3. Proposed amendments — 3.1. Draft Regulation (Draft EASA Opinion) — Draft Opinion — Annex IV — SPECIFIC REQUIREMENTS FOR THE PROVISION OF METEOROLOGICAL SERVICES (Part-MET), SUBPART B — TECHNICAL REQUIREMENTS FOR THE PROVISION OF METEOROLOGICAL SERVICES (MET.TR), Section 2 — Specific requirements — 2. Chapter 2 — Technical requirements for aerodrome meteorological offices — MET.TR.225 Aerodrome forecasts (TAF) p. 19-23

comment	<p>13 comment by: Jan Sondij</p>
	<p>MET.TR.225 Aerodrome forecasts (TAF).</p> <p>Comment: This TR seems to belong to MET.OR.220 Aerodrome forecasts (TAF), and NOT to MET.OR.225.</p>
response	<p><i>Not accepted</i></p> <p>MET.TR.225 'Aerodrome forecasts (TAF)' is aligned with the CRD version of MET.OR.225 'Aerodrome forecasts (TAF)'.</p> <p>The MET.OR text has been realigned during the CRD drafting following some reference changes during the NPA drafting of the MET.TR rules.</p> <p>Please note that Appendix IV to NPA 2014-07 'MET rules of Annex IV — Subpart A of NPA 2013-08 (B)' provides, for information only, the related MET.OR. However, a note has been added to explicitly clarify that the MET.OR rule text is the one currently proposed in NPA 2013-08 and does not contain the possible changes stemming from the current revision under the CRD process.</p>

comment	<p>98 comment by: Finnish Meteorological Institute</p>
	<p>MET.TR.225 (c)</p> <ul style="list-style-type: none"> • Missing reference to AMC1 MET.TR.225(b), AMC-reference is referring to wrong MET.TR.225-section • FMI suggests that TAF is not issued more than one hour earlier than the validity period. If TAF is issued at least 1 hour before, there is a chance that there are no TAFs valid, since the commencement of a new TAF cancels the earlier TAF and when the validity period of the new TAF has not yet started • FMI suggests, that due to operator needs also shorter than 6 hour TAFs are allowed. (if they are not, it increases costs for users) <p>MET.TR.225 (e)(4)(iii)</p> <p>In Annex 3 it is stated as "should", this will deteriorate the MET service to specific user groups. FMI demands this to be changed to SHOULD. If this is not changed, operator needs are not taken into consideration, also the costs of those operators will increase due to need</p>



	of new MET products customized for them.
response	<i>Partially accepted</i>
	— Accepted and changed to AMC1 MET.TR.225(c).
	— Accepted and changed — aligned with 6.2.2 of chapter 6 of ICAO Annex 3.
	— Not accepted. This change needs deeper consideration from the European MET community and should be fixed at the level of ICAO METG.
	MET.TR.225(e)(4)(iii): The upgrade of this recommendation to IR is considered to be of safety significance. The operational significance is estimated at 5 000 ft or minimum sector altitude if higher or no CB/TCU.

comment	121 comment by: <i>Belgocontrol</i>		
	<table border="1"> <tr> <td>MET.TR.225 (c)</td><td>First part of this TR seems to be transposed from the ICAO EUR ANP document; Unfortunately no traceability for this has been made available in NPA (B) or in a separate NPA (C)</td></tr> </table>	MET.TR.225 (c)	First part of this TR seems to be transposed from the ICAO EUR ANP document; Unfortunately no traceability for this has been made available in NPA (B) or in a separate NPA (C)
MET.TR.225 (c)	First part of this TR seems to be transposed from the ICAO EUR ANP document; Unfortunately no traceability for this has been made available in NPA (B) or in a separate NPA (C)		
response	<i>Noted</i>		
	Correct — No rule comparison between the rule text and the ICAO EUR ANP was made.		

comment	141 comment by: <i>SWEDISH TRANSPORT AGENCY</i>
	(f) (4) Check references in the last sentence " in accordance with (4) above or the validity period should be subdivided in accordanc with (6) below. There seems to be no (4) above neither (6) below.
response	<i>Accepted</i>
	This has now been corrected in the revised text.

comment	164 comment by: <i>ATC the Netherlands</i>
	Comment: This TR seems to belong to MET.OR.220 Areodrome forecasts (TAF), and NOT to MET.OR.225.
response	<i>Not accepted</i>
	MET.TR.225 'Aerodrome Foracasts (TAF)' is aligned with the CRD version of MET.OR.225 'Aerodrome Forecasts (TAF)'.



The MET.OR text has been realigned during the CRD drafting following some reference changes during the NPA drafting of the MET.TR rules.

Please note that Appendix IV to NPA 2014-07 'MET rules of Annex IV — Subpart A of NPA 2013-08 (B)' provides for information only the related MET.OR. However, a note has been added to explicitly clarify that the MET.OR rule text is the one currently proposed in NPA 2013-08 and does not contain the possible changes stemming from the current revision under the CRD process.

comment

235

comment by: IMO

MET.TR.225 (c)

NOTE: There is a flip-flop between AMD75 and AMD76 on the time requirement in issuing TAFs. That is in AMD75 there was a **Recommendation** that TAF to be issued at least one hour before but in AMD76 it is set as a **Requirement** that TAF should be issued less than one hour before.

Missing reference to AMC1 MET.TR.225(b), AMC-reference is referring to wrong MET.TR.225-section.

Inconsistent with AMC1 MET.TR.225(b) (d) which is the wording of Annex 3. The use of shall prohibits the possible use of a 6-hour TAF.

response

Accepted

Accepted and changed — aligned with 6.2.2 of chapter 6 of ICAO Annex 3.

Accepted and corrected in the revised text.

comment

242

comment by: CAA CZ

MET.TR.225 (c) *"The period of validity of a routine TAF shall be either 9 hours or 24 or 30 hours and shall be filed for transmission **at least 1 hour before** the commencement of their period of validity."*

- against Annex 3 original: **"not earlier than one hour prior to the beginning of their validity period"** (see Annex 3, App.10, 2.1.5)

response

Accepted

Accepted and changed – aligned with 6.2.2 of chapter 6 of ICAO Annex 3.

comment

261

comment by: Northern Europe Aviation Meteorology Consortium (NAMCon)

The current NPA 2014-07 (A) text for the time of issuance of TAFs is directly contradicting Annex 3 AMDT76, which states that TAFs shall not be issued more than one hour prior to validity. The current NPA states the opposite that TAFs shall be issued at least one hour in advance. This has several negative impacts on the quality of the TAF and the arrangement of work at MET service providers.



	NAMCon demands that the text be changed according to Annex 3 AMDT76.
response	<i>Accepted</i>
	Accepted and changed – aligned with 6.2.2 of chapter 6 of ICAO Annex 3.
comment	265 comment by: CAA-Norway
	(c) The period of validity of a routine TAF shall be either 9 hours or 24 or 30 hours – This applies to many small airports in Norway where some TAF are issued with validity of 6 hours due to practical reasons, opening hours e.g We suggest there should be an opportunity to issue TAF for 6, 9 hours or 24 or 30 hours
response	<i>Not accepted</i>
	Whereas the Agency recognises the concern, it considers that it is not appropriate to change the figures that are currently now given in ICAO Annex 3. It is understood that there is currently no conclusion on this issue at ICAO METG level as it is difficult to understand how such flexibility could be reflected in ICAO provisions. The Agency considers that this issue does not have any safety impact and, therefore, that a European provision on this matter should be envisaged once agreement is reach at ICAO level.
comment	275 comment by: LEGMC
	MET.TR.225 Aerodrome forecasts (TAF) (c) Contridiction with ICAO Annex3 AMD76, 6.2., that states that the TAF “ <i>shall be issued at a specific time not earlier than one hour prior to the beginning of its validity period</i> ” and EUR ANP Part VI – MET, paragraph 16, that states: „ <i>The scheduled international exchange of TAF should be completed between 30 and 60 minutes before commencement of the period of validity</i> ”.
response	<i>Accepted</i>
	Accepted and changed – aligned with 6.2.2 of chapter 6 of ICAO Annex 3.
comment	339 comment by: ENAC Italy
	Page 20, MET.TR.225 (c): Please note that the text requiring that TAF “ <i>shall be filed for transmission at least 1 hour before the commencement of their period of validity</i> ”, upgraded from recommendation to IR, is not aligned with the relevant text of Annex 3 Amd. 76 (see Appendix 10, par. 2.1.2), which states that TAF “ <i>should be filed for transmission not earlier than one hour prior to the beginning of their validity period</i> ”.
response	<i>Accepted</i>
	Accepted and changed – aligned with 6.2.2 of chapter 6 of ICAO Annex 3.
comment	350 comment by: ENAV



response	<p>Page 20, MET.TR.225 (c) - Please note that the text requiring that TAF “<i>shall be filed for transmission at least 1 hour before the commencement of their period of validity</i>”, upgraded from recommendation to IR, is not aligned with the relevant text of Annex 3 Amd. 76 (see Appendix 10, par. 2.1.2), which states that TAF “<i>should be filed for transmission not earlier than one hour prior to the beginning of their validity period</i>”</p> <p><i>Accepted</i></p> <p>Accepted and changed – aligned with 6.2.2 of chapter 6 of ICAO Annex 3.</p>
comment	<p>370 comment by: <i>Danish Meteorological Institute(DMI)</i></p> <p>Regarding: c) The period of validity of a routine TAF shall be either 9 hours or 24 or 30 hours and shall be filed for transmission at least 1 hour before the commencement of their period of validity.</p> <p>Many smaller European airports has limited opening hours, some down to a few hours a day. Here it seems like a waste of time and resources to issuing a 9 hour TAF and it plays no part in increase security. The Danish view is, that it is desirable to be able to issue a short TAF valid less than 9 hours when the reason for this is airport opening hours.</p> <p>TAF transmission at least 1 hour before the commencement of their period of validityis are in direct conflict with ICAO Annex 3, which says that TAF may not be issued more than 1 hour before the validity period.</p>
response	<p><i>Partially accepted</i></p> <p>Whereas the Agency recognises the concern, it considers that it is not appropriate to change the figures that are currently now given in ICAO Annex 3. It is understood that there is currently no conclusion on this issue at ICAO METG level as it is difficult to understand how such flexibility could be reflected in ICAO provisions. The Agency considers that this issue does not have any safety impact and therefore that a European provision on this matter should be envisaged once agreement is reach at ICAO level.</p> <p>Accepted and changed – aligned with 6.2.2 of chapter 6 of ICAO Annex 3.</p>
comment	<p>379 comment by: <i>Météo-France</i></p> <p>(e) (3) (K) “given in AMC1 MET.TR.255” is missing The right sentence is : other weather phenomena, given in AMC1 MET.TR.255 as agreed by the aerodrome meteorological office with the ATS units and operators concerned.</p>
response	<p><i>Accepted</i></p> <p>Accepted and changed in the revised text.</p>
comment	<p>397 comment by: <i>BAF-M.Jancokova</i></p> <p>- Page 21 MET.TR.225 i: ‘<i>Vertical visibility shall be forecasted</i>’: (Should remain as recommended practice in ICAO Annex 3)</p>



response	<p><i>Not accepted</i></p> <p>In Europe, it is current practice that cloud amount are forecasted using these abbreviations as necessary. The same applies for the vertical visibility and the layers of cloud under the same conditions. Therefore, this recommendation is upgraded to IR.</p>
comment	<p>398 comment by: BAF-M.Jancokova</p> <p>- Page 20 MET.TR.225 c: 'at least 1 hour' differs from ICAO Annex 3</p>
response	<p><i>Accepted</i></p> <p>Accepted and changed in the revised text.</p>

3. Proposed amendments — 3.1. Draft Regulation (Draft EASA Opinion) — Draft Opinion — Annex IV — SPECIFIC REQUIREMENTS FOR THE PROVISION OF METEOROLOGICAL SERVICES (Part-MET), SUBPART B — TECHNICAL REQUIREMENTS FOR THE PROVISION OF METEOROLOGICAL SERVICES (MET.TR), Section 2 — Specific requirements — 2. Chapter 2 — Technical requirements for aerodrome meteorological offices — MET.TR.230 Aerodrome forecasts — Landing (TREND) p. 23-25

comment	<p>6 comment by: Jan Sondij</p> <p>(4) Clouds (iii): definitions of "CAVOK" and "NSC" are missing in list of definitions. Consider to include these in the list of definitions.</p>
response	<p><i>Not accepted</i></p> <p>There is no need to define those terms as they are included in the Appendix containing the abbreviations used and their use is described by the rules.</p>
comment	<p>14 comment by: Jan Sondij</p> <p>MET.TR.230 Aerodrome forecasts - Landing (TREND).</p> <p>Comment: This TR seems to belong to MET.OR.225 Aerodrome forecasts - Landing (TREND), and NOT to MET.OR.230.</p>
response	<p><i>Not accepted</i></p> <p>MET.TR.230 'Aerodrome forecasts — Landing (TREND)' is aligned with the CRD version of MET.OR.230 'Aerodrome forecasts — Landing (TREND)'.</p> <p>The MET.OR text has been realigned during the CRD drafting following some reference changes during the NPA drafting of the MET.TR rules.</p> <p>Please note that Appendix IV to NPA 2014-07 'MET rules of Annex IV — Subpart A of NPA 2013-08 (B)' provides, for information only, the related MET.OR. However, a note has been added to explicitly clarify that the MET.OR rule text is the one currently proposed in NPA</p>



2013-08 and **does not contain the possible changes** stemming from the current revision under the CRD process.

comment 99 comment by: *Finnish Meteorological Institute*

MET.TR.230 (c)(1)(iii)

Operational significance should be agreed by the aerodrome meteorological office with the ATS units and operators concerned.

response *Not accepted*

AMC1 MET.TR.225(c)(1) already covers this and transposed 2.2.2 (c) — second sentence — of Appendix 5 to ICAO Annex 3.

comment 165 comment by: *ATC the Netherlands*

(4) Clouds (iii): definitions of "CAVOK" and "NSC" are missing in list of definitions. Consider to include these in the list of definitions
Comment: This TR seems to belong to MET.OR.225 Aerodrome forecasts - Landing (TREND), and NOT to MET.OR.230.

response *Not accepted*

There is no need to define those terms as they are included in the abbreviations list and their use is described by the rules.

Not accepted. MET.TR.230 'Aerodrome forecasts — Landing (TREND)' is aligned with the CRD version of MET.OR.230 'Aerodrome forecasts — Landing (TREND)'. The MET.OR text has been realigned during the CRD drafting following some reference changes during the NPA drafting of the MET.TR rules. Please note that Appendix IV to NPA 2014-07 'MET rules of Annex IV — Subpart A of NPA 2013-08 (B)' provides, for information only, the related MET.OR. However, a note has been added to explicitly clarify that the MET.OR rule text is the one currently proposed in NPA 2013-08 and does not contain the possible changes stemming from the current revision under the CRD process.

comment 263 comment by: *Northern Europe Aviation Meteorology Consortium (NAMCon)*

response *Noted*

No comment was posted here.

comment 341 comment by: *ENAV*

Page 23, MET.TR.230 (c)(2) - We do agree with the deletion, in this sub-segment as well as and anywhere else in the regulation, of the reference to the TREND as appended to local routine or special report, which figured in the note of par. 2.2.3 of Appendix 5 of Annex 3. Consequently we think that the text of GM2 MET.OR.225 (page 127) should also be amended



as follows:

"A trend forecast is understood as being a concise statement of the expected significant changes in the meteorological conditions at that aerodrome to be appended to a ~~local routine or local special report~~, or a METAR or SPECI. The period of validity of a trend forecast shall be two hours from the time of the report which forms part of the landing forecast."

Finally, the reference to the TREND should also be deleted in Table 4 of Appendix 5 and in examples in GM1 MET.TR.250(b) & (c) and GM2 MET.TR.250(b)(1) related to local routine or special reports

response

Accepted

Accepted and changed in MET.OR.230.

comment

342

comment by: ENAC Italy

MET.TR.230(c)(2): We do agree with the deletion, in this sub-segment as well as and anywhere else in the regulation, of the reference to the TREND as appended to local routine or special report, which figured in the note of par. 2.2.3 of Appendix 5 of Annex 3. Consequently we think that the text of GM2 MET.OR.225 (page 127) should also be amended as follows:

"A trend forecast is understood as being a concise statement of the expected significant changes in the meteorological conditions at that aerodrome to be appended to a METAR or SPECI. The period of validity of a trend forecast shall be two hours from the time of the report which forms part of the landing forecast."

Finally, the reference to the TREND should also be deleted in Table 4 of Appendix 5 and in examples in GM1 MET.TR.250(b) & (c) and GM2 MET.TR.250(b)(1) related to local routine or special reports.

response

Accepted

Accepted and changed in MET.OR.230.

comment

380

comment by: Météo-France

(c) (3) (i) (B)

"including showers thereof" is missing

The right sentence is: moderate or heavy precipitation (*including showers thereof*)

response

Accepted

Accepted and included.

3. Proposed amendments — 3.1. Draft Regulation (Draft EASA Opinion) — Draft Opinion — Annex IV — SPECIFIC REQUIREMENTS FOR THE PROVISION OF METEOROLOGICAL SERVICES (Part-MET), SUBPART B — TECHNICAL REQUIREMENTS FOR THE PROVISION OF METEOROLOGICAL SERVICES (MET.TR), Section 2 — Specific requirements — 2. Chapter 2 — Technical requirements for aerodrome meteorological offices — MET.TR.235 Forecasts — Take-off

p. 25

comment

15

comment by: Jan Sondij



	<p>MET.TR.235 Forecasts - Take-off.</p> <p>Comment: This TR seems to belong to MET.OR.226 Forecasts - Take-off, and NOT to MET.OR.235.</p>		
response	<p><i>Not accepted</i></p> <p>MET.TR.235 'Forecasts — Take-off' is aligned with the CRD version of MET.OR.235 'Forecasts — Take-off'.</p> <p>The MET.OR text has been realigned during the CRD drafting following some reference changes during the NPA drafting of the MET.TR rules.</p> <p>Please note that Appendix IV to NPA 2014-07 'MET rules of Annex IV — Subpart A of NPA 2013-08 (B)' provides, for information only, the related MET.OR. However, a note has been added to explicitly clarify that the MET.OR rule text is the one currently proposed in NPA 2013-08 and does not contain the possible changes stemming from the current revision under the CRD process.</p>		
comment	<p>100 comment by: Finnish Meteorological Institute</p> <p>MET.TR.235 and MET.OR.226, wrong referencing</p>		
response	<p><i>Not accepted</i></p> <p>Not accepted.</p> <p>MET.TR.235 'Forecasts — Take-off' is aligned with the CRD version of MET.OR.235 'Forecasts — Take-off'.</p> <p>The MET.OR text has been realigned during the CRD drafting following some reference changes during the NPA drafting of the MET.TR rules.</p> <p>Please note that Appendix IV to NPA 2014-07 'MET rules of Annex IV — Subpart A of NPA 2013-08 (B)' provides for information only the related MET.OR. However, a note has been added to explicitly clarify that the MET.OR rule text is the one currently proposed in NPA 2013-08 and does not contain the possible changes stemming from the current revision under the CRD process.</p>		
comment	<p>122 comment by: Belgocontrol</p> <table border="1"> <tr> <td>MET.TR.235 (a)</td><td>This TR is transposed from Part 1 of ICAO Annex 3 - §xxx; Unfortunately no traceability for this has been made available in NPA (B) or in a separate NPA (C) or updated 2013-08 NPA (e)</td></tr> </table>	MET.TR.235 (a)	This TR is transposed from Part 1 of ICAO Annex 3 - §xxx; Unfortunately no traceability for this has been made available in NPA (B) or in a separate NPA (C) or updated 2013-08 NPA (e)
MET.TR.235 (a)	This TR is transposed from Part 1 of ICAO Annex 3 - §xxx; Unfortunately no traceability for this has been made available in NPA (B) or in a separate NPA (C) or updated 2013-08 NPA (e)		
response	<p><i>Noted</i></p>		



This statement is correct, the traceability for the chapters of Part I that were identified to be transposed during the MET.TR phase is missing because the drafting document only contains the Appendices to Part II of ICAO Annex 3 and not Part I. This is due to the fact that the drafting documents for both MET.OR and MET.TR contain only their respective parts. A consolidated drafting document covering the entire ICAO Annex 3 will be provided at a later stage, for traceability purposes only.

comment

166

comment by: ATC the Netherlands

Comment: This TR seems to belong to MET.OR.226 Forecasts - Take-off, and NOT to MET.OR.235.

response

Not accepted

MET.TR.235 'Forecasts — Take-off' is aligned with the CRD version of MET.OR.235 'Forecasts — Take-off'.

The MET.OR text has been realigned during the CRD drafting following some reference changes during the NPA drafting of the MET.TR rules.

Please note that Appendix IV to NPA 2014-07 'MET rules of Annex IV — Subpart A of NPA 2013-08 (B)' provides for information only the related MET.OR. However, a note has been added to explicitly clarify that the MET.OR rule text is the one currently proposed in NPA 2013-08 and does not contain the possible changes stemming from the current revision under the CRD process.

3. Proposed amendments — 3.1. Draft Regulation (Draft EASA Opinion) — Draft Opinion — Annex IV — SPECIFIC REQUIREMENTS FOR THE PROVISION OF METEOROLOGICAL SERVICES (Part-MET), SUBPART B — TECHNICAL REQUIREMENTS FOR THE PROVISION OF METEOROLOGICAL SERVICES (MET.TR), Section 2 — Specific requirements — 2. Chapter 2 — Technical requirements for aerodrome meteorological offices — MET.TR.240 Aerodrome warnings and wind shear warnings and alerts

p. 25

comment

16

comment by: Jan Sondij

MET.TR.240 Aerodrome warnings and wind shear warnings and alerts.

Comment: This TR seems to belong to MET.OR.235 Warnings and alerts, and NOT to MET.OR.240.

response

Not accepted

MET.TR.240 'Aerodrome warnings and wind shear warnings and alerts' is aligned with the CRD version of MET.OR.240 'Aerodrome warnings and wind shear warnings and alerts'.

The MET.OR text has been realigned during the CRD drafting following some reference



changes during the NPA drafting of the MET.TR rules.

Please note that **Appendix IV to NPA 2014-07 'MET rules of Annex IV — Subpart A of NPA 2013-08 (B)'** provides, for information only, the related MET.OR. However, a note has been added to explicitly clarify that the MET.OR rule text is the one currently proposed in NPA 2013-08 and **does not contain the possible changes** stemming from the current revision under the CRD process.

comment

123

comment by: *Belgocontrol*

MET.TR.240 (a)
(b) & (e)

This TR is transposed from Part 1 of ICAO Annex 3 - §xxx; Unfortunately no traceability for this has been made available in NPA (B) or in a separate NPA (C) or updated 2013-08 NPA (e)

response

Noted

This statement is correct, the traceability for the chapters of Part I that were identified to be transposed during the MET.TR phase is missing because the drafting document only contains the Appendices to Part II of ICAO Annex 3 and not Part I. This is due to the fact that the drafting documents for both MET.OR and MET.TR contain only their respective parts. A consolidated drafting document covering the entire ICAO Annex 3 will be provided at a later stage, for traceability purposes only.

comment

167

comment by: *ATC the Netherlands*

Comment: This TR seems to belong to MET.OR.235 Warnings and alerts, and NOT to MET.OR.240.

response

Not accepted

MET.TR.240 'Aerodrome warnings and wind shear warnings and alerts' is aligned with the CRD version of MET.OR.240 'Aerodrome warnings and wind shear warnings and alerts'.

The MET.OR text has been realigned during the CRD drafting following some reference changes during the NPA drafting of the MET.TR rules.

Please note that Appendix IV to NPA 2014-07 'MET rules of Annex IV — Subpart A of NPA 2013-08 (B)' provides for information only the related MET.OR. However, a note has been added to explicitly clarify that the MET.OR rule text is the one currently proposed in NPA 2013-08 and does not contain the possible changes stemming from the current revision under the CRD process.



comment 174

comment by: Jan Sondij

MET.TR.240

It is suggested to include after a) "[where required by the competent authority](#)"

This is in line with ICAO Annex 3 Appendix 6 5.1.1. which states: "[where required by operators and aerodrome services](#)". In this case EASA has made the regulation more stringent than ICAO.

The reason for the proposal is that in some States more sophisticated ways of dealing with aerodrome warnings have been put in place. The proposed standard template will be a step back in service provision, and not cater for the distribution method and the individualistic needs of the various stakeholders. A more detailed explanation is provided below.

In The Netherlands a number of instruments have been put in place to properly deal with aerodrome warnings for Amsterdam Airport Schiphol. Available for Mainport Schiphol is a Probability Forecast Schiphol that describes the weather for the next 30 hours in time steps of 1 (first 7 hours) and 3 hours, and is updated every hour (first 7 hours) or 3 hours. This forecast includes the elements described in the aerodrome forecast. Four times a day a webconference is organized between KNMI and all the Mainport Schiphol stakeholders, of which the 9 o'clock version is a videoconference. A dedicated part of the conference is the impact of weather on operations. Separate working arrangements are in place for the meteorologist to inform the stakeholders (Air Traffic Control, Airport, Airlines) pro-active in cases of forecasted and observed lightning strikes, convective activity, heavy precipitation, and unfavourable wind conditions. The overarching characteristic being that the individual stakeholders are using different thresholds, which are part of the working instructions in the quality management system of KNMI. The proposed template does not cater for these different thresholds, as well as the mean by which the information is provided to the users (either by telephone, or in person via the Meteorological Advisor Mainport Schiphol who is present at ATC Ops Room during situations when weather is expected to have an impact on Mainport Schiphol operations).

An alternative, but less preferred, for the above mentioned proposal is the suggestion to transfer the templates as mentioned under (a) and (c) to the AMC-material. In order to make this possible, it suggested to change the text as follows:

"(a) The aerodrome warnings shall be issued in a standardized manner, including the following elements:

location indicator of the aerodrome,
identification of the type of message,
validity period,
phenomenon,
observed or forecast phenomenon.

(b) The aerodrome warnings shall be provided with a sequence number, which shall correspond to the number of aerodrome warnings issued for the aerodrome since 00.01 UTC on the day concerned.

(c) Wind shear warnings shall be issued in a standardized manner, including the following elements:

location indicator of the aerodrome,
identification of the type of message,
time of origin and validity period,
phenomenon,
observed, reported or forecast phenomenon.

(d) The wind shear warnings shall be provided with a sequence number, which shall correspond to the number of aerodrome warnings issued for the aerodrome since 00.01 UTC



response	<p>on the day concerned.”</p> <p><i>Accepted</i></p> <p>Accepted and changed accordingly.</p>
comment	<p>264 comment by: Northern Europe Aviation Meteorology Consortium (NAMCon)</p> <p>The implementation of aerodrome warnings at all airports, while contributing to aviation safety, should be backed up by a robust definition of the concerned phenomena and it should be accepted that the additional costs for such a service will be borne by the airspace users beyond the agreed RP2 cost allocations.</p>
response	<p><i>Noted</i></p> <p>The Agency takes note of the comment.</p>
comment	<p>277 comment by: LEGMC</p> <p>The text does not state to which aerodromes the warnings shall be issued. Annex 3 Appendix 6, 5.1.1. states that the warnings shall be issued where required by operators or aerodrome services.</p> <p>The implementation of aerodrome warnings at all airports, while contributing to aviation safety, should be backed up by a robust definition of the concerned phenomena and it should be accepted that the additional costs for such a service will be borne by the airspace users beyond the agreed RP2 cost allocations.</p>
response	<p><i>Noted</i></p> <p>The Agency takes note of the comment.</p>
comment	<p>348 comment by: ENAV</p> <p>Page 25, MET TR.240 - In our opinion for sake of clarity it would be preferable to treat aerodrome warnings, wind shear warnings and wind shear alerts in separate segments. The same comment is applicable to all the relevant AMC and GM.</p> <p>In addition, we believe that the attribution to the item “Aerodrome warnings and wind shear warnings and alerts” of the text of AMC2 MET.TR.240(a) (dealing with the reporting of wind shear air-reports in supplementary information of aerodrome observation messages) is not appropriate</p>
response	<p><i>Accepted</i></p> <p>Accepted. The requirement is already divided between warnings, wind shear warnings and alerts.</p>
comment	<p>356 comment by: ENAC Italy</p> <p>In our opinion for sake of clarity it would be preferable to treat aerodrome warnings, wind</p>



response	<p>shear warnings and wind shear alerts in separate segments. The same comment is applicable to all the relevant AMC and GM.</p> <p>In addition, we believe that the attribution to the item “Aerodrome warnings and wind shear warnings and alerts” of the text of AMC2 MET.TR.240(a) (dealing with the reporting of wind shear air-reports in supplementary information of aerodrome observation messages) is not appropriate.</p> <p><i>Accepted</i></p> <p>Accepted. The requirement is already divided between warnings, wind shear warnings and alerts.</p>
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comment	<p>374 comment by: <i>Isavia Ltd.</i></p> <p>MET.TR.240 (Aerodrome warning)</p> <p>The text does not indicate that the aerodrome warning shall be issued based on requirements from operators or aerodrome services.</p>
response	<p><i>Accepted</i></p> <p>MET.TR.240(a) and (b) are now moved to AMC material as if it is not required by operators or aerodrome services, aerodrome warnings could be disseminated differently than required by table 6 of appendix 1.</p>

comment	<p>381 comment by: <i>Météo-France</i></p> <p>(a)</p> <p>“where required by operators or aerodromes services, and shall be disseminated in accordance with local arrangements to those concerned” is missing</p> <p>The right sentence is: The aerodrome warnings shall be issued in accordance with the template in Table 6 of Appendix 1 where required by operators or aerodrome services, and shall be disseminated in accordance with local arrangements to those concerned.</p> <p>cf. §5.1.1 in Annex 3</p>
response	<p><i>Not accepted</i></p> <p>The (a) a, d (b) are moved to AMC material.</p>

3. Proposed amendments — 3.1. Draft Regulation (Draft EASA Opinion) — Draft Opinion — Annex IV — SPECIFIC REQUIREMENTS FOR THE PROVISION OF METEOROLOGICAL SERVICES (Part-MET), SUBPART B — TECHNICAL REQUIREMENTS FOR THE PROVISION OF METEOROLOGICAL SERVICES (MET.TR), Section 2 — Specific requirements — 3. Chapter 3 — Technical requirements for meteorological stations — MET.TR.250 Meteorological reports and other information p. 26-27

comment	<p>7 comment by: <i>Jan Sondij</i></p> <p>MET.TR.250 (b)(2)(iii): Reference MET.TR.252(a)(3)(ii)2) is incorrect and should be either MET.TR.252(a)(3)(ii) or MET.TR.252(a)(3)(ii) (A)/(B)/(C) or combination ;-).</p>
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response

Accepted

Correct – The reference is MET.TR.252(a)(3)(ii)(B) and has been changed in the revised text.

comment

101

comment by: *Finnish Meteorological Institute***MET.TR.250 (b)(2)(iii)**

wrong reference, MET.TR.252(a)(3)(ii)(2) should be MET.TR.252(a)(3)(ii)(B)

MET.TR.250 (d)(3)

CORRECTION: "... given in the **latest local report...**" (all local reports)

MET.TR.250 (d)(5)

CORRECTION: "... time of the **latest local report...**" (all local reports)

MISSING PARAGRAPH MET.TR.250 (d)(6):**STRONG DISAGREEMENT**

ICAO Annex 3 Standard "those values which constitute criteria for SPECI" SHALL definitely be included in the local special report (SPECIAL) criteria in EU countries.

JUSTIFICATION (aviation safety and harmonization):

"Criteria for SPECI" are the most important of all local special report criteria.

They are referring to operationally significant changes of aviation weather. Almost all SPECI criteria are used as such in TAF forecasts' change groups.

This is also a Standard Rule in ICAO Annex 3.

Removal of these criteria could have a strong negative impact on aviation safety and quality of MET service. In a worst case scenario this would also lead to a significant variation of aerodrome local reports in EU and globally.

response

Accepted

- Corrected and changed in the revised text.
- Accepted.
- Accepted.
- Accepted and the list of criteria for issuing of local special reports and SPECI is added based on ICAO Annex 3 2.3.2 and 2.3.3.

comment

124

comment by: *Belgocontrol*

MET.TR.250
(a)

This TR is transposed from Part 1 of ICAO Annex 3 - §xxx; Unfortunately no traceability for this has been made available in NPA (B) or in a separate NPA (C) or updated 2013-08 NPA (e)

MET.TR.250
(c)

There is an error in the numbering: no (3) in the list



response *Noted*

This statement is correct, the traceability for the chapters of Part I that were identified to be transposed during the MET.TR phase is missing because the drafting document only contains the Appendices to Part II of ICAO Annex 3 and not Part I. This is due to the fact that the drafting documents for both MET.OR and MET.TR contain only their respective parts. A consolidated drafting document covering the entire ICAO Annex 3 will be provided at a later stage, for traceability purposes only.

comment 151

comment by: Jan Sondij

MET.TR.250(d)(5)

A local special report can be issued after a local routine report or after a local special report. As such include "routine or local", see underneath.

when noise abatement procedures are applied and the variation of the mean surface wind speed (gusts) has changed by 5 kt (2.5 m/s) or more from that at the time of the latest local **routine or local** special report, the mean speed before and/or after the change being 15 kt (7.5 m/s) or more

response *Partially accepted*

Partially accepted. It is proposed to use 'latest local report', which comprises both routine and special local reports.

comment 152

comment by: Jan Sondij

MET.TR.250 (b) Local routine and special reports.

This is a comment not only for MET.TR.250 but for the entire NPA.

In MET.OR.250 the title of this chapter is "local routine and local special reports". This is logic and makes sense as it refers to 2 products, being the "local routine report" and the "local special report".

Throughout the MET.TR the terminology "local routine and special reports" is being used. The proposal is to change this wording throughout the entire NPA into "local routine and **local** special reports" for reasons of clarity and consistency.

response *Accepted*



Accepted and changed in the revised text.

comment

153

comment by: Jan Sondij

MET.TR.250.d

The title is not correct and not in line with the actual meaning of this paragraph, and also not in line with the content of the drafting document table.

This article refers to MET.OR.250d

(d) An aeronautical meteorological station shall establish a list of criteria to provide local special reports in consultation with the appropriate ATS units, operators and others concerned.

So, the meaning is not what should be in a local special report, but what the criteria are for issuing a local special report.

Proposal is to use the title: "(d) The list of criteria to provide local special reports shall include:"

And consider to use "issue" instead of "provide" in the previous sentence.

response

Accepted

Accepted and changed in the revised text.

comment

154

comment by: Jan Sondij

MET.TR.250.d

A number of important update criteria have been left out in comparison with ICAO Annex 3. Appendix 3 2.3 f describes that local special reports shall be issued for the same criteria as apply for SPECI in paragraph 2.3.2 a until f.

Though SPECIs are not issued in Europe the SPECI update criteria still apply for issuing local special reports. As such the proposal is to include these criteria in MET.TR.250.d.

The deletion of these criteria in the drafting document table (page 46 and 47) is incorrect.

response

Accepted

Accepted and the list of criteria for issuing of local special reports and SPECI is added based on ICAO Annex 3 2.3.2 and 2.3.3.

comment

155

comment by: Jan Sondij

Chapter 3 - Technical requirements for meteorological stations

GENERAL STATEMENT for MET.TR on automated observations (AUTO METAR, AUTO local routine report and AUTO local special report)



	<p>Detailed technical requirements for fully automated observations (AUTO METAR, AUTO Local Routine Report and AUTO Local Special Report) are not included in the NPA 2014-07. There is a tendency in Europe to move more and more towards implementation of fully or remotely monitored meteorological observations for civil aviation. We wonder whether it is useful to include specific technical requirements, including acceptable means of compliance and guidance when needed, to harmonise these important services, in a later update of this rule.</p>
response	<p><i>Noted</i></p> <p>The Agency takes note of the comment. This subject is part of the overall discussion on how to introduce specific European requirements on automated observations in the relevant rules.</p>
comment	<p>168 comment by: ATC the Netherlands</p> <p>MET.TR.250 (b)(2)(iii): Reference MET.TR.252(a)(3)(ii)2) is incorrect and should either be MET.TR.252(a)(3)(ii) or MET.TR.252(a)(3)(ii) (A)/(B)/(C) or a combination</p>
response	<p><i>Accepted</i></p> <p>Accepted and changed in the revised text.</p>
comment	<p>243 comment by: CAA CZ</p> <p>MET.TR.250 (c)(2)(i): missing term "extensible markup language (XML)" (see above and Annex 3, App.3, 2.1.4)</p> <p>Item MET.TR.250 (c)(3) is not present in the document.</p> <p>MET.TR.250 (d) "The local special reports shall include: "</p> <p>- should be: "The list of criteria for issuance of local special reports shall include the following:" (as shown correctly in the part (B) of this NPA and in Annex 3, App.3, 2.3.1)</p> <p>end of MET.TR.250 (d). All criteria for SPECI are missing here, but they are considered by Annex 3 as criteria for the local special reports as well (see Annex 3, App 3, 2.3.1. f). "those values which constitute criteria for SPECI") .Without reflecting SPECI criteria as well, local special reports become useless.</p>
response	<p><i>Partially accepted</i></p> <p>Not accepted. GML is an Extensible Markup Language (XML) grammar defined by the International Standardisation Organisation and Open Geospatial Consortium. GML is used to express the characteristics of an object that represents a physical entity with various geometry properties and to serve as an open exchange format. The concept of feature in GML is a very general and includes not only conventional 'vector' or discrete objects, but also coverages and sensor data. This enables the integration of all forms of geographically referenced information, including meteorological information, in one single exchange format. GML is the agreed standard for digital exchange of METAR, SPECI, TAF and SIGMET and referenced in the regulation without indicating the markup language, XML.</p> <p>Accepted and the list of criteria for issuing of local special reports and SPECI is added based on ICAO Annex 3 2.3.2 and 2.3.3.</p>



comment

249

comment by: IMO

**MISSING PARAGRAPH MET.TR.250 (d)(6):
STRONG DISAGREEMENT**

ICAO Annex 3 Standard "those values which constitute criteria for SPECI" SHALL definitely be included in the local special report (SPECIAL) criteria in

JUSTIFICATION (aviation safety and harmonization): "Criteria for SPECI" are the most important of all local special report criteria. They are referring to operationally significant changes of aviation weather. Almost all SPECI criteria are used as such in TAF forecasts' change groups. This is also a Standard Rule in ICAO Annex 3. Removal of this criteria could have a strong negative impact on aviation safety and quality of MET service. In a worst case scenario this would also lead to a significant variation of aerodrome local reports in EU and globally.

The reason given for not including SPECI is that in all of Europe METARs are done at half hour intervals. NPA 2014-07 (A) page 6. "In this case, SPECI are not mentioned in the proposed rules because according to the EUR ANP, METAR are already issued at half-hourly intervals." In Iceland only one aerodrome has METAR at half-hourly intervals, the rest at hourly intervals. Iceland uses SPECI in those aerodromes.

response

Noted

Accepted and the list of criteria for issuing of local special reports and SPECI is added based on ICAO Annex 3 2.3.2 and 2.3.3.

SPECI: The draft rules do not require the issuance of SPECI in Europe and international dissemination when half-hourly METARs are issued. This approach is in line with ICAO Annex 3 and the EUR ANP. However, the rules do not forbid to issue SPECI, for instance in the case only hourly METARs are issued. SPECI may still be issued then. It is the decision of each State, in agreement with its provider, to decide if, in that case, SPECI shall be issued or not for national dissemination.

comment

262

comment by: Northern Europe Aviation Meteorology Consortium (NAMCon)

The removal of the SPECI related criteria for operationally significant changes would lead to a significant loss of aviation safety and consistency between EU Member States and variations in requirements even at a State level. We also note that Iceland continues to use SPECI operationally in their service provision and as such the statement that in Europe SPECI is not in use is incorrect.

NAMCon demands that these SPECI rules are to be included in local special report criteria.

response

Accepted

Accepted and the list of criteria for issuing of local special reports and SPECI is added based on ICAO Annex 3 2.3.2 and 2.3.3.

comment

282

comment by: LEGMC



response	<p>MISSING PARAGRAPH MET.TR.250 (d)(6):</p> <p>ICAO Annex 3 Standard "those values which constitute criteria for SPECI" shall be included in the local special report (SPECIAL) criteria in EU countries. Removal of SPECI criteria will decrease aviation safety as it is the standard change criterion. SPECI is still in use within several EUR states. There are no specific criteria for special report.</p> <p><i>Accepted</i></p> <p>Accepted and the list of criteria for issuing of local special reports and SPECI is added based on ICAO Annex 3 2.3.2 and 2.3.3.</p>
comment	<p>288 comment by: <i>Isavia Ltd.</i></p> <p>MISSING PARAGRAPH MET.TR.250 (d)(6): STRONG DISAGREEMENT</p> <p>ICAO Annex 3 Standard "those values which constitute criteria for SPECI" SHALL definitely be included in the local special report (SPECIAL) criteria in EU countries.</p> <p>JUSTIFICATION (aviation safety and harmonization): "Criteria for SPECI" are the most important of all local special report criteria. They are referring to operationally significant changes of aviation weather. This is also a Standard Rule in ICAO Annex 3. Removal of this criteria could have a strong negative impact on aviation safety and quality of MET service and can also lead to a significant variation of aerodrome local reports in EU and globally.</p> <p>response <i>Accepted</i></p> <p>Accepted and the list of criteria for issuing of local special reports and SPECI is added based on ICAO Annex 3 2.3.2 and 2.3.3.</p>
comment	<p>292 comment by: <i>European Transport Workers Federation - ETF</i></p> <p>The phrase appropriate ATS unit is often used in this NPA to describe the ATS unit that should receive the MET data and ETF urges EASA to include an AMC to explain further what is intended by the use of this phrase.</p> <p>AMC proposal : The appropriate ATS unit should include at least the ATS unit providing approach control (and/or flight information service in the vicinity of the aerodrome) for the aerodrome considered and the ATS unit providing aerodrome control or aerodrome flight information service for the aerodrome considered.</p> <p>response <i>Partially accepted</i></p> <p>The Agency agrees with the approach, however, it considers that it is more appropriate to include such proposal in Guidance Material as the proposed text is not seen as being a means to comply with the requirement.</p>
comment	<p>323 comment by: <i>ENAV</i></p>



response	<p>Page 26, MET.TR.250 (b)(1) - Whereas a major flexibility with respect to the template shown in Annex 3, Table A3-1 is considered an issue, we believe that the possibility of issuing local routine and special reports in a different format should be more properly submitted to agreements between meteorological service providers and ATS providers instead of between the single meteorological stations and ATS units.</p> <p><i>Accepted</i></p> <p>MET.TR.250(b)(1) is now moved to AMC material.</p>
comment	<p>325 comment by: ENAV</p> <p>Page 26, MET.TR.250 (C) (4) - The requirement regarding the use of the term “CAVOK” is wrongly attributed only to the METAR, while it is also to be assumed for local routine and special reports</p>
response	<p><i>Accepted</i></p> <p>Accepted and new paragraph (d) has been inserted to attribute the term ‘CAVOK’ both for METAR and local routine and special reports.</p>
comment	<p>326 comment by: ENAV</p> <p>Page 27, MET.TR.250 (d)(3) - The significant variation of temperature is wrongly evaluated with respect to the latest “local special” report, while the report of reference is to be the latest report , which can be either a local routine report (in most cases) or, sometimes, a local special report. Therefore the added text “local special” is to be cancelled</p>
response	<p><i>Accepted</i></p> <p>Accepted and changed in the revised text.</p>
comment	<p>327 comment by: ENAV</p> <p>Page 27, MET.TR.250 (d)(5) - The significant variation of wind when noise abatement procedures are applied is wrongly evaluated with respect to the latest “local special” report, while the report of reference is to be the latest report, which can be either a local routine report (in most cases) or, sometimes, a local special report. Therefore the added text “local special” is to be cancelled</p>
response	<p><i>Accepted</i></p> <p>Accepted and changed in the revised text.</p>
comment	<p>331 comment by: ENAV</p> <p>Page 27, MET.TR.250 - The criteria listed in paragraphs 2.3.2 and 2.3.3 of Annex 3 Appendix 3 should be added in MET.TR.250 as a point (d)(6), being them criteria for emission of SPECI which, as per Annex 3, Appendix 3, par. 2.3.1 f) are also criteria of emission of local special reports and are at present the main criteria operationally in use</p>



response	<p><i>Accepted</i></p> <p>Accepted and the list of criteria for issuing of local special reports and SPECI is added based on ICAO Annex 3 2.3.2 and 2.3.3.</p>
comment	<p>349 comment by: ENAC Italy</p> <p>MET.TR.250(b)(1): Whereas a major flexibility with respect to the template shown in Annex 3, Table A3-1 is considered an issue, we believe that the possibility of issuing local routine and special reports in a different format should be more properly submitted to agreements between meteorological service providers and ATS providers instead of between the single meteorological stations and ATS units.</p>
response	<p><i>Accepted</i></p> <p>MET.TR.250(b)(1) is now moved to AMC material.</p>
comment	<p>351 comment by: ENAC Italy</p> <p>MET.TR.250(c)(4): The requirement regarding the use of the term “CAVOK” is wrongly attributed only to the METAR, while it is to be assumed also for local routine and special reports.</p>
response	<p><i>Accepted</i></p> <p>Accepted and new paragraph (d) has been inserted to attribute the term ‘CAVOK’ both for METAR and local routine and special reports.</p>
comment	<p>353 comment by: ENAC Italy</p> <p>MET.TR.250(d)(3): the significant variation of temperature is wrongly evaluated with respect to the latest “local special” report, while the report of reference is to be the latest report, which can be either a local routine report (in most cases) or, sometimes, a local special report. Therefore the added text “local special” is to be cancelled.</p>
response	<p><i>Accepted</i></p> <p>Accepted and changed in the revised text.</p>
comment	<p>354 comment by: ENAC Italy</p> <p>MET.TR.250(d)(5): the significant variation of wind when noise abatement procedures are applied is wrongly evaluated with respect to the latest “local special” report, while the report of reference is to be the latest report, which can be either a local routine report (in most cases) or, sometimes, a local special report. Therefore the added text “local special” is to be cancelled.</p>
response	<p><i>Accepted</i></p>



Accepted and changed in the revised text.

comment	355	comment by: <i>ENAC Italy</i>
	<p>MET.TR.250(d): The criteria listed in Annex 3, Appendix 3, paragraphs 2.3.2 and 2.3.3 should be added in MET.TR.250 as a point (d)(6), being them criteria for emission of SPECI which, as per Annex 3, Appendix 3, par. 2.3.1 f) are also criteria of emission of local special reports and are at present the main criteria operationally in use.</p>	
response	<p><i>Accepted</i></p> <p>Accepted and the list of criteria for issuing of local special reports and SPECI is added based on ICAO Annex 3 2.3.2 and 2.3.3.</p>	
comment	376	comment by: <i>Isavia ltd.</i>
	<p>MET.TR.250 Meteorological reports and other information STRONG DISAGREEMENT a) SPECI is excluded from this list because of it is not needed for METAR issued at half-hourly interval. In Iceland only one airport is issuing METAR half-hourly, the rest hourly. Iceland is therefore issuing SPECI when needed.</p>	
response	<p><i>Not accepted</i></p> <p>SPECI: The draft rules do not require the issuance of SPECI in Europe and international dissemination when half-hourly METARs are issued. This approach is in line with ICAO Annex 3 and the EUR ANP. However, the rules do not forbid to issue SPECI, for instance in the case only hourly METARs are issued. SPECI may still be issued then. It is the decision of each State, in agreement with its provider, to decide if, in that case, SPECI shall be issued or not for national dissemination.</p>	
comment	382	comment by: <i>Météo-France</i>
	<p>(d) all the SPECI criteria have been deleted; it is incorrect. Even if SPECIs are no more issued in the EUR region, these criteria still apply for issuing local special reports.</p>	
response	<p><i>Accepted</i></p> <p>Accepted and the list of criteria for issuing of local special reports and SPECI is added based on ICAO Annex 3 2.3.2 and 2.3.3.</p>	



SERVICES (MET.TR), Section 2 — Specific requirements — 3. Chapter 3 — Technical requirements for meteorological stations — MET.TR.252 Reporting of meteorological elements

comment

102

comment by: *Finnish Meteorological Institute***MET.TR.252 (a)(3)(vi)**

- This rule is only applied to METAR
- "A marked discontinuity" for wind is not defined here, needs references to a specified GM in this document

MET.TR.252 (a)(3)(vii)

This rule is only applied to METAR

MET.TR.252 (c)(3)(i)**INACCURACY IN TEXT****NEEDS REFERENCE**

Needs more specific information

Without information of desirable min/max values of RVR this rule differs remarkably from Annex 3. As defined by ICAO Note limits concerned are 50m and 2000m. Those are mentioned in GM but needs some kind of reference here.

MET.TR.252 (d)(1)

METAR removed from this paragraph (it is covered in (d)(2))

MET.TR.252 (d)(4)(i)

Indication of proximity is used only in METARs

MET.TR.252 (d)(4)(ii)

Indication of proximity is used only in METARs

response

Partially accepted

MET.TR.252(a)(3)(vi):

- Accepted and changed accordingly in the revised text.
- Accepted and new GM1 MET.TR.252(a)(3)(vi) has been included in the revised text .

MET.TR.252(a)(3)(vii): Accepted and changed accordingly in the revised text.

MET.TR.252(c)(3)(i): These limits are included in AMC1 MET.TR.252(c)(1). The Agency does not make a reference to indicate that a reference in AMC or GM exist. The requirements have to be read in conjunction with all the AMC/GM material.

MET.TR.252(d)(1): accepted and removed in the revised text.

MET.TR.252(d)(4)(i): not accepted, this requirement follows ICAO Annex 3, appendix 3, 4.4.2.8 a)

MET.TR.252(d)(4)(ii): not accepted, this requirement follows ICAO Annex 3, appendix 3,



4.4.2.8 b)

comment

125

comment by: *Belgocontrol*

MET.TR.252 (d) (3) This seems to be a duplication of AMC1 MET.TR.252 (d) (3) (c)

response

Accepted

The Agency assumes that the comment refers to AMC1 MET.TR.252(d)(3)(i).

The comment is correct. There is a duplication with the IR, and the AMC is, therefore, deleted.

comment

244

comment by: *CAA CZ*

MET.TR.252 (e)(1) may be partly contradictory to its **AMC1 MET.TR.252 (e)**. This presents one of examples of improper sorting of Annex 3 requirements into TRs and AMC/GMs.

response

Not accepted

MET.TR.252(e)(1) and AMC1 MET.TR.252(e)(1) are literally transposed from ICAO Annex 3 4.5.4.1 and 4.5.4.2. The Agency followed the sorting of the standard and the recommendation in Annex 3.

comment

269

comment by: *DWD*

Part A 3.1 Chapter 3 – Technical requirements for meteorological stations

MET.TR.252 Reporting of meteorological elements (a) Surface wind direction and speed (3)(v) is inconsistent with the referenced tables 4a (page 91 of the NPA) und 5a (page 95): the draft rule itself allows to report wind speeds above 100kt as “more than 99kt” whereas the tables specify a reporting range from 0 to 199kt. While this is equivalent to ICAO Annex 3, the tables in the proposed EASA annex leave out the footnote from the ICAO annex that there is no user requirement for the exact wind speed above 100kt. For completeness here excerpts from the relevant ICAO and WMO publications:

- ICAO Doc 8896 – Manual of Aeronautical Meteorological Practice, 9th edition 2011, page 2-6, 2.3.8.3 b):

“(…) in METAR, as the maximum value of the wind speed, after indication of the mean wind direction and speed and preceded by the letter indicator G (for gusts). The minimum wind speed is never included. When wind speed is 50 m/s (100 kt) or more, the wind speed is reported as P49MPS (P99KT) (…)”

- WMO-No. 306 - Manual on Codes, International Codes, VOLUME I.1, PART A – Alphanumeric Codes, 2012th edition, FM 15, page A-29, 15.5.6:

“(…) For wind speeds of 100 units or greater, the exact number of wind speed units shall be given in lieu of the two-figure code ff or fmfm. When the wind speed is 50 m s⁻¹ (100 knots)



or more, the groups ff and fmfm shall be preceded by the letter indicator P and reported as P49MPS (**P99KT**).

Note: There is no aeronautical requirement to report surface wind speeds of 50 m s⁻¹ (100 KT) or more; however, provision has been made for reporting wind speeds up to 99 m s⁻¹ (199 KT) for nonaeronautical purposes, as necessary. (...)"

- ICAO Annex 3 - ..., 18th edition, APP 3-7, 4.1.5.2 e):

"(...) when a wind speed of 50 m/s (100 kt) or more is reported, it shall be indicated to be more than 49 m/s (99 kt); (...)"

Wenn man nun hier noch das Template von Seite APP 3-23 hinzunimmt, wird auch klar, wie man dies zu kennzeichnen hat. Hier ist zu lesen bei Examples: „140P149MPS (**140P99KT**)“.

DWD requests to include the ICAO footnote in the tables 4a (page 91 of the NPA) und 5a (page 95).

response

Accepted

The footnotes in table 4a and 5a are inserted in the revised tables.

comment

340

comment by: ENAV

Page 30, MET.TR.252 (e)(1) - The upper limit of 10000 ft should be raised because for some aerodromes minimum sector altitudes may be higher, as is the case of many italian aerodromes: For these aerodromes, in local routine and special reports and in METAR/SPECI we report the clouds of operational significance higher than 10000 ft in steps of 1000 ft. Hence, we suggest to integrate the text of the rule as follows:

"In local routine and special reports and in METAR and SPECI, the height of cloud base shall be reported in steps of 30 m (100 ft) up to 3 000 m (10 000 ft) and in steps of 300 m (1 000 ft) beyond 3 000 m (10 000 ft)."

response

Not accepted

The requirement is that it shall be reported in steps of 30 m up to 3 000 m. The Agency considers that this is the common requirement that needs to be put in Europe and it is in accordance with ICAO Annex 3. Any reporting above this limit is to be decided by the competent authority.

comment

357

comment by: Isavia ltd.

MET.TR.252 (a)(3)(vi)

- A definition of "A marked discontinuity" is missing.

MET.TR.252 (a)(3)(vii)

This rule is only applied to METAR, not local routine report.

response

Accepted

Accepted and included as GM1 MET.TR.252(a)(3)(vi) based on ICAO Annex 3 Note under 4.1.5.2

comment

358

comment by: ENAC Italy



	<p>Page 30, MET.TR.252(e)(1): The upper limit of 10000 ft should be raised because for some aerodromes minimum sector altitudes may be higher, as is the case of many Italian aerodromes: For these aerodromes, in local routine and special reports and in METAR/SPECI we report the clouds of operational significance higher than 10000 ft in steps of 1000 ft. Hence, we suggest to integrate the text of the rule as follows: <i>"In local routine and special reports and in METAR and SPECI, the height of cloud base shall be reported in steps of 30 m (100 ft) up to 3 000 m (10 000 ft) and in steps of 300 m (1 000 ft) beyond 3 000 m (10 000 ft)".</i></p>
response	<p><i>Not accepted</i></p> <p>The requirement is that it shall be reported in steps of 30 m up to 3 000 m. The Agency considers that this is the common requirement that needs to be put in Europe and it is in accordance with ICAO Annex 3. Any reporting above this limit is to be decided by the competent authority.</p>
comment	<p>383 comment by: <i>Météo-France</i></p> <p>(a) (3) (vii) "In METAR" is missing The right sentence is : In METAR, when variations from the mean wind speed (gusts) are reported in accordance with MET.TR.255 (a), the maximum value of the wind speed attained shall be reported. cf appendix 3 §4.1.5.4 in annex 3</p>
response	<p><i>Accepted</i></p> <p>Accepted and moved to MET.TR.252(a)(4).</p>
comment	<p>384 comment by: <i>Météo-France</i></p> <p>§ 4.1.5.3 of appendix 3 of Annex 3 is missing</p>
response	<p><i>Noted</i></p> <p>4.1.5.3 is covered under MET.TR.250(b)(2).</p>
comment	<p>385 comment by: <i>Météo-France</i></p> <p>§ 4.1.5.3 of appendix 3 of Annex 3 is missing</p>
response	<p><i>Noted</i></p> <p>4.1.5.3 is covered under MET.TR.250(b)(2).</p>



for meteorological stations — MET.TR.255 Observing meteorological elements

comment	<p>83</p> <p>comment by: <i>René Meier, Europe Air Sports</i></p> <p>(4) Reference Level page 33/135 Question to (iii): Why "height of clouds above mean sea level" is used with regards to offshore structures?</p>
response	<p><i>Noted</i></p> <p>The Agency reproduced here the text from ICAO Annex 3. No rationale was given to support this comment nor any suggestion to change the text from ICAO Annex 3.</p>
comment	<p>86</p> <p>comment by: <i>Jan Sondij</i></p> <p>MET.TR.255(c)(4) Averaging (ii)(A)/(B) describes 1 and 10 minute averaging for RVR. In SERA 9010 the inclusion of RVR on ATIS broadcast is described. The averaging period is not mentioned in SERA. Based on my understanding that the content of ATIS is the local routine and local special report (MET REPORT and SPECIAL) it can be concluded that this means a 1 minute averaging.</p> <p>For clarity purposes this could be stipulated under (4)(ii) (A) by adding "1 minute for local routine and local special reports and for runway visual range displays in ATS units <u>and ATIS broadcasts</u>; and"</p> <p>The above is overcome when SERA regulation is clear on the fact that local routine and special report information need to be used in SERA 9010.</p> <p>So far for the regulation aspect. From a technical and user perspective the reporting of (a 1 minute averaged) RVR in ATIS broadcasts may not be preferred on larger airports, as this could result in rapidly updated (order of minutes) ATIS broadcasts in situations with RVR conditions. A way to overcome this could be to insert a message on the ATIS that RVR conditions apply, and that actual RVR information is available on frequency via ATCO. ATC is provided with 12-seconds updates of all RVR information and ATCOs have access to this information via electronic display systems (CCIS and WIS).</p> <p>To explain the above in a bit more detail:</p> <p>At Amsterdam Airport Schiphol the ATIS arrival can contain up to two runways. Each runway has three RVR measurement positions (A, B and C). In RVR conditions, when following this rule, this will result in including the RVRs in the ATIS broadcast.</p> <p>E.g. adding to the already available information on ATIS: RWY18C RVR position A 550 metres, B 350 metres, C 400 metres, RWY36C RVR position A 850 metres, B 300 metres, C 500 metres.</p> <p>This rule will result in a significant longer ATIS broadcast, which is not in line with ICAO prescribing that the ATIS message should be as short as possible and that the Voice-ATIS should not exceed 30 seconds [ICAO Annex 11, 4.3.4.8 and 4.3.6.5].</p> <p>As a 1 minute average is being used for RVR there is a distinct possibility (given that there are</p>



	<p>6 RVR positions being assessed) that updates will follow shortly (meaning within minutes) and as such resulting in a high number of ATIS broadcast updates. There is a fine balance between the update frequency in relation to meteorological changes and pilot and controller workload in relation to safety. As such, it is proposed to reconsider this rule, and transpose it to soft law and investigate if other means of compliance can be arranged for as well.</p> <p>Given that the rule is stemming from ICAO Annex 3 it could be worthwhile to analyse if this procedure is implemented throughout Europe, and ensure that alignment with SERA.9010 is organised for.</p>
response	<p><i>Noted</i></p> <p>The Agency takes note of the comment and will take the appropriate action to ensure consistency between the MET rules and Regulation (EU) No 923/2012.</p>
comment	<p>103 comment by: <i>Finnish Meteorological Institute</i></p> <p>MET.TR.255 (a)(2)(ii) "A marked discontinuity" for wind is not defined here, needs references to a specified GM in this document</p> <p>MET.TR.255 (a)(3) Reference needed for specified accuracy</p> <p>MET.TR.255 (b)(4)</p> <p>DISAGREEMENT</p> <p>Difference with Annex 3 shall not be made (to be maintained as a recommendation, should).</p> <p>JUSTIFICATION Short averaging time in automated observations may lead to unrepresentative observations when the observed weather phenomena is small in scale or short term (e.g. fog patches, snow showers).</p> <p>For example, due to rules for siting near runway instruments may be strongly affected by "artificial weather" due to winter maintenance especially at northern European aerodromes (with cold climate). Due to a short averaging time 1min VIS values might be unrepresentative.</p> <p>MET.TR.255 (c)(4)(ii)(B) "A marked discontinuity" for RVR is not defined here, needs reference to a specified GM in this document</p> <p>MET.TR.255 (g)(3) "reference level" for atmospheric pressure is not defined here, needs references to a specified AMC in this document</p>
response	<p><i>Noted</i></p>



MET.TR.255(a)(2)(ii)

Please see GM1 MET.TR.255(a)(2)(ii) transposed from the ICAO Annex 3 Note under 4.1.3.1.

MET.TR.255(a)(3)

Please see AMC1 MET.TR.255(a)(3) transposed from ICAO Annex 3 Recommendation 4.1.3.2.

MET.TR.255(b)(4): The 1-minute average visibility is now moved to AMC level and aligned with ICAO Annex 3, Appendix 3 Recommendation 4.2.3 a).

MET.TR.255(c)(4)(ii)(B)

Please see GM1 MET.TR.255(c)(4)(ii)(B) transposed from the ICAO Annex 3 Note under 4.1.3.1.

MET.TR.255(g)(3)

Please see AMC1 MET.TR.255(g)(3) transposed from the ICAO Annex 3 Recommendation under 4.7.2.

comment

126

comment by: *Belgocontrol*

MET.TR.255	Several sub-bullets are transposed from Part 1 of ICAO Annex 3 - §xxx; Unfortunately no traceability for this has been made available in NPA (B) or in a separate NPA (C) or updated 2013-08 NPA (e)
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response

Noted

This statement is correct. The traceability for the chapters of Part I that were identified to be transposed during the MET.TR phase is missing because the drafting document only contains the Appendices to Part II of ICAO Annex 3 and not Part I. This is due to the fact that the drafting documents for both MET.OR and MET.TR contain only their respective parts. A consolidated drafting document covering the entire ICAO Annex 3 will be provided at a later stage, for traceability purposes only.

comment

169

comment by: *ATC the Netherlands*

MET.TR.255(c)(4) Averaging (ii)(A)/(B) describes 1 and 10 minute averaging for RVR.

In SERA 9010 the inclusion of RVR on ATIS broadcast is described. The averaging period is not mentioned in SERA. Based on my understanding that the content of ATIS is the local routine and special report (MET REPORT and SPECIAL) it can be concluded that this means a 1 minute average.

For clarity purposes this could be stipulated under (4)(ii) (A) by adding "1 minute for local routine and special reports and for runway visual range displays in ATS units and ATIS broadcasts; and"



	<p>The abovementioned will be overcome should SERA regulation be clear of the fact that local routine and special report information need to be used in SERA 9010.</p> <p>So far for the regulation aspect. From a technical and user perspective the use of a 1 minute averaged RVR in ATIS broadcasts may not at all be preferred at larger airports, as this will result in 1 minute ATIS updates in situations with RVR conditions. A way to overcome this could be to insert a message on the ATIS that RVR conditions are applicable, and that actual RVR information is available on frequency via ATCO.</p>
response	<p><i>Noted</i></p> <p>The Agency takes note of the comment and will take the appropriate action to ensure consistency between the MET rules and Regulation (EU) No 923/2012.</p>
comment	<p>245 comment by: CAA CZ</p> <p>MET.TR.255 (a) does not contain subitem "Displays", containing material from Annex.3, App.3, 4.1.2.1 (which is important especially for wind; for other meteorological elements, such subitem is included)</p>
response	<p><i>Not accepted</i></p> <p>As explained in the drafting document, the Agency, with the support of the experts of the rulemaking group, considered that this paragraph should not to be transposed as this is a requirement related to corresponding displays both in the MET stations and the ATS and not a requirement put on the MET station as such.</p>
comment	<p>258 comment by: Amela Jericevic</p> <ul style="list-style-type: none"> • In Chapter 3-Technical requirements for meteorological reports and observations, MET.TR.255 <i>Observing meteorological elements</i>, requirements for different meteorological elements are provided according to different categories: resolution, siting, averaging, display and accuracy of measurements. However all categories are not equally provided for all elements. For wind measurements display is missing (same comment as in 1 for NPA 2014-07 (B)) while it is the only element with defined request on the accuracy of measurements. Display category for visibility could comprise more information (automatic systems...) • In order to achieve the uniform level of quality of data, all elements should contain the statement on accuracy or a general statement can be included in the first sentence of MET.TR.255. E.g., 'Observed meteorological elements shall be measured with specified accuracy.'
response	<p><i>Partially accepted</i></p> <ul style="list-style-type: none"> — Noted. The different meteorological elements are provided according to the categories in ICAO Annex 3, as far as relevant. — Accepted. The proposal is accepted and included in the 'introductory' text of MET.TR.255.



comment	270	comment by: DWD
	<p><u>GM1 MET.TR.255(c)(4)(ii)(B) Observing meteorological elements RVR – AVERAGING</u></p> <p>Germany does currently differ from this rule. However, the national directive on all-weather operations (Richtlinie für den Allwetterflugbetrieb) is being updated. As soon as it has been approved by the German MET Authority, DWD will be compliant with this rule.</p>	
response	<p><i>Noted</i></p> <p>The Agency takes note of the German situation.</p>	
comment	305	comment by: Air transport directorate
	<p>The ICAO recommended practice 4.3.2.2 (appendice 3 of Annex 3) becomes a rule in the proposed EASA text MET.TR.255.c.2 which creates an issue for CAT I only runways. For runways intended for CAT I only operations, and when the published RVR is more than 800m, it shall not be made mandatory to use transmissometers or forward-scatter meters in order to assess the RVR. Indeed, the operational regulation allows the pilot to use a conversion of the reported meteorological visibility as RVR when the published RVR minima is greater than or equal to 800m (Regulation n°965/2012 AMC10 CAT.OP.MPA.110). The MET regulation should be consistent with the OPS regulation with this respect.</p>	
response	<p><i>Noted</i></p> <p>Initially, the Agency, with the support of the members of the rulemaking group, did not intend to transpose any ICAO Annex 3 provisions related to RVR instrumented systems for CAT I. However, in order not to totally ban the use of instrumented system based on transmissioners or forward-scatter meters for CAT I, the proposed text ‘as determined by the competent authority’ was added in order to allow to use these for CAT I on certain aerodrome, if necessary. So for CAT I, it is only mandatory if determined by the competent authority (in agreement with the relevant MET provider).</p>	
comment	332	comment by: ENAV
	<p>Page 31, MET.TR.255 (a) - The text of paragraph 4.1.2.1 of Appendix 3 of Annex 3 should be transposed in a specific sub-segment regarding wind displays, as it is for visibility (MET.TR.255 (b) (3)), RVR (MET.TR.255 (c) (3)) etc.</p>	
response	<p><i>Not accepted</i></p> <p>This paragraph is not transposed as this is a requirement related to corresponding displays both in the meteorological stations and the air traffic services and not a requirement put on the meteorological station.</p>	
comment	334	comment by: ENAV
	<p>Page 32, MET.TR.255 (b)(4)(ii) - The definition of marked discontinuity in the visibility is missing and is to be transposed. According to paragraphs 2.3.3. b) and 4.2.3 of Appendix 3 of Annex 3 it should sound as follows:</p>	



	<p><i>"A marked discontinuity occurs when there is an abrupt and sustained change in visibility, lasting at least 2 minutes, which reaches or passes through one or more of the following values: 800, 1500 or 3000 or 5000 m".</i></p>
response	<p><i>Accepted</i></p> <p>Accepted and included as GM1 MET.TR.255(b)(4).</p>
comment	<p>359 comment by: ENAC Italy</p> <p>Page 31, MET.TR.255(a): The text of paragraph 4.1.2.1 of Appendix 3 of Annex 3 should be transposed in a specific sub-segment regarding wind displays, as it is for visibility (MET.TR.255 (b) (3)), RVR (MET.TR.255 (c) (3)), etc.</p>
response	<p><i>Not accepted</i></p> <p>This paragraph is not transposed as this is a requirement related to corresponding displays both in the meteorological stations and the air traffic services and not a requirement put on the meteorological station.</p>
comment	<p>360 comment by: ENAC Italy</p> <p>Page 32, MET.TR.255(b)(4)(ii): The definition of marked discontinuity in the visibility is missing and is to be transposed. According to Annex 3, Appendix 3, paragraphs 2.3.3. b) and 4.2.3 it should sound as follows:</p> <p><i>"A marked discontinuity occurs when there is an abrupt and sustained change in visibility, lasting at least 2 minutes, which reaches or passes through one or more of the following values: 800, 1500 or 3000 or 5000 m".</i></p>
response	<p><i>Accepted</i></p> <p>Accepted and included as GM1 MET.TR.255(b)(4).</p>
comment	<p>364 comment by: Isavia ltd.</p> <p>MET.TR.255 (a)(2)(ii) Clarification missing of "A marked discontinuity"</p> <p>MET.TR.255 (b)(4) DISAGREEMENT Difference with Annex 3 where should becomes shall, should be kept as a recommendation, should).</p> <p>MET.TR.255 (c)(4)(ii)(B) Clarification missing of "A marked discontinuity"</p> <p>MET.TR.255 (g)(3) Definition of "reference level" for atmospheric pressure is missing.</p>
response	<p><i>Partially accepted</i></p> <p>MET.TR.255(a)(2)(ii)</p>



Please see GM1 MET.TR.255(a)(2)(ii) transposed from the ICAO Annex 3 Note under 4.1.3.1.

MET.TR.255(b)(4)

The 1-minute average visibility is now moved to AMC level and aligned with ICAO Annex 3, Appendix 3 Recommendation 4.2.3 a).

MET.TR.255(c)(4)(ii)(B)

Please see GM1 MET.TR.255(c)(4)(ii)(B) transposed from the ICAO Annex 3 Note under 4.1.3.1.

MET.TR.255(g)(3)

Please see AMC1 MET.TR.255(g)(3) transposed from the ICAO Annex 3 Recommendation under 4.7.2.

comment

386

comment by: *Météo-France*

(c) (3) (ii)

"as specified in AMC MET.TR.255 (c)" is missing

The right sentence is : The displays in the meteorological station and in the ATS units shall be related to the same sensors, and where separate sensors are required **as specified in AMC MET.TR.255 (c)**, the displays shall be clearly marked to identify the runway and section of runway monitored by each sensor.

cf appendix 3 §4.3.3.1 in annex 3

response

Not accepted

This reference is not related to the siting. In addition, it is not possible to link a requirement with a reference in AMC.

comment

399

comment by: *BAF-M.Jancokova*

- Page 31 MET.TR.225: Definition for "semi-automatic meteorological observing system" has to be added.

response

Noted

Please see definition of 'semi-automatic observing system' on page 15 of the NPA.

3. Proposed amendments — 3.1. Draft Regulation (Draft EASA Opinion) — Draft Opinion — Annex IV — SPECIFIC REQUIREMENTS FOR THE PROVISION OF METEOROLOGICAL SERVICES (Part-MET), SUBPART B — TECHNICAL REQUIREMENTS FOR THE PROVISION OF METEOROLOGICAL SERVICES (MET.TR), Section 2 — Specific requirements — 5. Chapter 5 — Technical requirements for World Area Forecast Centres (WAFCs) — MET.TR.265 World Area Forecast Centre responsibilities

p. 34-36

comment

246

comment by: *CAA CZ*



	<p>MET.TR.265 (a): "WAFCs shall use GRIB 2 code form for the supply of gridded global forecasts..."</p> <p>- Annex 3 requires only GRIB code form, not its explicit version (e.g. GRIB3 is currently under preparation; coding itself is in responsibility of WMO)</p> <p>MET.TR.265 (c) "For global forecasts of significant @ weather phenomena, WAFCs shall!:"</p> <p>- missing @="en route"</p> <p>MET.TR.265 (d) Current SIGWX chart for EUR issued by WAFC London covers FL100-450. Maybe a better statement should be considered.</p>
response	<p><i>Partially accepted</i></p> <p>MET.TR.265(a): Accepted and reference to version 2 is removed.</p> <p>MET.TR.265(c): Accepted and changed accordingly.</p> <p>MET.TR.265(d): Not accepted. The requirement concerns mid-level SIGWX which is defined as between 110 and 250. If the WAFC in London is producing SIGWX between 100–450, this is another issue.</p>

3. Proposed amendments — 3.2. Draft Acceptable Means of Compliance and Guidance Material (Draft EASA Decision), Section 1 — General requirements — GM1 MET.TR.115(a) Meteorological bulletins 'HEADING'

p. 37

comment	<p>142</p> <p>comment by: SWEDISH TRANSPORT AGENCY</p> <p>It is not suitable to have this provision as a GM it needs to be at least an AMC. It works in Annex 3 as a note to a standard but reading this reference as GM means that you do not need to adhere to the format and contents of a heading as specified.</p>
response	<p><i>Not accepted</i></p> <p>This GM only makes a reference to WMO and ICAO document. The adherence to a certain format and content should preferably be made in a separate IR or AMC then.</p>

3. Proposed amendments — 3.2. Draft Acceptable Means of Compliance and Guidance Material (Draft EASA Decision), Section 2 — Specific requirements — Chapter 1 — Technical requirements for meteorological watch offices — GM6 MET.TR.205(a) SIGMET 'EXAMPLE OF AIRMET MESSAGE FOR MODERATE MOUNTAIN WAVE'

p. 39

comment	<p>143</p> <p>comment by: SWEDISH TRANSPORT AGENCY</p> <p>GM6.MET.TR 205 (a) Check heading it shall be AIRMET not SIGMET.</p>
response	<p><i>Accepted</i></p> <p>It has been corrected in the revised text.</p>

3. Proposed amendments — 3.2. Draft Acceptable Means of Compliance and Guidance Material

p. 40-41



(Draft EASA Decision), Section 2 — Specific requirements — Chapter 1 — Technical requirements for meteorological watch offices — GM1 MET.TR.205(c) SIGMET & MET.TR.210(c) AIRMET 'CRITERIA RELATED TO PHENOMENA'

comment 346

comment by: ENAV

Page 40, GM1 MET.TR.205(c) SIGMET & MET.TR.210(c) AIRMET - Please note that according to your rationale (see NPA 2014-07 (B), page 165) the classification of turbulence based on EDR, shouldn't be transposed in the proposed rules, because, being EDR an on-board parameter used as a reference for air reports, it deals with airspace requirements to be covered under the relevant set of rules, as well as the whole Chapter 5 and Appendix 4 of Annex 3

response *Not accepted*

The rationale mentioned in NPA 2014-07 (B) is that it should not be transposed as AMC but rather as Guidance Material, although it is a recommendation in ICAO Annex 3. The reason is that, when reading the text of ICAO Annex 3, this recommendation is not meant to 'recommend' a way to do something but only explains when turbulence is considered.

comment 361

comment by: ENAC Italy

Please note that according to your rationale (see NPA 2014-07 (B), page 165) the classification of turbulence based on EDR, shouldn't be transposed in the proposed rules, because, being EDR an on-board parameter used as a reference for air reports, it deals with airspace requirements to be covered under the relevant set of rules, as well as the whole Chapter 5 and Appendix 4 of Annex 3.

response *Not accepted*

The rationale mentioned in NPA 2014-07 (B) is that it should not be transposed as AMC but rather as Guidance Material, although it is a recommendation in ICAO Annex 3. The reason is that, when reading the text of ICAO Annex 3, this recommendation is not meant to 'recommend' a way to do something but only explains when turbulence is considered.

3. Proposed amendments — 3.2. Draft Acceptable Means of Compliance and Guidance Material (Draft EASA Decision), Section 2 — Specific requirements — Chapter 1 — Technical requirements for meteorological watch offices — AMC1 MET.OR.205(d) SIGMET 'FORMAT'

p. 41

comment 127

comment by: Belgocontrol

AMC1 MET.OR/TR.205 (d) There seems to be a typo in the reference: "OR" should be "TR"

response *Accepted*

3. Proposed amendments — 3.2. Draft Acceptable Means of Compliance and Guidance Material (Draft EASA Decision), Section 2 — Specific requirements — Chapter 2 — Technical requirements for aerodrome meteorological offices — AMC1 MET.TR.220(a) Forecast and other meteorological information 'MEANS BY WHICH METEOROLOGICAL INFORMATION CAN BE PROVIDED'

p. 41

comment	17	comment by: Jan Sondij
	<p>AMC1 MET.TR.220(a) Forecast and other meteorological information.</p> <p>Comment: This TR seems to belong to MET.OR.215 Forecasts and other meteorological information, and NOT to MET.OR.220.</p>	
response	<p><i>Not accepted</i></p> <p>AMC1 MET.TR.220 'Forecasts and other meteorological information' is aligned with the CRD version of MET.OR.220 'Forecasts and other meteorological information'.</p> <p>The MET.OR text has been realigned during the CRD drafting following some reference changes during the NPA drafting of the MET.TR rules.</p> <p>Please note that Appendix IV to NPA 2014-07 'MET rules of Annex IV — Subpart A of NPA 2013-08 (B)' provides for information only the related MET.OR. However, a note has been added to explicitly clarify that the MET.OR rule text is the one currently proposed in NPA 2013-08 and does not contain the possible changes stemming from the current revision under the CRD process.</p>	
comment	19	comment by: Jan Sondij
	<p>In header replace "forecast" by "forecasts" to be consistent with MET.OR.215 and AMC2 MET.TR.220(a).</p>	
response	<p><i>Accepted</i></p> <p>'Forecast' has been changed to 'forecasts'.</p>	
comment	170	comment by: ATC the Netherlands
	<p>This TR seems to belong to MET.OR.215 Forecasts and other meteorological information, and NOT to MET.OR.220.</p> <p>In header replace "forecast" by "forecasts" to be consistent with MET.OR.215 and AMC2 MET.TR.220(a).</p>	
response	<p><i>Partially accepted</i></p> <p>Not accepted. AMC1 MET.TR.220 'Forecasts and other meteorological information' is aligned with the CRD version of MET.OR.220 'Forecasts and other meteorological information'. The MET.OR text has been realigned during the CRD drafting following some reference changes during the NPA drafting of the MET.TR rules. Please note that Appendix IV to NPA 2014-07 'MET rules of Annex IV — Subpart A of NPA 2013-08 (B)' provides for information only the related MET.OR. However, a note has been added to explicitly clarify that the MET.OR rule</p>	



text is the one currently proposed in NPA 2013-08 and does not contain the possible changes stemming from the current revision under the CRD process.

Accepted. 'Forecast' is changed to 'forecasts'.

3. Proposed amendments — 3.2. Draft Acceptable Means of Compliance and Guidance Material (Draft EASA Decision), Section 2 — Specific requirements — Chapter 2 — Technical requirements for aerodrome meteorological offices — AMC2 MET.TR.220(a) Forecasts and other meteorological information 'SPECIFIC NEEDS OF HELICOPTER OPERATIONS' p. 41-42

comment 18 comment by: Jan Sondij

AMC2 MET.TR.220(a) Forecasts and other meteorological information.

Comment: This TR seems to belong to MET.OR.215 Forecasts and other meteorological information, and NOT to MET.OR.220.

response Not accepted

AMC2 MET.TR.220 'Forecasts and other meteorological information' is aligned with the CRD version of MET.OR.220 'Forecasts and other meteorological information'.

The MET.OR text has been realigned during the CRD drafting following some reference changes during the NPA drafting of the MET.TR rules.

Please note that Appendix IV to NPA 2014-07 'MET rules of Annex IV — Subpart A of NPA 2013-08 (B)' provides for information only the related MET.OR. However, a note has been added to explicitly clarify that the MET.OR rule text is the one currently proposed in NPA 2013-08 and does not contain the possible changes stemming from the current revision under the CRD process.

comment 171 comment by: ATC the Netherlands

Comment: This TR seems to belong to MET.OR.215 Forecasts and other meteorological information, and NOT to MET.OR.220.

response Not accepted

AMC2 MET.TR.220(a) 'Forecasts and other meteorological information' is aligned with the CRD version of MET.OR.220 'Forecasts and other meteorological information'.

The MET.OR text has been realigned during the CRD drafting following some reference changes during the NPA drafting of the MET.TR rules.

Please note that Appendix IV to NPA 2014-07 'MET rules of Annex IV — Subpart A of NPA 2013-08 (B)' provides for information only the related MET.OR. However, a note has been added to explicitly clarify that the MET.OR rule text is the one currently proposed in NPA 2013-08 and does not contain the possible changes stemming from the current revision under the CRD process.



3. Proposed amendments — 3.2. Draft Acceptable Means of Compliance and Guidance Material (Draft EASA Decision), Section 2 — Specific requirements — Chapter 2 — Technical requirements for aerodrome meteorological offices — GM1 MET.TR.220(a)(5)(iii),(iv)&(v) Forecasts and other meteorological information 'BRIEFING, CONSULTATION, AND DISPLAY'

p. 42

comment

20

comment by: Jan Sondij

This article is linked to MET.OR.215 and subsequently the reference to "220" should be changed to "215"

response

Not accepted

GM1 MET.TR.220 'Forecasts and other meteorological information' is aligned with the CRD version of MET.OR.220 'Forecasts and other meteorological information'.

The MET.OR text has been realigned during the CRD drafting following some reference changes during the NPA drafting of the MET.TR rules.

Please note that Appendix IV to NPA 2014-07 'MET rules of Annex IV — Subpart A of NPA 2013-08 (B)' provides for information only the related MET.OR. However, a note has been added to explicitly clarify that the MET.OR rule text is the one currently proposed in NPA 2013-08 and does not contain the possible changes stemming from the current revision under the CRD process.

comment

128

comment by: Belgocontrol

GM1
MET.TR.220 (a)
..

This TR is transposed from Part 1 of ICAO Annex 3 - §xxx; Unfortunately no traceability for this has been made available in NPA (B) or in a separate NPA (C) or updated 2013-08 NPA (e)

response

Noted

This statement is correct. The traceability for the chapters of Part I that were identified to be transposed during the MET.TR phase is missing because the drafting document only contains the Appendices to Part II of ICAO Annex 3 and not Part I. This is due to the fact that the drafting documents for both MET.OR and MET.TR contain only their respective parts. A consolidated drafting document covering the entire ICAO Annex 3 will be provided at a later stage, for traceability purposes only.

comment

144

comment by: SWEDISH TRANSPORT AGENCY

Check the refers on the GM1 to.TR 220(a) this provision has only (4) items but the referens i



	to (5) confusing.
response	<p><i>Accepted</i></p> <p>Accepted and corrected — the correct reference is 220(a).</p>
comment	<p>172 comment by: ATC the Netherlands</p> <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> <p>This article is linked to MET.OR.215 and subsequently the reference to "220" should be changed to "215"</p> </div>
response	<p><i>Not accepted</i></p> <p>GM1 MET.TR.220(a)(5)(iii), (iv)&(v) 'Forecasts and other meteorological information' is aligned with the CRD version of MET.OR.220 'Forecasts and other meteorological information'.</p> <p>The MET.OR text has been realigned during the CRD drafting following some reference changes during the NPA drafting of the MET.TR rules.</p> <p>Please note that Appendix IV to NPA 2014-07 'MET rules of Annex IV — Subpart A of NPA 2013-08 (B)' provides for information only the related MET.OR. However, a note has been added to explicitly clarify that the MET.OR rule text is the one currently proposed in NPA 2013-08 and does not contain the possible changes stemming from the current revision under the CRD process.</p>

3. Proposed amendments — 3.2. Draft Acceptable Means of Compliance and Guidance Material (Draft EASA Decision), Section 2 — Specific requirements — Chapter 2 — Technical requirements for aerodrome meteorological offices — AMC1 MET.TR.220(a)(5)(vi) Forecasts and other meteorological information 'AUTOMATED PRE-FLIGHT INFORMATION SYSTEMS'

p. 42

comment	<p>21 comment by: Jan Sondij</p> <p>This article is linked to MET.OR.215 and subsequently the reference to "220" should be changed to "215"</p>
response	<p><i>Not accepted</i></p> <p>AMC1 MET.TR.220(a)(5)(iv) 'Forecasts and other meteorological information' is aligned with the CRD version of MET.OR.220 'Forecasts and other meteorological information'.</p> <p>The MET.OR text has been realigned during the CRD drafting following some reference changes during the NPA drafting of the MET.TR rules.</p>



Please note that Appendix IV to NPA 2014-07 'MET rules of Annex IV — Subpart A of NPA 2013-08 (B)' provides for information only the related MET.OR. However, a note has been added to explicitly clarify that the MET.OR rule text is the one currently proposed in NPA 2013-08 and does not contain the possible changes stemming from the current revision under the CRD process.

comment 173

comment by: ATC the Netherlands

This article is linked to MET.OR.215 and subsequently the reference to "220" should be changed to "215"

response *Not accepted*

AMC1 MET.TR.220(a)(5)(vi) 'Forecasts and other meteorological information' is aligned with the CRD version of MET.OR.220 'Forecasts and other meteorological information'.

The MET.OR text has been realigned during the CRD drafting following some reference changes during the NPA drafting of the MET.TR rules.

Please note that Appendix IV to NPA 2014-07 'MET rules of Annex IV — Subpart A of NPA 2013-08 (B)' provides for information only the related MET.OR. However, a note has been added to explicitly clarify that the MET.OR rule text is the one currently proposed in NPA 2013-08 and does not contain the possible changes stemming from the current revision under the CRD process.

3. Proposed amendments — 3.2. Draft Acceptable Means of Compliance and Guidance Material (Draft EASA Decision), Section 2 — Specific requirements — Chapter 2 — Technical requirements for aerodrome meteorological offices — GM1 MET.TR.220(a)(5)(vi) Forecasts and other meteorological information 'AUTOMATED PRE-FLIGHT INFORMATION SYSTEMS'

p. 42

comment 22

comment by: Jan Sondij

This article is linked to MET.OR.215 and subsequently the reference to "220" should be changed to "215"

response *Not accepted*

GM1 MET.TR.220(a)(5)(vi) 'Forecasts and other meteorological information' is aligned with the CRD version of MET.OR.220 'Forecasts and other meteorological information'.

The MET.OR text has been realigned during the CRD drafting following some reference changes during the NPA drafting of the MET.TR rules.



Please note that Appendix IV to NPA 2014-07 'MET rules of Annex IV — Subpart A of NPA 2013-08 (B)' provides for information only the related MET.OR. However, a note has been added to explicitly clarify that the MET.OR rule text is the one currently proposed in NPA 2013-08 and does not contain the possible changes stemming from the current revision under the CRD process.

comment 175

comment by: ATC the Netherlands

This article is linked to MET.OR.215 and subsequently the reference to "220" should be changed to "215"

response *Not accepted*

GM1 MET.TR.220(a)(5)(vi) 'Forecasts and other meteorological information' is aligned with the CRD version of MET.OR.220 'Forecasts and other meteorological information'.

The MET.OR text has been realigned during the CRD drafting following some reference changes during the NPA drafting of the MET.TR rules.

Please note that Appendix IV to NPA 2014-07 'MET rules of Annex IV — Subpart A of NPA 2013-08 (B)' provides for information only the related MET.OR. However, a note has been added to explicitly clarify that the MET.OR rule text is the one currently proposed in NPA 2013-08 and does not contain the possible changes stemming from the current revision under the CRD process.

3. Proposed amendments — 3.2. Draft Acceptable Means of Compliance and Guidance Material (Draft EASA Decision), Section 2 — Specific requirements — Chapter 2 — Technical requirements for aerodrome meteorological offices — GM1 MET.TR.220(b) Forecasts and other meteorological information 'METEOROLOGICAL INFORMATION TO RESCUE COORDINATION CENTRES'

p. 42

comment 23

comment by: Jan Sondij

This article is linked to MET.OR.215 and subsequently the reference to "220" should be changed to "215"

response *Not accepted*

GM1 MET.TR.220(b) 'Forecasts and other meteorological information' is aligned with the CRD version of MET.OR.220 'Forecasts and other meteorological information'.

The MET.OR text has been realigned during the CRD drafting following some reference changes during the NPA drafting of the MET.TR rules.



Please note that Appendix IV to NPA 2014-07 'MET rules of Annex IV — Subpart A of NPA 2013-08 (B)' provides for information only the related MET.OR. However, a note has been added to explicitly clarify that the MET.OR rule text is the one currently proposed in NPA 2013-08 and does not contain the possible changes stemming from the current revision under the CRD process.

comment 145

comment by: SWEDISH TRANSPORT AGENCY

As this provision is a standard in Annex 3 it shall be at least an AMC i.e. knowledge about the sea-surface temperature or if the ground is snow covered could be crucial.

response Not accepted

This GM was developed to explain which are the elements that are not distributed routinely. It has no impact on the kind of information to be provided to rescue coordination centres.

comment 176

comment by: ATC the Netherlands

This article is linked to MET.OR.215 and subsequently the reference to "220" should be changed to "215"

response Not accepted

GM1 MET.TR.220(b) 'Forecasts and other meteorological information' is aligned with the CRD version of MET.OR.220 'Forecasts and other meteorological information'.

The MET.OR text has been realigned during the CRD drafting following some reference changes during the NPA drafting of the MET.TR rules.

Please note that Appendix IV to NPA 2014-07 'MET rules of Annex IV — Subpart A of NPA 2013-08 (B)' provides for information only the related MET.OR. However, a note has been added to explicitly clarify that the MET.OR rule text is the one currently proposed in NPA 2013-08 and does not contain the possible changes stemming from the current revision under the CRD process.

3. Proposed amendments — 3.2. Draft Acceptable Means of Compliance and Guidance Material (Draft EASA Decision), Section 2 — Specific requirements — Chapter 2 — Technical requirements for aerodrome meteorological offices — AMC1 MET.TR.220(d)(5) Forecasts and other meteorological information 'HEIGHT INDICATIONS'

p. 42-43

comment 24

comment by: Jan Sondij



response

This article is linked to MET.OR.215 and subsequently the reference to "220" should be changed to "215"

Not accepted

AMC1 MET.TR.220(d)(5) 'Forecasts and other meteorological information' is aligned with the CRD version of MET.OR.220 'Forecasts and other meteorological information'.

The MET.OR text has been realigned during the CRD drafting following some reference changes during the NPA drafting of the MET.TR rules.

Please note that Appendix IV to NPA 2014-07 'MET rules of Annex IV — Subpart A of NPA 2013-08 (B)' provides for information only the related MET.OR. However, a note has been added to explicitly clarify that the MET.OR rule text is the one currently proposed in NPA 2013-08 and does not contain the possible changes stemming from the current revision under the CRD process.

comment

177

comment by: ATC the Netherlands

This article is linked to MET.OR.215 and subsequently the reference to "220" should be changed to "215"

response

Not accepted

AMC1 MET.TR.220(d)(5) 'Forecasts and other meteorological information' is aligned with the CRD version of MET.OR.220 'Forecasts and other meteorological information'.

The MET.OR text has been realigned during the CRD drafting following some reference changes during the NPA drafting of the MET.TR rules.

Please note that Appendix IV to NPA 2014-07 'MET rules of Annex IV — Subpart A of NPA 2013-08 (B)' provides for information only the related MET.OR. However, a note has been added to explicitly clarify that the MET.OR rule text is the one currently proposed in NPA 2013-08 and does not contain the possible changes stemming from the current revision under the CRD process.

3. Proposed amendments — 3.2. Draft Acceptable Means of Compliance and Guidance Material (Draft EASA Decision), Section 2 — Specific requirements — Chapter 2 — Technical requirements for aerodrome meteorological offices — GM1 MET.TR.220(d)(5) Forecasts and other meteorological information 'HEIGHT INDICATIONS'

p. 43

comment

25

comment by: Jan Sondij

This article is linked to MET.OR.215 and subsequently the reference to "220" should be changed to "215"

response

Not accepted

GM1 MET.TR.220(d)(5) 'Forecasts and other meteorological information' is aligned with the



CRD version of MET.OR.220 'Forecasts and other meteorological information'.

The MET.OR text has been realigned during the CRD drafting following some reference changes during the NPA drafting of the MET.TR rules.

Please note that Appendix IV to NPA 2014-07 'MET rules of Annex IV — Subpart A of NPA 2013-08 (B)' provides for information only the related MET.OR. However, a note has been added to explicitly clarify that the MET.OR rule text is the one currently proposed in NPA 2013-08 and does not contain the possible changes stemming from the current revision under the CRD process.

comment

178

comment by: *ATC the Netherlands*

This article is linked to MET.OR.215 and subsequently the reference to "220" should be changed to "215"

response

Not accepted

GM1 MET.TR.220(d)(5) 'Forecasts and other meteorological information' is aligned with the CRD version of MET.OR.220 'Forecasts and other meteorological information'.

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Please note that Appendix IV to NPA 2014-07 'MET rules of Annex IV — Subpart A of NPA 2013-08 (B)' provides for information only the related MET.OR. However, a note has been added to explicitly clarify that the MET.OR rule text is the one currently proposed in NPA 2013-08 and does not contain the possible changes stemming from the current revision under the CRD process.

comment

352

comment by: *ENAV*

Page 43, GM1.MET.TR.220 (d)(5) - Please note that height indications are to be explicitly referred to en-route meteorological conditions, as it is in AMC1 MET.TR.220(d)(5).

response

Accepted

Accepted and reference to 'en-route meteorological conditions' is added in the GM.

comment

362

comment by: *ENAC Italy*

Please note that height are to be explicitly referred to en-route meteorological conditions, as it is in AMC1 MET.TR.220(d)(5).

response

Accepted

Accepted and reference to 'en-route meteorological conditions' is added in the GM.



(Draft EASA Decision), Section 2 — Specific requirements — Chapter 2 — Technical requirements for aerodrome meteorological offices — AMC1 MET.TR.220(e) Forecasts and other meteorological information 'FLIGHT DOCUMENTATION'

comment	26	comment by: Jan Sondij
	This article is linked to MET.OR.215 and subsequently the reference to "220" should be changed to "215"	
response	<p><i>Not accepted</i></p> <p>AMC1 MET.TR.220(e) 'Forecasts and other meteorological information' is aligned with the CRD version of MET.OR.220 'Forecasts and other meteorological information'.</p> <p>The MET.OR text has been realigned during the CRD drafting following some reference changes during the NPA drafting of the MET.TR rules.</p> <p>Please note that Appendix IV to NPA 2014-07 'MET rules of Annex IV — Subpart A of NPA 2013-08 (B)' provides for information only the related MET.OR. However, a note has been added to explicitly clarify that the MET.OR rule text is the one currently proposed in NPA 2013-08 and does not contain the possible changes stemming from the current revision under the CRD process.</p>	
comment	104	comment by: Finnish Meteorological Institute
	<p>AMC1 MET.TR.220(e)(a)</p> <p>Low level charts examples and chart legends (Annex 3, Appendix 1, Flight Documentation - Model Charts and Forms) is missing from both NPA 2014-07 (A) and NPA 2014-07 (B).</p>	
response	<p><i>Noted</i></p> <p>The charts and models from Appendix 1 of ICAO Annex 3 are now inserted in the revised text.</p>	
comment	179	comment by: ATC the Netherlands
	This article is linked to MET.OR.215 and subsequently the reference to "220" should be changed to "215"	
response	<p><i>Not accepted</i></p> <p>AMC1 MET.TR.220(e) 'Forecasts and other meteorological information' is aligned with the CRD version of MET.OR.220 'Forecasts and other meteorological information'.</p> <p>The MET.OR text has been realigned during the CRD drafting following some reference changes during the NPA drafting of the MET.TR rules.</p> <p>Please note that Appendix IV to NPA 2014-07 'MET rules of Annex IV — Subpart A of NPA 2013-08 (B)' provides for information only the related MET.OR. However, a note has been added to explicitly clarify that the MET.OR rule text is the one currently proposed in NPA</p>	



2013-08 and does not contain the possible changes stemming from the current revision under the CRD process.

3. Proposed amendments — 3.2. Draft Acceptable Means of Compliance and Guidance Material (Draft EASA Decision), Section 2 — Specific requirements — Chapter 2 — Technical requirements for aerodrome meteorological offices — AMC1 MET.TR.220(e)(1) & (2) Forecasts and other meteorological information 'FORMAT OF FLIGHT DOCUMENTATION'

p. 43

comment

27

comment by: Jan Sondij

This article is linked to MET.OR.215 and subsequently the reference to "220" should be changed to "215"

response

Not accepted

AMC1 MET.TR.220(e)(1)&(2) 'Forecasts and other meteorological information' is aligned with the CRD version of MET.OR.220 'Forecasts and other meteorological information'.

The MET.OR text has been realigned during the CRD drafting following some reference changes during the NPA drafting of the MET.TR rules.

Please note that Appendix IV to NPA 2014-07 'MET rules of Annex IV — Subpart A of NPA 2013-08 (B)' provides for information only the related MET.OR. However, a note has been added to explicitly clarify that the MET.OR rule text is the one currently proposed in NPA 2013-08 and does not contain the possible changes stemming from the current revision under the CRD process.

comment

180

comment by: ATC the Netherlands

This article is linked to MET.OR.215 and subsequently the reference to "220" should be changed to "215"

response

Not accepted

AMC1 MET.TR.220(e)(1)&(2) 'Forecasts and other meteorological information' is aligned with the CRD version of MET.OR.220 'Forecasts and other meteorological information'.

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3. Proposed amendments — 3.2. Draft Acceptable Means of Compliance and Guidance Material (Draft EASA Decision), Section 2 — Specific requirements — Chapter 2 — Technical requirements

p. 43



for aerodrome meteorological offices — AMC2 MET.TR.220(e)(1) & (2) Forecasts and other meteorological information 'FORMAT OF FLIGHT DOCUMENTATION'

comment	28	comment by: Jan Sondij
	This article is linked to MET.OR.215 and subsequently the reference to "220" should be changed to "215"	
response	<p><i>Not accepted</i></p> <p>AMC2 MET.TR.220(e)(1)&(2) 'Forecasts and other meteorological information' is aligned with the CRD version of MET.OR.220 'Forecasts and other meteorological information'.</p> <p>The MET.OR text has been realigned during the CRD drafting following some reference changes during the NPA drafting of the MET.TR rules.</p> <p>Please note that Appendix IV to NPA 2014-07 'MET rules of Annex IV — Subpart A of NPA 2013-08 (B)' provides for information only the related MET.OR. However, a note has been added to explicitly clarify that the MET.OR rule text is the one currently proposed in NPA 2013-08 and does not contain the possible changes stemming from the current revision under the CRD process.</p>	
comment	181	comment by: ATC the Netherlands
	This article is linked to MET.OR.215 and subsequently the reference to "220" should be changed to "215"	
response	<p><i>Not accepted</i></p> <p>AMC2 MET.TR.220(e)(1)&(2) 'Forecasts and other meteorological information' is aligned with the CRD version of MET.OR.220 'Forecasts and other meteorological information'.</p> <p>The MET.OR text has been realigned during the CRD drafting following some reference changes during the NPA drafting of the MET.TR rules.</p> <p>Please note that Appendix IV to NPA 2014-07 'MET rules of Annex IV — Subpart A of NPA 2013-08 (B)' provides for information only the related MET.OR. However, a note has been added to explicitly clarify that the MET.OR rule text is the one currently proposed in NPA 2013-08 and does not contain the possible changes stemming from the current revision under the CRD process.</p>	

3. Proposed amendments — 3.2. Draft Acceptable Means of Compliance and Guidance Material (Draft EASA Decision), Section 2 — Specific requirements — Chapter 2 — Technical requirements for aerodrome meteorological offices — AMC1 MET.TR.220(f) Forecasts and other meteorological information 'CHARACTERISTICS OF CHARTS'

p. 43-44

comment	29	comment by: Jan Sondij
	This article is linked to MET.OR.215 and subsequently the reference to "220" should be	



	changed to "215"
response	<p><i>Not accepted</i></p> <p>AMC1 MET.TR.220(f) 'Forecasts and other meteorological information' is aligned with the CRD version of MET.OR.220 'Forecasts and other meteorological information'.</p> <p>The MET.OR text has been realigned during the CRD drafting following some reference changes during the NPA drafting of the MET.TR rules.</p> <p>Please note that Appendix IV to NPA 2014-07 'MET rules of Annex IV — Subpart A of NPA 2013-08 (B)' provides for information only the related MET.OR. However, a note has been added to explicitly clarify that the MET.OR rule text is the one currently proposed in NPA 2013-08 and does not contain the possible changes stemming from the current revision under the CRD process.</p>
comment	<p>84 comment by: René Meier, Europe Air Sports</p>
	<p>AMC1 MET.TR.220(f) page 44/135 Charts - Short-haul flights Question: "1:15 x 106": What is this?</p>
response	<p><i>Noted</i></p> <p>This was an editorial error. It has been corrected and is now '1:15 × 10⁶'.</p>
comment	<p>182 comment by: ATC the Netherlands</p>
	<p>This article is linked to MET.OR.215 and subsequently the reference to "220" should be changed to "215"</p>
response	<p><i>Not accepted</i></p> <p>AMC1 MET.TR.220(f) 'Forecasts and other meteorological information' is aligned with the CRD version of MET.OR.220 'Forecasts and other meteorological information'.</p> <p>The MET.OR text has been realigned during the CRD drafting following some reference changes during the NPA drafting of the MET.TR rules.</p> <p>Please note that Appendix IV to NPA 2014-07 'MET rules of Annex IV — Subpart A of NPA 2013-08 (B)' provides for information only the related MET.OR. However, a note has been added to explicitly clarify that the MET.OR rule text is the one currently proposed in NPA 2013-08 and does not contain the possible changes stemming from the current revision under the CRD process.</p>



for aerodrome meteorological offices — AMC2 MET.TR.220(f) Forecasts and other meteorological information 'SET OF CHARTS TO BE PROVIDED'

comment	30	comment by: Jan Sondij
	This article is linked to MET.OR.215 and subsequently the reference to "220" should be changed to "215"	
response	<p><i>Not accepted</i></p> <p>AMC2 MET.TR.220(f) 'Forecasts and other meteorological information' is aligned with the CRD version of MET.OR.220 'Forecasts and other meteorological information'.</p> <p>The MET.OR text has been realigned during the CRD drafting following some reference changes during the NPA drafting of the MET.TR rules.</p> <p>Please note that Appendix IV to NPA 2014-07 'MET rules of Annex IV — Subpart A of NPA 2013-08 (B)' provides for information only the related MET.OR. However, a note has been added to explicitly clarify that the MET.OR rule text is the one currently proposed in NPA 2013-08 and does not contain the possible changes stemming from the current revision under the CRD process.</p>	
comment	183	comment by: ATC the Netherlands
	This article is linked to MET.OR.215 and subsequently the reference to "220" should be changed to "215"	
response	<p><i>Not accepted</i></p> <p>AMC2 MET.TR.220(f) 'Forecasts and other meteorological information' is aligned with the CRD version of MET.OR.220 'Forecasts and other meteorological information'.</p> <p>The MET.OR text has been realigned during the CRD drafting following some reference changes during the NPA drafting of the MET.TR rules.</p> <p>Please note that Appendix IV to NPA 2014-07 'MET rules of Annex IV — Subpart A of NPA 2013-08 (B)' provides for information only the related MET.OR. However, a note has been added to explicitly clarify that the MET.OR rule text is the one currently proposed in NPA 2013-08 and does not contain the possible changes stemming from the current revision under the CRD process.</p>	

3. Proposed amendments — 3.2. Draft Acceptable Means of Compliance and Guidance Material (Draft EASA Decision), Section 2 — Specific requirements — Chapter 2 — Technical requirements for aerodrome meteorological offices — GM1 MET.TR.220(f) Forecasts and other meteorological information 'CHARTS — SHORT-HAUL FLIGHTS'

p. 44

comment	31	comment by: Jan Sondij
	This article is linked to MET.OR.215 and subsequently the reference to "220" should be	



	changed to "215"
response	<p><i>Not accepted</i></p> <p>GM1 MET.TR.220(f) 'Forecasts and other meteorological information' is aligned with the CRD version of MET.OR.220 'Forecasts and other meteorological information'.</p> <p>The MET.OR text has been realigned during the CRD drafting following some reference changes during the NPA drafting of the MET.TR rules.</p> <p>Please note that Appendix IV to NPA 2014-07 'MET rules of Annex IV — Subpart A of NPA 2013-08 (B)' provides for information only the related MET.OR. However, a note has been added to explicitly clarify that the MET.OR rule text is the one currently proposed in NPA 2013-08 and does not contain the possible changes stemming from the current revision under the CRD process.</p>
comment	<p>184 comment by: ATC the Netherlands</p>
	<p>This article is linked to MET.OR.215 and subsequently the reference to "220" should be changed to "215"</p>
response	<p><i>Not accepted</i></p> <p>GM1 MET.TR.220(f) 'Forecasts and other meteorological information' is aligned with the CRD version of MET.OR.220 'Forecasts and other meteorological information'.</p> <p>The MET.OR text has been realigned during the CRD drafting following some reference changes during the NPA drafting of the MET.TR rules.</p> <p>Please note that Appendix IV to NPA 2014-07 'MET rules of Annex IV — Subpart A of NPA 2013-08 (B)' provides for information only the related MET.OR. However, a note has been added to explicitly clarify that the MET.OR rule text is the one currently proposed in NPA 2013-08 and does not contain the possible changes stemming from the current revision under the CRD process.</p>

3. Proposed amendments — 3.2. Draft Acceptable Means of Compliance and Guidance Material (Draft EASA Decision), Section 2 — Specific requirements — Chapter 2 — Technical requirements for aerodrome meteorological offices — GM1 MET.TR.220(g) Forecasts and other meteorological information 'CONCATENATED ROUTE-SPECIFIC FORECASTS'

p. 44

comment	<p>32 comment by: Jan Sondij</p>
	<p>This article is linked to MET.OR.215 and subsequently the reference to "220" should be changed to "215"</p>
response	<p><i>Not accepted</i></p> <p>GM1 MET.TR.220(g) 'Forecasts and other meteorological information' is aligned with the CRD version of MET.OR.220 'Forecasts and other meteorological information'.</p>



The MET.OR text has been realigned during the CRD drafting following some reference changes during the NPA drafting of the MET.TR rules.

Please note that Appendix IV to NPA 2014-07 'MET rules of Annex IV — Subpart A of NPA 2013-08 (B)' provides for information only the related MET.OR. However, a note has been added to explicitly clarify that the MET.OR rule text is the one currently proposed in NPA 2013-08 and does not contain the possible changes stemming from the current revision under the CRD process.

comment

185

comment by: ATC the Netherlands

This article is linked to MET.OR.215 and subsequently the reference to "220" should be changed to "215"

response

Not accepted

GM1 MET.TR.220(g) 'Forecasts and other meteorological information' is aligned with the CRD version of MET.OR.220 'Forecasts and other meteorological information'.

The MET.OR text has been realigned during the CRD drafting following some reference changes during the NPA drafting of the MET.TR rules.

Please note that Appendix IV to NPA 2014-07 'MET rules of Annex IV — Subpart A of NPA 2013-08 (B)' provides for information only the related MET.OR. However, a note has been added to explicitly clarify that the MET.OR rule text is the one currently proposed in NPA 2013-08 and does not contain the possible changes stemming from the current revision under the CRD process.

3. Proposed amendments — 3.2. Draft Acceptable Means of Compliance and Guidance Material (Draft EASA Decision), Section 2 — Specific requirements — Chapter 2 — Technical requirements for aerodrome meteorological offices — AMC1 MET.TR.220(i) Forecasts and other meteorological information 'CLIMATOLOGICAL INFORMATION — PERIOD OF OBSERVATION'

p. 44

comment

33

comment by: Jan Sondij

This article is linked to MET.OR.215 and subsequently the reference to "220" should be changed to "215"

response

Not accepted

AMC1 MET.TR.220(i) 'Forecasts and other meteorological information' is aligned with the CRD version of MET.OR.220 'Forecasts and other meteorological information'.

The MET.OR text has been realigned during the CRD drafting following some reference changes during the NPA drafting of the MET.TR rules.

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2013-08 and does not contain the possible changes stemming from the current revision under the CRD process.

comment 186 comment by: ATC the Netherlands

This article is linked to MET.OR.215 and subsequently the reference to "220" should be changed to "215"

response Not accepted

AMC1 MET.TR.220(i) 'Forecasts and other meteorological information' is aligned with the CRD version of MET.OR.220 'Forecasts and other meteorological information'.

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3. Proposed amendments — 3.2. Draft Acceptable Means of Compliance and Guidance Material (Draft EASA Decision), Section 2 — Specific requirements — Chapter 2 — Technical requirements for aerodrome meteorological offices — AMC2 MET.TR.220(i) Forecasts and other meteorological information 'CLIMATOLOGICAL DATA RELATED TO SITES FOR NEW AERODROMES'

p. 44-45

comment 34 comment by: Jan Sondij

This article is linked to MET.OR.215 and subsequently the reference to "220" should be changed to "215"

response Not accepted

AMC2 MET.TR.220(i) 'Forecasts and other meteorological information' is aligned with the CRD version of MET.OR.220 'Forecasts and other meteorological information'.

The MET.OR text has been realigned during the CRD drafting following some reference changes during the NPA drafting of the MET.TR rules.

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comment 129 comment by: Belgocontrol



AMC1-3
MET.TR.220 (i)

These TR are transposed from Part 1 of ICAO Annex 3 - §xxx; Unfortunately no traceability for this has been made available in NPA (B) or in a separate NPA (C) or updated 2013-08 NPA (e)

response *Noted*

This statement is correct. The traceability for the chapters of Part I that were identified to be transposed during the MET.TR phase is missing because the drafting document only contains the Appendices to Part II of ICAO Annex 3 and not Part I. This is due to the fact that the drafting documents for both MET.OR and MET.TR contain only their respective parts. A consolidated drafting document covering the entire ICAO Annex 3 will be provided at a later stage, for traceability purposes only.

comment 187

comment by: *ATC the Netherlands*

This article is linked to MET.OR.215 and subsequently the reference to "220" should be changed to "215"

response *Not accepted*

AMC2 MET.TR.220(i) 'Forecasts and other meteorological information' is aligned with the CRD version of MET.OR.220 'Forecasts and other meteorological information'.

The MET.OR text has been realigned during the CRD drafting following some reference changes during the NPA drafting of the MET.TR rules.

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3. Proposed amendments — 3.2. Draft Acceptable Means of Compliance and Guidance Material (Draft EASA Decision), Section 2 — Specific requirements — Chapter 2 — Technical requirements for aerodrome meteorological offices — AMC3 MET.TR.220(i) Forecasts and other meteorological information 'PURPOSE OF CLIMATOLOGICAL SUMMARIES'

p. 45

comment 35

comment by: *Jan Sondij*

This article is linked to MET.OR.215 and subsequently the reference to "220" should be changed to "215"

response *Not accepted*



AMC3 MET.TR.220(i) 'Forecasts and other meteorological information' is aligned with the CRD version of MET.OR.220 'Forecasts and other meteorological information'.

The MET.OR text has been realigned during the CRD drafting following some reference changes during the NPA drafting of the MET.TR rules.

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comment

188

comment by: ATC the Netherlands

This article is linked to MET.OR.215 and subsequently the reference to "220" should be changed to "215"

response

Not accepted

AMC3 MET.TR.220(i) 'Forecasts and other meteorological information' is aligned with the CRD version of MET.OR.220 'Forecasts and other meteorological information'.

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3. Proposed amendments — 3.2. Draft Acceptable Means of Compliance and Guidance Material (Draft EASA Decision), Section 2 — Specific requirements — Chapter 2 — Technical requirements for aerodrome meteorological offices — AMC4 MET.TR.220(i) Forecast and other meteorological information 'CLIMATOLOGICAL TABLE — GENERAL'

p. 45

comment

36

comment by: Jan Sondij

This article is linked to MET.OR.215 and subsequently the reference to "220" should be changed to "215"

response

Not accepted

AMC4 MET.TR.220(i) 'Forecasts and other meteorological information' is aligned with the CRD version of MET.OR.220 'Forecasts and other meteorological information'.

The MET.OR text has been realigned during the CRD drafting following some reference changes during the NPA drafting of the MET.TR rules.



Please note that Appendix IV to NPA 2014-07 'MET rules of Annex IV — Subpart A of NPA 2013-08 (B)' provides for information only the related MET.OR. However, a note has been added to explicitly clarify that the MET.OR rule text is the one currently proposed in NPA 2013-08 and does not contain the possible changes stemming from the current revision under the CRD process.

comment 189

comment by: ATC the Netherlands

This article is linked to MET.OR.215 and subsequently the reference to "220" should be changed to "215"

response *Not accepted*

AMC4 MET.TR.220(i) 'Forecasts and other meteorological information' is aligned with the CRD version of MET.OR.220 'Forecasts and other meteorological information'.

The MET.OR text has been realigned during the CRD drafting following some reference changes during the NPA drafting of the MET.TR rules.

Please note that Appendix IV to NPA 2014-07 'MET rules of Annex IV — Subpart A of NPA 2013-08 (B)' provides for information only the related MET.OR. However, a note has been added to explicitly clarify that the MET.OR rule text is the one currently proposed in NPA 2013-08 and does not contain the possible changes stemming from the current revision under the CRD process.

3. Proposed amendments — 3.2. Draft Acceptable Means of Compliance and Guidance Material (Draft EASA Decision), Section 2 — Specific requirements — Chapter 2 — Technical requirements for aerodrome meteorological offices — AMC5 MET.TR.220(i) Forecast and other meteorological information 'CLIMATOLOGICAL TABLE — GENERAL'

p. 45

comment 37

comment by: Jan Sondij

This article is linked to MET.OR.215 and subsequently the reference to "220" should be changed to "215"

response *Not accepted*

AMC5 MET.TR.220(i) 'Forecasts and other meteorological information' is aligned with the CRD version of MET.OR.220 'Forecasts and other meteorological information'.

The MET.OR text has been realigned during the CRD drafting following some reference changes during the NPA drafting of the MET.TR rules.

Please note that Appendix IV to NPA 2014-07 'MET rules of Annex IV — Subpart A of NPA 2013-08 (B)' provides for information only the related MET.OR. However, a note has been added to explicitly clarify that the MET.OR rule text is the one currently proposed in NPA 2013-08 and does not contain the possible changes stemming from the current revision under the CRD process.



comment	190	comment by: ATC the Netherlands
	This article is linked to MET.OR.215 and subsequently the reference to "220" should be changed to "215"	
response	<p><i>Not accepted</i></p> <p>AMC5 MET.TR.220(i) 'Forecasts and other meteorological information' is aligned with the CRD version of MET.OR.220 'Forecasts and other meteorological information'.</p> <p>The MET.OR text has been realigned during the CRD drafting following some reference changes during the NPA drafting of the MET.TR rules.</p> <p>Please note that Appendix IV to NPA 2014-07 'MET rules of Annex IV — Subpart A of NPA 2013-08 (B)' provides for information only the related MET.OR. However, a note has been added to explicitly clarify that the MET.OR rule text is the one currently proposed in NPA 2013-08 and does not contain the possible changes stemming from the current revision under the CRD process.</p>	

3. Proposed amendments — 3.2. Draft Acceptable Means of Compliance and Guidance Material (Draft EASA Decision), Section 2 — Specific requirements — Chapter 2 — Technical requirements for aerodrome meteorological offices — AMC6 MET.TR.220(i) Forecast and other meteorological information 'CLIMATOLOGICAL SUMMARIES — GENERAL'

p. 45

comment	38	comment by: Jan Sondij
	This article is linked to MET.OR.215 and subsequently the reference to "220" should be changed to "215"	
response	<p><i>Not accepted</i></p> <p>AMC6 MET.TR.220(i) 'Forecasts and other meteorological information' is aligned with the CRD version of MET.OR.220 'Forecasts and other meteorological information'.</p> <p>The MET.OR text has been realigned during the CRD drafting following some reference changes during the NPA drafting of the MET.TR rules.</p> <p>Please note that Appendix IV to NPA 2014-07 'MET rules of Annex IV — Subpart A of NPA 2013-08 (B)' provides for information only the related MET.OR. However, a note has been added to explicitly clarify that the MET.OR rule text is the one currently proposed in NPA 2013-08 and does not contain the possible changes stemming from the current revision under the CRD process.</p>	
comment	191	comment by: ATC the Netherlands
	This article is linked to MET.OR.215 and subsequently the reference to "220" should be changed to "215"	
response	<i>Not accepted</i>	



AMC6 MET.TR.220(i) 'Forecasts and other meteorological information' is aligned with the CRD version of MET.OR.220 'Forecasts and other meteorological information'.

The MET.OR text has been realigned during the CRD drafting following some reference changes during the NPA drafting of the MET.TR rules.

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3. Proposed amendments — 3.2. Draft Acceptable Means of Compliance and Guidance Material (Draft EASA Decision), Section 2 — Specific requirements — Chapter 2 — Technical requirements for aerodrome meteorological offices — GM1 MET.TR.220(i) Forecasts and other meteorological information 'CLIMATOLOGICAL INFORMATION — GENERAL'

p. 45

comment

39

comment by: Jan Sondij

This article is linked to MET.OR.215 and subsequently the reference to "220" should be changed to "215"

response

Not accepted

GM1 MET.TR.220(i) 'Forecasts and other meteorological information' is aligned with the CRD version of MET.OR.220 'Forecasts and other meteorological information'.

The MET.OR text has been realigned during the CRD drafting following some reference changes during the NPA drafting of the MET.TR rules.

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comment

130

comment by: Belgocontrol

GM1&3
MET.TR.220 (i)

These TR are transposed from Part 1 of ICAO Annex 3 - §xxx; Unfortunately no traceability for this has been made available in NPA (B) or in a separate NPA (C) or updated 2013-08 NPA (e)

response

Noted

This statement is correct. The traceability for the chapters of Part I that were identified to be transposed during the MET.TR phase is missing because the drafting document only contains the Appendices to Part II of ICAO Annex 3 and not Part I. This is due to the fact that the drafting documents for both MET.OR and MET.TR contain only their respective parts. A consolidated drafting document covering the entire ICAO Annex 3 will be provided at a later stage, for traceability purposes only.

comment 192

comment by: ATC the Netherlands

This article is linked to MET.OR.215 and subsequently the reference to "220" should be changed to "215"

response Not accepted

GM1 MET.TR.220(i) 'Forecasts and other meteorological information' is aligned with the CRD version of MET.OR.220 'Forecasts and other meteorological information'.

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3. Proposed amendments — 3.2. Draft Acceptable Means of Compliance and Guidance Material (Draft EASA Decision), Section 2 — Specific requirements — Chapter 2 — Technical requirements for aerodrome meteorological offices — GM2 MET.TR.220(i) Forecast and other meteorological information 'MODELS OF CLIMATOLOGICAL SUMMARIES'

p. 46

comment 40

comment by: Jan Sondij

This article is linked to MET.OR.215 and subsequently the reference to "220" should be changed to "215"

response Not accepted

GM2 MET.TR.220(i) 'Forecasts and other meteorological information' is aligned with the CRD version of MET.OR.220 'Forecasts and other meteorological information'.

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added to explicitly clarify that the MET.OR rule text is the one currently proposed in NPA 2013-08 and does not contain the possible changes stemming from the current revision under the CRD process.

comment

193

comment by: ATC the Netherlands

This article is linked to MET.OR.215 and subsequently the reference to "220" should be changed to "215"

response

Not accepted

GM2 MET.TR.220(i) 'Forecasts and other meteorological information' is aligned with the CRD version of MET.OR.220 'Forecasts and other meteorological information'.

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p. 46

comment

41

comment by: Jan Sondij

This article is linked to MET.OR.215 and subsequently the reference to "220" should be changed to "215"

response

Not accepted

GM3 MET.TR.220(i) 'Forecasts and other meteorological information' is aligned with the CRD version of MET.OR.220 'Forecasts and other meteorological information'.

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comment

131

comment by: Belgocontrol



response

Noted

No comment was posted here.

comment

194

comment by: ATC the Netherlands

This article is linked to MET.OR.215 and subsequently the reference to "220" should be changed to "215"

response

Not accepted

GM3 MET.TR.220(i) 'Forecasts and other meteorological information' is aligned with the CRD version of MET.OR.220 'Forecasts and other meteorological information'.

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3. Proposed amendments — 3.2. Draft Acceptable Means of Compliance and Guidance Material (Draft EASA Decision), Section 2 — Specific requirements — Chapter 2 — Technical requirements for aerodrome meteorological offices — GM1 MET.TR.225(a)(8) Aerodrome forecasts (TAF) 'VISIBILITY'

p. 46

comment

42

comment by: Jan Sondij

This article is linked to MET.OR.220 and subsequently the reference to "225" should be changed to "220".

response

Not accepted

GM1 MET.TR.225 'Aerodrome forecasts (TAF)' is aligned with the CRD version of MET.OR.225 'Aerodrome forecasts (TAF)'.

The MET.OR text has been realigned during the CRD drafting following some reference changes during the NPA drafting of the MET.TR rules.

Please note that Appendix IV to NPA 2014-07 'MET rules of Annex IV — Subpart A of NPA 2013-08 (B)' provides for information only the related MET.OR. However, a note has been added to explicitly clarify that the MET.OR rule text is the one currently proposed in NPA 2013-08 and does not contain the possible changes stemming from the current revision under the CRD process.

comment

195

comment by: ATC the Netherlands



response

This article is linked to MET.OR.220 and subsequently the reference to "225" should be changed to "220".

Not accepted

GM1 MET.TR.225(a)(8) 'Aerodrome forecasts (TAF)' is aligned with the CRD version of MET.OR.225 'Aerodrome forecasts (TAF)'.

The MET.OR text has been realigned during the CRD drafting following some reference changes during the NPA drafting of the MET.TR rules.

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3. Proposed amendments — 3.2. Draft Acceptable Means of Compliance and Guidance Material (Draft EASA Decision), Section 2 — Specific requirements — Chapter 2 — Technical requirements for aerodrome meteorological offices — AMC1 MET.TR.225(b) Aerodrome forecasts (TAF) 'PERIOD OF VALIDITY'

p. 46

comment

43

comment by: Jan Sondij

This article is linked to MET.OR.220 and subsequently the reference to "225" should be changed to "220".

response

Not accepted

AMC1 MET.TR.225 'Aerodrome forecasts (TAF)' is aligned with the CRD version of MET.OR.225 'Aerodrome forecasts (TAF)'.

The MET.OR text has been realigned during the CRD drafting following some reference changes during the NPA drafting of the MET.TR rules.

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comment

248

comment by: IMO

(a)

Question is EASA setting the rules for Europe with these times.

Explanation of the practice in Iceland

In Iceland we issue for the 4 main airports 24-hour TAFs every 3 hours. No 9-hour TAFs for them.



	<p>For the small aerodromes with limited hours we issue 9-hour TAFs valid 08-17, 11-20 and 17-02, depending on their operating hours. The first METAR is done at 0700 so IMO issues the TAF after that.</p> <p>Waiting with TAF until 09Z makes no operating sense and we cannot issue TAFs at 06Z because there are no METARs.</p> <p>(a) and (c)</p> <p>According to these two rules if the first landing/takeoff is at 0910Z then the TAF should be issued at 06Z and the first METAR at that airport would have to be issued before that. At small aerodromes with manned METARs only this would add costs.</p>
response	<p><i>Noted</i></p> <p>The periods of validity for 9, 24 and 30-hour TAF are transposed from the EUR ANP (point 14 and 15) as Acceptable Means of Compliance. It means that in Iceland, a different scenario is feasible, e.g. for small aerodromes, in agreement with the competent authority.</p>
comment	<p>289 comment by: LEGMC</p> <p>GM1 MET.TR.225(b), (e)</p> <p>There are states in EUR which issue 24-hour TAFs every 3 hours, based on requirements from aviation users.</p>
response	<p><i>Noted</i></p> <p>The Agency takes note of the comment.</p>

3. Proposed amendments — 3.2. Draft Acceptable Means of Compliance and Guidance Material (Draft EASA Decision), Section 2 — Specific requirements — Chapter 2 — Technical requirements for aerodrome meteorological offices — GM1 MET.TR.225(c) Aerodrome forecasts (TAF) 'EXAMPLE OF TAF'

p. 46

comment	<p>44 comment by: Jan Sondij</p> <p>This article is linked to MET.OR.220 and subsequently the reference to "225" should be changed to "220".</p>
response	<p><i>Not accepted</i></p> <p>GM1 MET.TR.225(c) 'Aerodrome forecasts (TAF)' is aligned with the CRD version of MET.OR.225 'Aerodrome forecasts (TAF)'.</p> <p>The MET.OR text has been realigned during the CRD drafting following some reference changes during the NPA drafting of the MET.TR rules.</p> <p>Please note that Appendix IV to NPA 2014-07 'MET rules of Annex IV — Subpart A of NPA</p>



2013-08 (B)' provides for information only the related MET.OR. However, a note has been added to explicitly clarify that the MET.OR rule text is the one currently proposed in NPA 2013-08 and does not contain the possible changes stemming from the current revision under the CRD process.

comment

196

comment by: ATC the Netherlands

This article is linked to MET.OR.220 and subsequently the reference to "225" should be changed to "220".

response

Not accepted

GM1 MET.TR.225(c) 'Aerodrome forecasts (TAF)' is aligned with the CRD version of MET.OR.225 'Aerodrome forecasts (TAF)'.

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3. Proposed amendments — 3.2. Draft Acceptable Means of Compliance and Guidance Material (Draft EASA Decision), Section 2 — Specific requirements — Chapter 2 — Technical requirements for aerodrome meteorological offices — GM2 MET.TR.225(c) Aerodrome forecasts (TAF) 'EXAMPLE OF CANCELLATION OF TAF'

p. 47

comment

45

comment by: Jan Sondij

This article is linked to MET.OR.220 and subsequently the reference to "225" should be changed to "220".

response

Not accepted

GM2 MET.TR.225(c) 'Aerodrome forecasts (TAF)' is aligned with the CRD version of MET.OR.225 'Aerodrome forecasts (TAF)'.

The MET.OR text has been realigned during the CRD drafting following some reference changes during the NPA drafting of the MET.TR rules.

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comment	197	comment by: ATC the Netherlands
	This article is linked to MET.OR.220 and subsequently the reference to "225" should be changed to "220".	
response	<p><i>Not accepted</i></p> <p>GM2 MET.TR.225(c) 'Aerodrome forecasts (TAF)' is aligned with the CRD version of MET.OR.225 'Aerodrome forecasts (TAF)'.</p> <p>The MET.OR text has been realigned during the CRD drafting following some reference changes during the NPA drafting of the MET.TR rules.</p> <p>Please note that Appendix IV to NPA 2014-07 'MET rules of Annex IV — Subpart A of NPA 2013-08 (B)' provides for information only the related MET.OR. However, a note has been added to explicitly clarify that the MET.OR rule text is the one currently proposed in NPA 2013-08 and does not contain the possible changes stemming from the current revision under the CRD process.</p>	

3. Proposed amendments — 3.2. Draft Acceptable Means of Compliance and Guidance Material (Draft EASA Decision), Section 2 — Specific requirements — Chapter 2 — Technical requirements for aerodrome meteorological offices — GM3 MET.TR.225(c) Aerodrome forecasts (TAF) 'TAF CODE FORM'

p. 47

comment	46	comment by: Jan Sondij
	This article is linked to MET.OR.220 and subsequently the reference to "225" should be changed to "220".	
response	<p><i>Not accepted</i></p> <p>GM3 MET.TR.225(c) 'Aerodrome forecasts (TAF)' is aligned with the CRD version of MET.OR.225 'Aerodrome forecasts (TAF)'.</p> <p>The MET.OR text has been realigned during the CRD drafting following some reference changes during the NPA drafting of the MET.TR rules.</p> <p>Please note that Appendix IV to NPA 2014-07 'MET rules of Annex IV — Subpart A of NPA 2013-08 (B)' provides for information only the related MET.OR. However, a note has been added to explicitly clarify that the MET.OR rule text is the one currently proposed in NPA 2013-08 and does not contain the possible changes stemming from the current revision under the CRD process.</p>	
comment	198	comment by: ATC the Netherlands
	This article is linked to MET.OR.220 and subsequently the reference to "225" should be changed to "220".	
response	<i>Not accepted</i>	



GM3 MET.TR.225(c) 'Aerodrome forecasts (TAF)' is aligned with the CRD version of MET.OR.225 'Aerodrome forecasts (TAF)'.

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Please note that Appendix IV to NPA 2014-07 'MET rules of Annex IV — Subpart A of NPA 2013-08 (B)' provides for information only the related MET.OR. However, a note has been added to explicitly clarify that the MET.OR rule text is the one currently proposed in NPA 2013-08 and does not contain the possible changes stemming from the current revision under the CRD process.

3. Proposed amendments — 3.2. Draft Acceptable Means of Compliance and Guidance Material (Draft EASA Decision), Section 2 — Specific requirements — Chapter 2 — Technical requirements for aerodrome meteorological offices — GM1 MET.TR.225(d) Aerodrome forecasts (TAF) 'FORMAT OF TAF'

p. 47

comment

47

comment by: Jan Sondij

This article is linked to MET.OR.220 and subsequently the reference to "225" should be changed to "220".

response

Not accepted

GM1 MET.TR.225(d) 'Aerodrome forecasts (TAF)' is aligned with the CRD version of MET.OR.225 'Aerodrome forecasts (TAF)'.

The MET.OR text has been realigned during the CRD drafting following some reference changes during the NPA drafting of the MET.TR rules.

Please note that Appendix IV to NPA 2014-07 'MET rules of Annex IV — Subpart A of NPA 2013-08 (B)' provides for information only the related MET.OR. However, a note has been added to explicitly clarify that the MET.OR rule text is the one currently proposed in NPA 2013-08 and does not contain the possible changes stemming from the current revision under the CRD process.

comment

199

comment by: ATC the Netherlands

This article is linked to MET.OR.220 and subsequently the reference to "225" should be changed to "220".

response

Not accepted

GM1 MET.TR.225(d) 'Aerodrome forecasts (TAF)' is aligned with the CRD version of MET.OR.225 'Aerodrome forecasts (TAF)'.

The MET.OR text has been realigned during the CRD drafting following some reference changes during the NPA drafting of the MET.TR rules.



Please note that Appendix IV to NPA 2014-07 'MET rules of Annex IV — Subpart A of NPA 2013-08 (B)' provides for information only the related MET.OR. However, a note has been added to explicitly clarify that the MET.OR rule text is the one currently proposed in NPA 2013-08 and does not contain the possible changes stemming from the current revision under the CRD process.

3. Proposed amendments — 3.2. Draft Acceptable Means of Compliance and Guidance Material (Draft EASA Decision), Section 2 — Specific requirements — Chapter 2 — Technical requirements for aerodrome meteorological offices — GM1 MET.TR.225(e) Aerodrome forecasts (TAF) 'ACCURACY OF FORECASTS'

p. 47

comment

48

comment by: Jan Sondij

This article is linked to MET.OR.220 and subsequently the reference to "225" should be changed to "220".

response

Not accepted

AMC1 MET.TR.225(f) 'Aerodrome forecasts (TAF)' is aligned with the CRD version of MET.OR.225 'Aerodrome forecasts (TAF)'.

The MET.OR text has been realigned during the CRD drafting following some reference changes during the NPA drafting of the MET.TR rules.

Please note that Appendix IV to NPA 2014-07 'MET rules of Annex IV — Subpart A of NPA 2013-08 (B)' provides for information only the related MET.OR. However, a note has been added to explicitly clarify that the MET.OR rule text is the one currently proposed in NPA 2013-08 and does not contain the possible changes stemming from the current revision under the CRD process.

comment

146

comment by: SWEDISH TRANSPORT AGENCY

Include the text in the tabel in Attachement B to ICAO Annex 3 instead it is just half a page.

response

Accepted

The table of Attachment B of ICAO Annex 3 is now included.

comment

200

comment by: ATC the Netherlands

This article is linked to MET.OR.220 and subsequently the reference to "225" should be changed to "220".

response

Not accepted

GM1 MET.TR.225(e) 'Aerodrome forecasts (TAF)' is aligned with the CRD version of MET.OR.225 'Aerodrome forecasts (TAF)'.

The MET.OR text has been realigned during the CRD drafting following some reference



changes during the NPA drafting of the MET.TR rules.

Please note that Appendix IV to NPA 2014-07 'MET rules of Annex IV — Subpart A of NPA 2013-08 (B)' provides for information only the related MET.OR. However, a note has been added to explicitly clarify that the MET.OR rule text is the one currently proposed in NPA 2013-08 and does not contain the possible changes stemming from the current revision under the CRD process.

3. Proposed amendments — 3.2. Draft Acceptable Means of Compliance and Guidance Material (Draft EASA Decision), Section 2 — Specific requirements — Chapter 2 — Technical requirements for aerodrome meteorological offices — AMC1 MET.TR.225(f) Aerodrome forecasts (TAF) p. 47-48
'CRITERIA USED FOR THE INCLUSION OF CHANGE GROUPS IN TAF'

comment	<p>49</p> <p>comment by: <i>Jan Sondij</i></p> <p>This article is linked to MET.OR.220 and subsequently the reference to "225" should be changed to "220".</p>
response	<p><i>Not accepted</i></p> <p>AMC1 MET.TR.225(f) 'Aerodrome forecasts (TAF)' is aligned with the CRD version of MET.OR.225 'Aerodrome forecasts (TAF)'.</p> <p>The MET.OR text has been realigned during the CRD drafting following some reference changes during the NPA drafting of the MET.TR rules.</p> <p>Please note that Appendix IV to NPA 2014-07 'MET rules of Annex IV — Subpart A of NPA 2013-08 (B)' provides for information only the related MET.OR. However, a note has been added to explicitly clarify that the MET.OR rule text is the one currently proposed in NPA 2013-08 and does not contain the possible changes stemming from the current revision under the CRD process.</p>
comment	<p>105</p> <p>comment by: <i>Finnish Meteorological Institute</i></p> <p>AMC1 MET.TR.225 (f)(c) CORRECTION "...is forecasted to change by 10kt..." EASA proposal is based on old ICAO Annex 3 text.</p> <p>AMC1 MET.TR.225 (f)(d) Operational significance should be agreed by the aerodrome meteorological office with the ATS units and operators concerned.</p>
response	<p><i>Accepted</i></p> <p>Corrected (The term 'change' was correctly reflected in NPA 2014-07 (B)).</p>



comment	201	comment by: ATC the Netherlands
	This article is linked to MET.OR.220 and subsequently the reference to "225" should be changed to "220".	
response	<p><i>Not accepted</i></p> <p>AMC1 MET.TR.225(f) 'Aerodrome forecasts (TAF)' is aligned with the CRD version of MET.OR.225 'Aerodrome forecasts (TAF)'.</p> <p>The MET.OR text has been realigned during the CRD drafting following some reference changes during the NPA drafting of the MET.TR rules.</p> <p>Please note that Appendix IV to NPA 2014-07 'MET rules of Annex IV — Subpart A of NPA 2013-08 (B)' provides for information only the related MET.OR. However, a note has been added to explicitly clarify that the MET.OR rule text is the one currently proposed in NPA 2013-08 and does not contain the possible changes stemming from the current revision under the CRD process.</p>	

3. Proposed amendments — 3.2. Draft Acceptable Means of Compliance and Guidance Material (Draft EASA Decision), Section 2 — Specific requirements — Chapter 2 — Technical requirements for aerodrome meteorological offices — GM1 MET.TR.225(f)(1) Aerodrome forecasts (TAF) 'USE OF CHANGE AND TIME INDICATORS IN TAF' p. 48-49

comment	50	comment by: Jan Sondij
	This article is linked to MET.OR.220 and subsequently the reference to "225" should be changed to "220".	
response	<p><i>Not accepted</i></p> <p>GM1 MET.TR.225(f)(1) 'Aerodrome forecasts (TAF)' is aligned with the CRD version of MET.OR.225 'Aerodrome forecasts (TAF)'.</p> <p>The MET.OR text has been realigned during the CRD drafting following some reference changes during the NPA drafting of the MET.TR rules.</p> <p>Please note that Appendix IV to NPA 2014-07 'MET rules of Annex IV — Subpart A of NPA 2013-08 (B)' provides for information only the related MET.OR. However, a note has been added to explicitly clarify that the MET.OR rule text is the one currently proposed in NPA 2013-08 and does not contain the possible changes stemming from the current revision under the CRD process.</p>	
comment	202	comment by: ATC the Netherlands
	This article is linked to MET.OR.220 and subsequently the reference to "225" should be changed to "220".	
response	<i>Not accepted</i>	



GM1 MET.TR.225(f) 'Aerodrome forecasts (TAF)' is aligned with the CRD version of MET.OR.225 'Aerodrome forecasts (TAF)'.

The MET.OR text has been realigned during the CRD drafting following some reference changes during the NPA drafting of the MET.TR rules.

Please note that Appendix IV to NPA 2014-07 'MET rules of Annex IV — Subpart A of NPA 2013-08 (B)' provides for information only the related MET.OR. However, a note has been added to explicitly clarify that the MET.OR rule text is the one currently proposed in NPA 2013-08 and does not contain the possible changes stemming from the current revision under the CRD process.

3. Proposed amendments — 3.2. Draft Acceptable Means of Compliance and Guidance Material (Draft EASA Decision), Section 2 — Specific requirements — Chapter 2 — Technical requirements for aerodrome meteorological offices — AMC1 MET.TR.225(f)(2)(iv) Aerodrome forecasts (TAF) & MET.TR.230(c)(1)(iii) Aerodrome forecasts — Landing (TREND) 'THRESHOLD VALUES'

p. 49

comment

51

comment by: Jan Sondij

This article is linked to MET.OR.220 (TAF) and MET.OR.225 (TREND) and subsequently the reference to "225" should be changed in "220" and the reference to "230" should be changed to "225".

response

Not accepted

AMC1 MET.TR.225(f)(2)(iv) 'Aerodrome forecasts (TAF)' & MET.TR.230(c)(1)(iii) Aerodrome forecasts — Landing (TREND) are aligned with the CRD version of MET.OR.225 'Aerodrome forecasts (TAF)' and MET.OR.230 'Aerodrome forecasts — Landing (TREND)'.

The MET.OR text has been realigned during the CRD drafting following some reference changes during the NPA drafting of the MET.TR rules.

Please note that Appendix IV to NPA 2014-07 'MET rules of Annex IV — Subpart A of NPA 2013-08 (B)' provides for information only the related MET.OR. However, a note has been added to explicitly clarify that the MET.OR rule text is the one currently proposed in NPA 2013-08 and does not contain the possible changes stemming from the current revision under the CRD process.

comment

203

comment by: ATC the Netherlands

This article is linked to MET.OR.220 (TAF) and MET.OR.225 (TREND) and subsequently the reference to "225" should be changed in "220" and the reference to "230" should be changed to "225".

response

Not accepted



AMC1 MET.TR.225(f)(2)(iv) Aerodrome forecasts (TAF) & MET.TR.230(c)(1)(iii) Aerodrome forecasts — Landing (TREND) are aligned with the CRD version of MET.OR.225 'Aerodrome forecasts (TAF)' and MET.OR.230 'Aerodrome forecasts — Landing (TREND)'.

The MET.OR text has been realigned during the CRD drafting following some reference changes during the NPA drafting of the MET.TR rules.

Please note that Appendix IV to NPA 2014-07 'MET rules of Annex IV — Subpart A of NPA 2013-08 (B)' provides for information only the related MET.OR. However, a note has been added to explicitly clarify that the MET.OR rule text is the one currently proposed in NPA 2013-08 and does not contain the possible changes stemming from the current revision under the CRD process.

3. Proposed amendments — 3.2. Draft Acceptable Means of Compliance and Guidance Material (Draft EASA Decision), Section 2 — Specific requirements — Chapter 2 — Technical requirements for aerodrome meteorological offices — AMC1 MET.TR.225(g) Aerodrome forecasts (TAF) 'USE OF PROBABILITY INDICATORS'

p. 49

comment 52

comment by: Jan Sondij

This article is linked to MET.OR.220 and subsequently the reference to "225" should be changed to "220".

response *Not accepted*

AMC1 MET.TR.225(g) 'Aerodrome forecasts (TAF)' is aligned with the CRD version of MET.OR.225 'Aerodrome forecasts (TAF)'.

The MET.OR text has been realigned during the CRD drafting following some reference changes during the NPA drafting of the MET.TR rules.

Please note that Appendix IV to NPA 2014-07 'MET rules of Annex IV — Subpart A of NPA 2013-08 (B)' provides for information only the related MET.OR. However, a note has been added to explicitly clarify that the MET.OR rule text is the one currently proposed in NPA 2013-08 and does not contain the possible changes stemming from the current revision under the CRD process.

3. Proposed amendments — 3.2. Draft Acceptable Means of Compliance and Guidance Material (Draft EASA Decision), Section 2 — Specific requirements — Chapter 2 — Technical requirements for aerodrome meteorological offices — GM1 MET.TR.225(g) Aerodrome forecasts (TAF) 'USE OF PROBABILITY INDICATORS'

p. 49

comment 53

comment by: Jan Sondij



response

This article is linked to MET.OR.220 and subsequently the reference to "225" should be changed to "220".

Not accepted

GM1 MET.TR.225(g) 'Aerodrome forecasts (TAF)' is aligned with the CRD version of MET.OR.225 'Aerodrome forecasts (TAF)'.

The MET.OR text has been realigned during the CRD drafting following some reference changes during the NPA drafting of the MET.TR rules.

Please note that Appendix IV to NPA 2014-07 'MET rules of Annex IV — Subpart A of NPA 2013-08 (B)' provides for information only the related MET.OR. However, a note has been added to explicitly clarify that the MET.OR rule text is the one currently proposed in NPA 2013-08 and does not contain the possible changes stemming from the current revision under the CRD process.

comment

204

comment by: *ATC the Netherlands*

This article is linked to MET.OR.220 and subsequently the reference to "225" should be changed to "220".

response

Not accepted

GM1 MET.TR.225(g) 'Aerodrome forecasts (TAF)' is aligned with the CRD version of MET.OR.225 'Aerodrome forecasts (TAF)'.

The MET.OR text has been realigned during the CRD drafting following some reference changes during the NPA drafting of the MET.TR rules.

Please note that Appendix IV to NPA 2014-07 'MET rules of Annex IV — Subpart A of NPA 2013-08 (B)' provides for information only the related MET.OR. However, a note has been added to explicitly clarify that the MET.OR rule text is the one currently proposed in NPA 2013-08 and does not contain the possible changes stemming from the current revision under the CRD process.

comment

205

comment by: *ATC the Netherlands*

This article is linked to MET.OR.220 and subsequently the reference to "225" should be changed to "220".

response

Not accepted

GM1 MET.TR.225(g) 'Aerodrome forecasts (TAF)' is aligned with the CRD version of MET.OR.225 'Aerodrome forecasts (TAF)'.

The MET.OR text has been realigned during the CRD drafting following some reference changes during the NPA drafting of the MET.TR rules.

Please note that Appendix IV to NPA 2014-07 'MET rules of Annex IV — Subpart A of NPA 2013-08 (B)' provides for information only the related MET.OR. However, a note has been



added to explicitly clarify that the MET.OR rule text is the one currently proposed in NPA 2013-08 and does not contain the possible changes stemming from the current revision under the CRD process.

3. Proposed amendments — 3.2. Draft Acceptable Means of Compliance and Guidance Material (Draft EASA Decision), Section 2 — Specific requirements — Chapter 2 — Technical requirements for aerodrome meteorological offices — AMC1 MET.TR.230(c)(1) Aerodrome forecasts — Landing (TREND) 'THRESHOLD VALUES'

p. 49-50

comment	54	comment by: Jan Sondij
	This article is linked to MET.OR.225 and subsequently the reference to "230" should be changed to "225".	
response	<p><i>Not accepted</i></p> <p>AMC1 MET.TR.230(c)(1) 'Aerodrome forecasts — Landing (TREND)' is aligned with the CRD version of MET.OR.230 'Aerodrome forecasts — Landing (TREND)'.</p> <p>The MET.OR text has been realigned during the CRD drafting following some reference changes during the NPA drafting of the MET.TR rules.</p> <p>Please note that Appendix IV to NPA 2014-07 'MET rules of Annex IV — Subpart A of NPA 2013-08 (B)' provides for information only the related MET.OR. However, a note has been added to explicitly clarify that the MET.OR rule text is the one currently proposed in NPA 2013-08 and does not contain the possible changes stemming from the current revision under the CRD process.</p>	
comment	147	comment by: SWEDISH TRANSPORT AGENCY
	Change meteorological authority to aerodrome meteorological office and appropriate ATS authority to appropriate ATS unit.	
response	<p><i>Accepted</i></p> <p>It has been changed accordingly.</p>	
comment	206	comment by: ATC the Netherlands
	This article is linked to MET.OR.225 and subsequently the reference to "230" should be changed to "225".	
response	<p><i>Not accepted</i></p> <p>AMC1 MET.TR.230(c)(1) 'Aerodrome forecasts — Landing (TREND)' is aligned with the CRD version of MET.OR.230 'Aerodrome forecasts — Landing (TREND)'.</p> <p>The MET.OR text has been realigned during the CRD drafting following some reference</p>	



changes during the NPA drafting of the MET.TR rules.

Please note that Appendix IV to NPA 2014-07 'MET rules of Annex IV — Subpart A of NPA 2013-08 (B)' provides for information only the related MET.OR. However, a note has been added to explicitly clarify that the MET.OR rule text is the one currently proposed in NPA 2013-08 and does not contain the possible changes stemming from the current revision under the CRD process.

comment

319

comment by: ENAV

Page 49, AMC1 MET.TR.230(c)(1) - The term "Appropriate ATS authority" is used in this segment even if it's not defined, as well as the term "ATS Unit", widely used through the NPA 2014-07 (A)).

response

Accepted

'ATS authority' is changed to 'ATS units', which is the correct term to be used in the context of these rules.

comment

324

comment by: ENAC Italy

The term "Appropriate ATS authority" is used in this segment even if it's not defined as well as the term "ATS Unit", widely used through the NPA 2014-07 (A).

response

Accepted

'ATS authority' is changed to 'ATS units', which is the correct term to be used in the context of these rules.

3. Proposed amendments — 3.2. Draft Acceptable Means of Compliance and Guidance Material (Draft EASA Decision), Section 2 — Specific requirements — Chapter 2 — Technical requirements for aerodrome meteorological offices — AMC1 MET.TR.230(c)(7)(ii) Aerodrome forecasts — Landing (TREND) 'USE OF CHANGE GROUPS — BECMG'

p. 50

comment

55

comment by: Jan Sondij

This article is linked to MET.OR.225 and subsequently the reference to "230" should be changed to "225".

response

Not accepted

AMC1 MET.TR.230(c)(7)(ii) 'Aerodrome forecasts — Landing (TREND)' is aligned with the CRD version of MET.OR.230 'Aerodrome forecasts — Landing (TREND)'.

The MET.OR text has been realigned during the CRD drafting following some reference changes during the NPA drafting of the MET.TR rules.

Please note that Appendix IV to NPA 2014-07 'MET rules of Annex IV — Subpart A of NPA 2013-08 (B)' provides for information only the related MET.OR. However, a note has been



added to explicitly clarify that the MET.OR rule text is the one currently proposed in NPA 2013-08 and does not contain the possible changes stemming from the current revision under the CRD process.

comment

207

comment by: ATC the Netherlands

This article is linked to MET.OR.225 and subsequently the reference to "230" should be changed to "225".

response

Not accepted

AMC1 MET.TR.230(c)(7)(ii) 'Aerodrome forecasts — Landing (TREND)' is aligned with the CRD version of MET.OR.230 'Aerodrome forecasts — Landing (TREND)'.

The MET.OR text has been realigned during the CRD drafting following some reference changes during the NPA drafting of the MET.TR rules.

Please note that Appendix IV to NPA 2014-07 'MET rules of Annex IV — Subpart A of NPA 2013-08 (B)' provides for information only the related MET.OR. However, a note has been added to explicitly clarify that the MET.OR rule text is the one currently proposed in NPA 2013-08 and does not contain the possible changes stemming from the current revision under the CRD process.

3. Proposed amendments — 3.2. Draft Acceptable Means of Compliance and Guidance Material (Draft EASA Decision), Section 2 — Specific requirements — Chapter 2 — Technical requirements for aerodrome meteorological offices — GM1 MET.TR.230(c)(7)(ii) Aerodrome forecasts — Landing (TREND) 'USE OF CHANGE INDICATORS IN TREND FORECASTS' p. 50-51

comment

56

comment by: Jan Sondij

This article is linked to MET.OR.225 and subsequently the reference to "230" should be changed to "225".

response

Not accepted

GM1 MET.TR.230(c)(7)(ii) 'Aerodrome forecasts — Landing (TREND)' is aligned with the CRD version of MET.OR.230 'Aerodrome forecasts — Landing (TREND)'.

The MET.OR text has been realigned during the CRD drafting following some reference changes during the NPA drafting of the MET.TR rules.

Please note that Appendix IV to NPA 2014-07 'MET rules of Annex IV — Subpart A of NPA 2013-08 (B)' provides for information only the related MET.OR. However, a note has been added to explicitly clarify that the MET.OR rule text is the one currently proposed in NPA 2013-08 and does not contain the possible changes stemming from the current revision under the CRD process.



comment	208	comment by: ATC the Netherlands
	This article is linked to MET.OR.225 and subsequently the reference to "230" should be changed to "225".	
response	<p><i>Not accepted</i></p> <p>GM1 MET.TR.230(c)(7)(ii) 'Aerodrome forecasts — Landing (TREND)' is aligned with the CRD version of MET.OR.230 'Aerodrome forecasts — Landing (TREND)'.</p> <p>The MET.OR text has been realigned during the CRD drafting following some reference changes during the NPA drafting of the MET.TR rules.</p> <p>Please note that Appendix IV to NPA 2014-07 'MET rules of Annex IV — Subpart A of NPA 2013-08 (B)' provides for information only the related MET.OR. However, a note has been added to explicitly clarify that the MET.OR rule text is the one currently proposed in NPA 2013-08 and does not contain the possible changes stemming from the current revision under the CRD process.</p>	

3. Proposed amendments — 3.2. Draft Acceptable Means of Compliance and Guidance Material (Draft EASA Decision), Section 2 — Specific requirements — Chapter 2 — Technical requirements for aerodrome meteorological offices — AMC1 MET.TR.230(c)(7)(iii) Aerodrome forecasts — Landing (TREND) 'USE OF CHANGE GROUPS — TEMPO'

p. 51

comment	57	comment by: Jan Sondij
	This article is linked to MET.OR.225 and subsequently the reference to "230" should be changed to "225".	
response	<p><i>Not accepted</i></p> <p>AMC1 MET.TR.230(c)(7)(iii) 'Aerodrome forecasts — Landing (TREND)' is aligned with the CRD version of MET.OR.230 'Aerodrome forecasts — Landing (TREND)'.</p> <p>The MET.OR text has been realigned during the CRD drafting following some reference changes during the NPA drafting of the MET.TR rules.</p> <p>Please note that Appendix IV to NPA 2014-07 'MET rules of Annex IV — Subpart A of NPA 2013-08 (B)' provides for information only the related MET.OR. However, a note has been added to explicitly clarify that the MET.OR rule text is the one currently proposed in NPA 2013-08 and does not contain the possible changes stemming from the current revision under the CRD process.</p>	
comment	209	comment by: ATC the Netherlands
	This article is linked to MET.OR.225 and subsequently the reference to "230" should be changed to "225".	
response	<i>Not accepted</i>	



AMC1 MET.TR.230(c)(7)(iii) 'Aerodrome forecasts — Landing (TREND)' is aligned with the CRD version of MET.OR.230 'Aerodrome forecasts — Landing (TREND)'.

The MET.OR text has been realigned during the CRD drafting following some reference changes during the NPA drafting of the MET.TR rules.

Please note that Appendix IV to NPA 2014-07 'MET rules of Annex IV — Subpart A of NPA 2013-08 (B)' provides for information only the related MET.OR. However, a note has been added to explicitly clarify that the MET.OR rule text is the one currently proposed in NPA 2013-08 and does not contain the possible changes stemming from the current revision under the CRD process.

3. Proposed amendments — 3.2. Draft Acceptable Means of Compliance and Guidance Material (Draft EASA Decision), Section 2 — Specific requirements — Chapter 2 — Technical requirements for aerodrome meteorological offices — AMC1 MET.TR.235(a) Aerodrome forecasts — Take-off 'AMENDMENTS TO FORECASTS'

p. 51

comment

58

comment by: Jan Sondij

This article is linked to MET.OR.226 and subsequently the reference to "235" should be changed to "226".

response

Not accepted

AMC1 MET.TR.235(a) 'Aerodrome forecasts — Take-off' is aligned with the CRD version of MET.OR.235 'Aerodrome forecasts — Take-off'.

The MET.OR text has been realigned during the CRD drafting following some reference changes during the NPA drafting of the MET.TR rules.

Please note that Appendix IV to NPA 2014-07 'MET rules of Annex IV — Subpart A of NPA 2013-08 (B)' provides for information only the related MET.OR. However, a note has been added to explicitly clarify that the MET.OR rule text is the one currently proposed in NPA 2013-08 and does not contain the possible changes stemming from the current revision under the CRD process.

comment

210

comment by: ATC the Netherlands

This article is linked to MET.OR.226 and subsequently the reference to "235" should be changed to "226".

response

Not accepted

AMC1 MET.TR.235(a) 'Aerodrome forecasts - Take-off' is aligned with the CRD version of MET.OR.235 'Aerodrome forecasts - Take-off'.

The MET.OR text has been realigned during the CRD drafting following some reference changes during the NPA drafting of the MET.TR rules.



Please note that Appendix IV to NPA 2014-07 'MET rules of Annex IV — Subpart A of NPA 2013-08 (B)' provides for information only the related MET.OR. However, a note has been added to explicitly clarify that the MET.OR rule text is the one currently proposed in NPA 2013-08 and does not contain the possible changes stemming from the current revision under the CRD process.

3. Proposed amendments — 3.2. Draft Acceptable Means of Compliance and Guidance Material (Draft EASA Decision), Section 2 — Specific requirements — Chapter 2 — Technical requirements p. 51-52 for aerodrome meteorological offices — AMC1 MET.TR.215 Area forecasts for low-level flights

comment	59	comment by: Jan Sondij		
	This article is linked to MET.OR.230 and subsequently the reference to "215" should be changed to "230".			
response	<p><i>Not accepted</i></p> <p>AMC1 MET.TR.215 'Area forecasts for low-level flights' is aligned with the CRD version of MET.OR.215 'Area forecasts for low-level flights'.</p> <p>The MET.OR text has been realigned during the CRD drafting following some reference changes during the NPA drafting of the MET.TR rules.</p> <p>Please note that Appendix IV to NPA 2014-07 ‘MET rules of Annex IV — Subpart A of NPA 2013-08 (B)’ provides for information only the related MET.OR. However, a note has been added to explicitly clarify that the MET.OR rule text is the one currently proposed in NPA 2013-08 and does not contain the possible changes stemming from the current revision under the CRD process.</p>			
comment	132	comment by: Belgocontrol		
	<table><tr><td>AMC1 MET.TR.215</td><td>This TR is transposed from Part 1 of ICAO Annex 3 - §xxx; Unfortunately no traceability for this has been made available in NPA (B) or in a separate NPA (C) or updated 2013-08 NPA (e)</td></tr></table>		AMC1 MET.TR.215	This TR is transposed from Part 1 of ICAO Annex 3 - §xxx; Unfortunately no traceability for this has been made available in NPA (B) or in a separate NPA (C) or updated 2013-08 NPA (e)
AMC1 MET.TR.215	This TR is transposed from Part 1 of ICAO Annex 3 - §xxx; Unfortunately no traceability for this has been made available in NPA (B) or in a separate NPA (C) or updated 2013-08 NPA (e)			
response	<p><i>Noted</i></p> <p>This statement is correct, the traceability for the chapters of Part I that were identified to be transposed during the MET.TR phase is missing because the drafting document only contains the Appendices to Part II of ICAO Annex 3 and not Part I. This is due to the fact that the drafting documents for both MET.OR and MET.TR contain only their respective parts. A</p>			



consolidated drafting document covering the entire ICAO Annex 3 will be provided at a later stage, for traceability purposes only.

comment	256	comment by: <i>MeteoSwiss</i>
	Editorial note: AMC1 MET.TR.215 and GM1 MET.TR.215 is listed between AMC1 MET.TR.235(a) and AMC1 MET.TR.240(a) and therefore in the wrong place concerning the sequence.	
response	<i>Accepted</i> Corrected and moved to chapter 1.	

comment	290	comment by: <i>LEGMC</i>
	(c)	
	Weather situation should be depicted for fixed valid time as it is fixed time chart.	
response	<i>Not accepted</i> The Agency is following the EUR ANP which states that (24): '24. When low-level forecast is issued as a SIGWX chart or as a wind and temperature (W+T) chart, it should, as appropriate, include the information as described in paragraph 19. The graphical part of a SIGWX chart should depict the weather situation at the beginning of validity period. Significant changes of initial weather parameters should be depicted together with time intervals determining duration of expected changes.'	

3. Proposed amendments — 3.2. Draft Acceptable Means of Compliance and Guidance Material (Draft EASA Decision), Section 2 — Specific requirements — Chapter 2 — Technical requirements for aerodrome meteorological offices — GM1 MET.TR.215 Area forecasts for low-level flights 'CONTENT OF AREA FORECASTS FOR LOW-LEVEL FLIGHTS'

p. 52

comment	60	comment by: <i>Jan Sondij</i>
	This article is linked to MET.OR.230 and subsequently the reference to "215" should be changed to "230".	
response	<i>Not accepted</i> GM1 MET.TR.215 'Area forecasts for low-level flights' is aligned with the CRD version of MET.OR.215 'Area forecasts for low-level flights'. The MET.OR text has been realigned during the CRD drafting following some reference	



changes during the NPA drafting of the MET.TR rules.

Please note that Appendix IV to NPA 2014-07 'MET rules of Annex IV — Subpart A of NPA 2013-08 (B)' provides for information only the related MET.OR. However, a note has been added to explicitly clarify that the MET.OR rule text is the one currently proposed in NPA 2013-08 and does not contain the possible changes stemming from the current revision under the CRD process.

comment

211

comment by: ATC the Netherlands

This article is linked to MET.OR.230 and subsequently the reference to "215" should be changed to "230".

response

Not accepted

GM1 MET.TR.215(a) 'Area forecasts for low-level flights' is aligned with the CRD version of MET.OR.215 'Area forecasts for low-level flights'.

The MET.OR text has been realigned during the CRD drafting following some reference changes during the NPA drafting of the MET.TR rules.

Please note that Appendix IV to NPA 2014-07 'MET rules of Annex IV — Subpart A of NPA 2013-08 (B)' provides for information only the related MET.OR. However, a note has been added to explicitly clarify that the MET.OR rule text is the one currently proposed in NPA 2013-08 and does not contain the possible changes stemming from the current revision under the CRD process.

3. Proposed amendments — 3.2. Draft Acceptable Means of Compliance and Guidance Material (Draft EASA Decision), Section 2 — Specific requirements — Chapter 2 — Technical requirements for aerodrome meteorological offices — AMC1 MET.TR.240(a) Aerodrome warnings and wind shear warnings and alerts 'FORMAT OF AERODROME WARNINGS'

p. 52

comment

61

comment by: Jan Sondij

This article is linked to MET.OR.235 and subsequently the reference to "240" should be changed to "235".

response

Not accepted

AMC1 MET.TR.240(a) 'Aerodrome warnings and wind shear warnings and alerts' is aligned with the CRD version of MET.OR.240 'Aerodrome warnings and wind shear warnings and alerts'.

The MET.OR text has been realigned during the CRD drafting following some reference changes during the NPA drafting of the MET.TR rules.

Please note that Appendix IV to NPA 2014-07 'MET rules of Annex IV — Subpart A of NPA 2013-08 (B)' provides for information only the related MET.OR. However, a note has been added to explicitly clarify that the MET.OR rule text is the one currently proposed in NPA



2013-08 and does not contain the possible changes stemming from the current revision under the CRD process.

3. Proposed amendments — 3.2. Draft Acceptable Means of Compliance and Guidance Material (Draft EASA Decision), Section 2 — Specific requirements — Chapter 2 — Technical requirements for aerodrome meteorological offices — AMC2 MET.TR.240(a) Aerodrome warnings and wind shear warnings and alerts 'SUPPLEMENTARY INFORMATION'

p. 52

comment

62

comment by: Jan Sondij

This article is linked to MET.OR.235 and subsequently the reference to "240" should be changed to "235".

response

Not accepted

AMC2 MET.TR.240(a) 'Aerodrome warnings and wind shear warnings and alerts' is aligned with the CRD version of MET.OR.240 'Aerodrome warnings and wind shear warnings and alerts'.

The MET.OR text has been realigned during the CRD drafting following some reference changes during the NPA drafting of the MET.TR rules.

Please note that Appendix IV to NPA 2014-07 'MET rules of Annex IV — Subpart A of NPA 2013-08 (B)' provides for information only the related MET.OR. However, a note has been added to explicitly clarify that the MET.OR rule text is the one currently proposed in NPA 2013-08 and does not contain the possible changes stemming from the current revision under the CRD process.

comment

213

comment by: ATC the Netherlands

This article is linked to MET.OR.235 and subsequently the reference to "240" should be changed to "235".

response

Not accepted

AMC2 MET.TR.240(a) 'Aerodrome warnings and wind shear warnings and alerts' is aligned with the CRD version of MET.OR.240 'Aerodrome warnings and wind shear warnings and alerts'.

The MET.OR text has been realigned during the CRD drafting following some reference changes during the NPA drafting of the MET.TR rules.

Please note that Appendix IV to NPA 2014-07 'MET rules of Annex IV — Subpart A of NPA 2013-08 (B)' provides for information only the related MET.OR. However, a note has been added to explicitly clarify that the MET.OR rule text is the one currently proposed in NPA 2013-08 and does not contain the possible changes stemming from the current revision under the CRD process.



3. Proposed amendments — 3.2. Draft Acceptable Means of Compliance and Guidance Material (Draft EASA Decision), Section 2 — Specific requirements — Chapter 2 — Technical requirements for aerodrome meteorological offices — AMC1 MET.TR.240(c) Aerodrome warnings and wind shear warnings and alerts 'FORMAT OF WIND SHEAR WARNINGS'

p. 52

comment	63	comment by: Jan Sondij
	This article is linked to MET.OR.235 and subsequently the reference to "240" should be changed to "235".	
response	<p><i>Not accepted</i></p> <p>AMC1 MET.TR.240(c) 'Aerodrome warnings and wind shear warnings and alerts' is aligned with the CRD version of MET.OR.240 'Aerodrome warnings and wind shear warnings and alerts'.</p> <p>The MET.OR text has been realigned during the CRD drafting following some reference changes during the NPA drafting of the MET.TR rules.</p> <p>Please note that Appendix IV to NPA 2014-07 'MET rules of Annex IV — Subpart A of NPA 2013-08 (B)' provides for information only the related MET.OR. However, a note has been added to explicitly clarify that the MET.OR rule text is the one currently proposed in NPA 2013-08 and does not contain the possible changes stemming from the current revision under the CRD process.</p>	
comment	212	comment by: ATC the Netherlands
	This article is linked to MET.OR.235 and subsequently the reference to "240" should be changed to "235".	
response	<p><i>Not accepted</i></p> <p>AMC1 MET.TR.240(c) 'Aerodrome warnings and wind shear warnings and alerts' is aligned with the CRD version of MET.OR.240 'Aerodrome warnings and wind shear warnings and alerts'.</p> <p>The MET.OR text has been realigned during the CRD drafting following some reference changes during the NPA drafting of the MET.TR rules.</p> <p>Please note that Appendix IV to NPA 2014-07 'MET rules of Annex IV — Subpart A of NPA 2013-08 (B)' provides for information only the related MET.OR. However, a note has been added to explicitly clarify that the MET.OR rule text is the one currently proposed in NPA 2013-08 and does not contain the possible changes stemming from the current revision under the CRD process.</p>	
comment	214	comment by: ATC the Netherlands
	This article is linked to MET.OR.235 and subsequently the reference to "240" should be changed to "235".	



response *Not accepted*

AMC1 MET.TR.240(c) 'Aerodrome warnings and wind shear warnings and alerts' is aligned with the CRD version of MET.OR.240 'Aerodrome warnings and wind shear warnings and alerts'.

The MET.OR text has been realigned during the CRD drafting following some reference changes during the NPA drafting of the MET.TR rules.

Please note that Appendix IV to NPA 2014-07 'MET rules of Annex IV — Subpart A of NPA 2013-08 (B)' provides for information only the related MET.OR. However, a note has been added to explicitly clarify that the MET.OR rule text is the one currently proposed in NPA 2013-08 and does not contain the possible changes stemming from the current revision under the CRD process.

3. Proposed amendments — 3.2. Draft Acceptable Means of Compliance and Guidance Material (Draft EASA Decision), Section 2 — Specific requirements — Chapter 2 — Technical requirements for aerodrome meteorological offices — GM1 MET.TR.240(c) Aerodrome warnings and wind shear warnings and alerts 'WIND SHEAR TYPES'

p. 52

comment 64

comment by: Jan Sondij

This article is linked to MET.OR.235 and subsequently the reference to "240" should be changed to "235".

response *Not accepted*

GM1 MET.TR.240(c) 'Aerodrome warnings and wind shear warnings and alerts' is aligned with the CRD version of MET.OR.240 'Aerodrome warnings and wind shear warnings and alerts'.

The MET.OR text has been realigned during the CRD drafting following some reference changes during the NPA drafting of the MET.TR rules.

Please note that Appendix IV to NPA 2014-07 'MET rules of Annex IV — Subpart A of NPA 2013-08 (B)' provides for information only the related MET.OR. However, a note has been added to explicitly clarify that the MET.OR rule text is the one currently proposed in NPA 2013-08 and does not contain the possible changes stemming from the current revision under the CRD process.

comment 215

comment by: ATC the Netherlands

This article is linked to MET.OR.235 and subsequently the reference to "240" should be changed to "235".

response *Not accepted*

GM1 MET.TR.240(c) 'Aerodrome warnings and wind shear warnings and alerts' is aligned with the CRD version of MET.OR.240 'Aerodrome warnings and wind shear warnings and



alerts'.

The MET.OR text has been realigned during the CRD drafting following some reference changes during the NPA drafting of the MET.TR rules.

Please note that Appendix IV to NPA 2014-07 'MET rules of Annex IV — Subpart A of NPA 2013-08 (B)' provides for information only the related MET.OR. However, a note has been added to explicitly clarify that the MET.OR rule text is the one currently proposed in NPA 2013-08 and does not contain the possible changes stemming from the current revision under the CRD process.

3. Proposed amendments — 3.2. Draft Acceptable Means of Compliance and Guidance Material (Draft EASA Decision), Section 2 — Specific requirements — Chapter 2 — Technical requirements for aerodrome meteorological offices — GM2 MET.TR.240(c) Aerodrome warnings and wind shear warnings and alerts 'REPORTING THE INTENSITY OF WIND SHEAR'

p. 52

comment

65

comment by: Jan Sondij

This article is linked to MET.OR.235 and subsequently the reference to "240" should be changed to "235".

response

Not accepted

GM2 MET.TR.240(c) 'Aerodrome warnings and wind shear warnings and alerts' is aligned with the CRD version of MET.OR.240 'Aerodrome warnings and wind shear warnings and alerts'.

The MET.OR text has been realigned during the CRD drafting following some reference changes during the NPA drafting of the MET.TR rules.

Please note that Appendix IV to NPA 2014-07 'MET rules of Annex IV — Subpart A of NPA 2013-08 (B)' provides for information only the related MET.OR. However, a note has been added to explicitly clarify that the MET.OR rule text is the one currently proposed in NPA 2013-08 and does not contain the possible changes stemming from the current revision under the CRD process.

comment

216

comment by: ATC the Netherlands

This article is linked to MET.OR.235 and subsequently the reference to "240" should be changed to "235".

response

Not accepted

GM2 MET.TR.240(c) 'Aerodrome warnings and wind shear warnings and alerts' is aligned with the CRD version of MET.OR.240 'Aerodrome warnings and wind shear warnings and alerts'.

The MET.OR text has been realigned during the CRD drafting following some reference



changes during the NPA drafting of the MET.TR rules.

Please note that Appendix IV to NPA 2014-07 'MET rules of Annex IV — Subpart A of NPA 2013-08 (B)' provides for information only the related MET.OR. However, a note has been added to explicitly clarify that the MET.OR rule text is the one currently proposed in NPA 2013-08 and does not contain the possible changes stemming from the current revision under the CRD process.

3. Proposed amendments — 3.2. Draft Acceptable Means of Compliance and Guidance Material (Draft EASA Decision), Section 2 — Specific requirements — Chapter 2 — Technical requirements for aerodrome meteorological offices — GM1 MET.TR.240(e) Aerodrome warnings and wind shear warnings and alerts 'DETECTION OF WIND SHEAR'

p. 53

comment	5	comment by: Jan Sondij
	Wind shear conditions are normally associated with the following phenomena. Comment: Please define what is meant by the phrase "normally".	
response	Not accepted	
	Said sentence has been transposed literally from ICAO Annex 3. Please see ICAO circular on wind shear.	
comment	66	comment by: Jan Sondij
	This article is linked to MET.OR.235 and subsequently the reference to "240" should be changed to "235".	
response	Not accepted	
	GM1 MET.TR.240(e) 'Aerodrome warnings and wind shear warnings and alerts' is aligned with the CRD version of MET.OR.240 'Aerodrome warnings and wind shear warnings and alerts'.	
	The MET.OR text has been realigned during the CRD drafting following some reference changes during the NPA drafting of the MET.TR rules.	
	Please note that Appendix IV to NPA 2014-07 'MET rules of Annex IV — Subpart A of NPA 2013-08 (B)' provides for information only the related MET.OR. However, a note has been added to explicitly clarify that the MET.OR rule text is the one currently proposed in NPA 2013-08 and does not contain the possible changes stemming from the current revision under the CRD process.	
comment	217	comment by: ATC the Netherlands
	Wind shear conditions are normally associated with the following phenomena. Comment: Please define what is meant by the term "normally".	



This article is linked to MET.OR.235 and subsequently the reference to "240" should be changed to "235".

response *Not accepted*

GM1 MET.TR.240(e) 'Aerodrome warnings and wind shear warnings and alerts' is aligned with the CRD version of MET.OR.240 'Aerodrome warnings and wind shear warnings and alerts'.

The MET.OR text has been realigned during the CRD drafting following some reference changes during the NPA drafting of the MET.TR rules.

Please note that Appendix IV to NPA 2014-07 'MET rules of Annex IV — Subpart A of NPA 2013-08 (B)' provides for information only the related MET.OR. However, a note has been added to explicitly clarify that the MET.OR rule text is the one currently proposed in NPA 2013-08 and does not contain the possible changes stemming from the current revision under the CRD process.

3. Proposed amendments — 3.2. Draft Acceptable Means of Compliance and Guidance Material (Draft EASA Decision), Section 2 — Specific requirements — Chapter 3 — Technical requirements for meteorological stations — AMC1 MET.TR.250(a)(12) Meteorological reports and other information 'SUPPLEMENTARY INFORMATION — WEATHER PHENOMENA TO BE REPORTED BY A SEMI- AUTOMATIC OBSERVING SYSTEM'

p. 53

comment 3

comment by: *Jan Sondij*

Definition of "freezing precipitation" is missing in list of definitions. Proposal to include the definition of "freezing precipitation".

response *Not accepted*

Not accepted. The Agency does not intend to define all the weather phenomena, for instance: snow, drizzle, rain, etc. which are considered to be obvious.

comment 106

comment by: *Finnish Meteorological Institute*

AMC1 MET.TR.250 (a)(12)

Move here AMC2 MET.TR.250 (a)(12) parts b and c, because they relate to **semi-automatic** observations, not automatic.

response *Accepted*



Accepted. (b) and (c) of AMC2 MET.TR.250(a)(12) is moved to AMC1 MET.TR.250(a)(12)

comment

218

comment by: ATC the Netherlands

Definition of "freezing precipitation" is missing in list of definitions. Proposal to include the definition of "freezing precipitation".

response

Not accepted

Not accepted. The Agency does not intend to define all the weather phenomena, for instance: snow, drizzle, rain, etc. which are considered to be obvious.

3. Proposed amendments — 3.2. Draft Acceptable Means of Compliance and Guidance Material (Draft EASA Decision), Section 2 — Specific requirements — Chapter 3 — Technical requirements for meteorological stations — AMC2 MET.TR.250(a)(12) Meteorological reports and other information 'SUPPLEMENTARY INFORMATION — WEATHER PHENOMENA TO BE REPORTED BY AN AUTOMATIC OBSERVING SYSTEM' p. 53-54

comment

8

comment by: Jan Sondij

Typo in header: OBSERVING instead of OBSERVING.

response

Accepted

'OBSERVING' has been changed to 'OBSERVING'.

comment

107

comment by: Finnish Meteorological Institute

AMC2 MET.TR.250 (a)(12)

Move parts b and c to AMC1 MET.TR.250 (a)(12), because they relate to **semi-automatic** observations, not automatic.

Part b should also be left to AMC2 MET.TR.250 (a)(12) with small changes so that if automated system is able to observe weather phenomena from this list, it would be allowed to report them.

Suggested

text:

In local routine and special reports when reported by an automatic observation system, the following significant meteorological conditions, or combinations thereof **can** be reported in the supplementary information:

response

Partially accepted



Accepted. (b) of AMC2 MET.TR.250(a)(12) is moved to AMC1 MET.TR.250(a)(12)

Not accepted as part (b) is related to semi-automatic observing system whereas AMC2 is related to automatic observing system.

comment 133

comment by: *Belgocontrol*

AMC2 MET.TR.250
(a) (12) (b)

Part b seems to be in the wrong AMC: b) is linked to semi-auto observations and should thus be part of AMC1 rather than AMC2

response *Accepted*

Correct and moved to AMC1 MET.TR.250(a)(12).

comment 148

comment by: *SWEDISH TRANSPORT AGENCY*

According to the headline it is applicable to automatic observing system however in (b) semi-automatic observing system is mentioned.

response *Accepted*

Accepted. (b) of AMC2 MET.TR.250(a)(12) is moved to AMC1 MET.TR.250(a)(12)

comment 219

comment by: *ATC the Netherlands*

Typo in header: OBVSERVING instead of OBSERVING.

response *Accepted*

'OBVSERVING' has been changed to 'OBSERVING'.

3. Proposed amendments — 3.2. Draft Acceptable Means of Compliance and Guidance Material (Draft EASA Decision), Section 2 — Specific requirements — Chapter 3 — Technical requirements for meteorological stations — AMC4 MET.TR.250(a)(12) Meteorological reports and other information 'SUPPLEMENTARY INFORMATION — METAR'

p. 54



comment	108	comment by: <i>Finnish Meteorological Institute</i>
	<p>AMC4 MET.TR.250 (a)(12)(b)</p> <p>In ICAO Europe's METG23 WP18 (September 2013) it is stated, that "from statements in the State AIP's it follows that the States in the EUR region has chosen to use the ICAO SNOWTAM format for reporting of runway state conditions.</p> <p>FMI suggests that the AMC is corrected to reflect this statement and that SNOWTAM is the preferred format.</p>	
response	<p><i>Not accepted</i></p> <p>The Agency understands that this position is stemming from a working paper discussed at METG but that no firm conclusion on this paper was made at EANPG level. Therefore, the Agency proposes to transpose the existing ICAO recommendation 4.8.1.5 of Appendix 3, Annex 3.</p>	
comment	307	comment by: <i>Air transport directorate</i>
	<p>Providing the state of the runway in METAR will necessitate that aerodrome operators implement specific interfaces to report this information to the Meteorological systems that automatically build the messages. The information on the state of the runway is most likely to be assessed during runway inspections which are undertaken twice a day. However, METAR are updated every 30 minutes. Aerodrome operators will not be able to undertake runway inspections every 30 minutes in order to provide an up to date state of the runway in the last METAR. It would be relevant to add flexibility to AMC4 MET.TR.250(a)(12)-b by specifying "<i>when this is feasible and when the information is available</i>".</p>	
response	<p><i>Not accepted</i></p> <p>The Agency does not agree with this comment. The responsibility is on the aerodrome operator to determine the frequency of inspection and to arrange for the appropriate interface with the relevant stakeholders.</p>	
comment	403	comment by: <i>DGAC France</i>
	<p>Attachment #2</p> <p>Comment provided by French DSAC (with the support of Service Technique de l'Aviation Civile)</p> <p>Comment concerning the following AMC</p> <p>AMC4 MET.TR.250(a)(12) Meteorological reports and other information</p> <p>In METAR the following information should be included in the supplementary information:</p> <p>(a) information on sea-surface temperature and the state of the sea or the significant wave</p>	



height from aeronautical meteorological stations established on offshore structures in support of helicopter operations; and

(b) information on the state of the runway provided by the appropriate airport authority.

In Europe, this ICAO provision is implemented by a few aerodromes only, with obsolete formats sometimes. See in appendix the inquiry carried out by ICAO on the global level of implementation

The Aerodrome and Flight OPS Panels have recommended that the runway state group of the METAR/SPECI be removed during their respective meeting in April and June 2014 because it is not considered compatible with the new global reporting format derived from the TALPA/ARC (FAA) recommendation.

In addition the runway state group of the METAR/SPECI includes friction coefficient which have been removed from the provisions of Annexes 14 and 15 by their respective amendments 11-A and 37 because ICAO considered its inclusion damageable to the safety of aircraft operations.

Finally, the term “appropriate airport authority” is not defined, ambiguous and inappropriate as it could address the aerodrome operator, the ANSP, the MET service or any other authority.

Conclusion : it is therefore proposed to delete **AMC4 MET.TR.250(a)(12)-b**. If it were deemed necessary to allow European aerodromes to continue applying this provision, it could be kept, in which case it would be relevant to add flexibility to **AMC4 MET.TR.250(a)(12)-b** by adding “*when this the information is available and can be reported*”.

Appendix

Aerodromes using the runway state group in METAR between 12 March and 23 April 2013

***Aerodrome either routinely or occasionally uses the obsolete format of the code for reporting the runway state within METAR.**

Belgium

Antwerp

Brussels National

Brussels – Charleroi

Liege

Ostend

Germany

Heringsdorf

Berlin – Schoenefeld

Dresden

Erfurt-Weimer

Frankfurt-Main

Hamburg

Koeln/Bonn

Duesseldorf

Muenchen

Nuernberg

Leipzig/Halle

Saarbruecken

Stuttgart

Berlin – Tegel

Bremen

Moenchengladbach



Fritzlar
Niederstetten
Laage
Wunstorf
Buechel
Estonia
Kuressaare
Lennart Meri Tallinn
Finland
Kemi – Tornio
Kokkola – Pietarsaari
Pori
Turku
Vaasa
Ivalo*
Kuusamo*
Kittila*
Oulu*
Seinajoki*
United Kingdom
Belfast/Aldergrove
Birmingham
Coventry
Doncaster Sheffield
Liverpool
London Luton
Alderney
Jersey
Biggin Hill
Southend
Manston
Blackpool
Leeds Bradford
Newcastle
East Midlands
Kirkwall
Sumburgh
Wick
Aberdeen/Dyce
Glasgow
Edinburgh
Dundee
Cambridge
Norwich
Netherlands
Amsterdam/Schiphol
Maastricht Aachen
Groningen/Eelde
Ireland
Dublin*



Denmark

Aarhus
Kobenhavn/Kastrup
Esbjerg
Odense
Kobenhavn/Roskilde
Bornholm/Ronne
Sonderborg
Kolding/Vamdrup
Aalborg (Civ/Mil)
Billund*
Karup (Mil)*
Vojens/Skrydstrup (Mil)*
Stauning*

Poland

Bydgoszcz/Szwederowo
Gdansk im Lecha Walesy
Krakow/Balice
Lodz/Lublinek
Warszawa/Modlin
Poznan/Lawica
Rzeszow/Jasionka
Szczecin/Goleniow
Chopina W Warszawie
Wroclaw/Strachowice

Sweden

Goteborg/Landvetter
Jonkoping
Stockholm/Skavsta
Malmo
Sundsvall – Harnosand
Umea
Stockholm/Vasteras
Stockholm/Bromma
Norrkoping/Kungsangen
Visby

Latvia

Riga

Lithuania

Kaunas Intl
Palanga Intl
Siauliai Intl
Vilnius Intl

Bulgaria

Burgas
Gorna Oryahovitsa
Plovdiv
Sofia
Varna

Croatia

Osijek/Klisa

Zagreb/Pleso

Spain

Madrid/Barajas

Pamplona

Vitoria

France

Clermont – Ferrand – Auvergne

Paris – Charles de Gaulle

Toussus – le – Noble

Paris – Orly

Lille – Lesquin

Brest – Bretagne

Hungary

Budapest Liszt Ferenc

Italy

Alghero/Fertilia

Milano/Malpensa

Torino/Caselle

Milano/Linate

Parma

Cuneo/Levaldigi

Bologna/Borgo Panigale

Roma/Fiumicino

Napoli/Capodichino

Slovenia

Cerklje

Ljubljana/Brnik

Maribor/Orehova Vas

Czech Republic

Korlovy Vary

Ostrava/Mosnov

Praha/Ruzyne

Brno/Turany

Austria

Graz

Innsbruck

Klagenfurt

Linz

Salzburg

Wien – Schwechat

Romania

Arad*

Baia Mare*

Bucaresti/Baneas*

Sibiu*

Satu Mare*

Suceava/Stefan Cel*

Bacau*

Constanta*



Cluj Napoca*
Craiova*
Iasi*
Oradea*
Bucuresti/Henri Coanda*
Tulcea/Delta Dunarii*
Targu Mures/Transilvania*
Timisoara/Traian*

Switzerland

Geneva
Bern – Belp
Grenchen
Zurich
St Gallen – Altenrhein
Samedan

Turkey

Erzurum
Kars

Republic of Moldova

Balti
Marculesti*
Chisinau

Serbia

Beograd/Nikola Tesla
Beograd/Batajnica
Kraljevo/Ladjevci
Nis/Konstantin Veliki
Uzice/Ponikve
Vrsac

Slovakia

Bratislava/M.R. Stefanik

Kazakhstan

Kokshetau
Petropalosvk
Taraz*
Shymkent
Ust – Kamenogorsk
Pavlodar*

Belarus

Brest
Homiel
Viciebsk
Hrodna
Minsk
Mahiliou

Russian Federation

Kaliningrad/Khrabrovo
Yakutsk*
Chulman*
Poliarny*



Mirny*
Tiksi*
Blagoveshchensk/Ignatyev*
Khabarovsk/Novy*
Anadyr/Ugolny*
Magadan/Sokol*
Yuzhno – Sakhalinsk*
Vladivostok/Knevichi*
Chita/Kadala*
Bratsk*
Irkutsk*
Ulan – Ude/Mukhino*
Kotlas*
Sankt – Peterburg/Pulkovo*
Murmansk*
Pskov*
Petrozavodsk/Besovets*
Vologda*
Barnaul*
Kemerovo*
Novosibirsk/Tolmachevo*
Omsk/Tsentralny*
Khatanga*
Norilsk/Alykel*
Rostov – Na – Donu*
Chelyabinsk/Balandino*
Magnitogorsk*
Nadym*
Nizhnevartovsk*
Perm/Bolshoe Savino*
Yekaterinburg/Koltsovo*
Tyumen/Roshchino*
Ivanovo/Yuzhny*
Bryansk*
Moscow/Domodovo*
Yaroslavl/Tunoshna*
Moscow/Sheremetyevo*
Ostafyevo*
Belgorod*
Kursk/Vostochny*
Voronezh/Chertovitskoye*
Moscow/Vnukovo*
Vorkuta*
Syktyvkar*
Nizhny Novgorod/Strigino*
Begishevo*
Cheboksary*
Ulyanovsk/Baratayevka*
Ulyanovsk/Vostochny*
Orenburg*



Orsk*
 Penza*
 Saratov/Tsentrally*
 Ufa*
 Samara/Kurumoch*
Uzbekistan
 Andizhan
 Fergana
 Namangan
 Nukus
 Navoi
 Bukhara
 Karshi
 Samarkand
 Termez
 Tashkent – Uzhny
Luxembourg
 Luxembourg*
Norway
 Berlevag*
 Orland*

response

Partially accepted

Partially accepted and changed. The Agency proposes to include the intervention of the competent authority: 'In METAR, the following information should be included in the supplementary information, **as determined by the competent authority.**'

3. Proposed amendments — 3.2. Draft Acceptable Means of Compliance and Guidance Material (Draft EASA Decision), Section 2 — Specific requirements — Chapter 3 — Technical requirements for meteorological stations — AMC1 MET.TR.250(c)(2) Meteorological reports and other information

p. 56

comment

299

comment by: *European Transport Workers Federation - ETF*

a) The “enabling clause” chosen by ICAO (“States in a position to do so”) had been chosen carefully to allow gradual development without forcing Contracting States’ compliance at this early stage. We encourage EASA to be careful and not diverge from ICAO on this topic.
 b) The statement “xml is not used in Met. Reports”) is not formally correct: According to WMO, GML is considered a “dialect” or “variant” of XML, so that whenever GML is used, it is seen as a form of XML. ETF thinks that XML/GML should be kept.

response

Partially accepted

a) The comment is noted. The clause ‘States in a position to do so’ is now reflected in the rules in the form of AMC so as to avoid forcing Member States to have to comply at this stage.

b) Not accepted. GML is the agreed standard for digital exchange of METAR, SPECI, TAF and SIGMET and referenced in the regulation without indicating the markup language, XML. A



specific guidance material is added to the revised text to explain why only GML is used in MET rules.

3. Proposed amendments — 3.2. Draft Acceptable Means of Compliance and Guidance Material (Draft EASA Decision), Section 2 — Specific requirements — Chapter 3 — Technical requirements for meteorological stations — GM1 MET.TR.250(d)(5) Meteorological reports and other information 'NOISE ABATEMENT' p. 56

comment 87 comment by: Jan Sondij

Reference is made to PANS ATM Doc 444 para 7.2.7. This para seems not to be available in current doc 4444, and may be a proposed alteration to doc 4444. Perhaps reference should be para 7.2.6, as is used in GM1 MET.TR.252(a)(3)(iii).

response Accepted

The reference has been changed to 7.2.6.

comment 220 comment by: ATC the Netherlands

Reference is made to PANS ATM Doc 444 para 7.2.7. This paragraph seems not to be available in current doc 4444, and may be a proposed alteration to doc 4444. Perhaps reference should be paragraph 7.2.6, as is used in GM1 MET.TR.252(a)(3)(iii).

response Accepted

The reference has been changed to 7.2.6.

3. Proposed amendments — 3.2. Draft Acceptable Means of Compliance and Guidance Material (Draft EASA Decision), Section 2 — Specific requirements — Chapter 3 — Technical requirements for meteorological stations — AMC1 MET.TR.252(c)(3) Reporting of meteorological elements 'RVR — VALUES' p. 58

comment 150 comment by: Jan Sondij

The little b, c and d refer to little a. The current wording is not logic and it is also not clear that b.c and d refer to METAR only. Consider to add little b to a, as this is a clause describing the condition when c and d should be used. And place c and d under a/b using notation 1 and 2.

response Accepted



It has been corrected and changed accordingly.

3. Proposed amendments — 3.2. Draft Acceptable Means of Compliance and Guidance Material (Draft EASA Decision), Section 2 — Specific requirements — Chapter 3 — Technical requirements for meteorological stations — AMC1 MET.TR.252(d)(1) Reporting of meteorological elements 'REPORT BY AUTOMATIC AND SEMI-AUTOMATIC OBSERVING SYSTEM' p. 58-60

comment	387	comment by: <i>Météo-France</i>
	(b) (2) (i) explain "(to be changed)"	
response	<p><i>Noted</i></p> <p>This is an editorial error. '(to be changed)' was an internal note which was not deleted.</p>	

3. Proposed amendments — 3.2. Draft Acceptable Means of Compliance and Guidance Material (Draft EASA Decision), Section 2 — Specific requirements — Chapter 3 — Technical requirements for meteorological stations — AMC2 MET.TR.252(d)(1) Reporting of meteorological elements 'TYPES OF PRESENT WEATHER PHENOMENA FOR AUTOMATED REPORTS' p. 60

comment	388	comment by: <i>Météo-France</i>
	(b) (3) explain "to be changed" in "The following should be used only when the obscuration consists predominantly of lithometeors and the visibility is 5000 m or less, except 'SA' when qualified by 'DR' to be changed and volcanic ash :	
response	<p><i>Noted</i></p> <p>The Agency assumes that this comment is made on (b)(3) in AMC1 MET.TR.252(d)(1) and not on AMC2. This is an editorial error.</p>	

3. Proposed amendments — 3.2. Draft Acceptable Means of Compliance and Guidance Material (Draft EASA Decision), Section 2 — Specific requirements — Chapter 3 — Technical requirements for meteorological stations — AMC2 MET.TR.252(d)(3) Reporting of meteorological elements 'PRESENT WEATHER PHENOMENA — INTENSITY' p. 61

comment	109	comment by: <i>Finnish Meteorological Institute</i>
	<p>AMC2 MET.TR.252 (d)(3)</p> <ul style="list-style-type: none"> • METAR needs to be added to the list of concerning reports • (local routine and special reports) text is not needed at all before the intensity indicators • differs from Annex 3: Intensity is only used with certain phenomena, reference with 	



	tables 4 and 5		
response	<p><i>Partially accepted</i></p> <ul style="list-style-type: none"> — Accepted and METAR is now included. — Not accepted. — The Agency is not sure about the objective of this comment as this AMC transposes Recommendation 4.4.2.7 of Appendix 3, Annex 3. 		
comment	<p>134 comment by: <i>Belgocontrol</i></p> <table border="1"> <tr> <td>AMC2 MET.TR.252 (d) (3)</td><td> <p>"and in METAR" should be added: "-" for light, " " for moderate and "+" for heavy are only applicable to METAR VC is only applicable to METAR</p> </td></tr> </table>	AMC2 MET.TR.252 (d) (3)	<p>"and in METAR" should be added: "-" for light, " " for moderate and "+" for heavy are only applicable to METAR VC is only applicable to METAR</p>
AMC2 MET.TR.252 (d) (3)	<p>"and in METAR" should be added: "-" for light, " " for moderate and "+" for heavy are only applicable to METAR VC is only applicable to METAR</p>		
response	<p><i>Accepted</i></p> <p>It has been changed in the revised text.</p>		
comment	<p>149 comment by: <i>SWEDISH TRANSPORT AGENCY</i></p> <p>The proximity to the aerodrome is not relevant for local routine and special reports. METAR shall be included in the first sentence as well as in the headline and on the right hand side in the table</p>		
response	<p><i>Accepted</i></p> <p>Accepted and METAR is included.</p>		
comment	<p>338 comment by: <i>ENAV</i></p> <p>Page 61, AMC2 MET.TR.252 (d)(3) - The text of the table reported in this segment is to be referred not only to local routine and special reports but also to METAR. In fact the intensity qualifiers "FBL", "MOD" and "HVV" are applicable to local routine and special reports, while "-", "no indication" and "+" are applicable to METAR</p>		
response	<p><i>Accepted</i></p> <p>Accepted and METAR is included.</p>		



comment	<p>365</p> <p>comment by: <i>ENAC Italy</i></p> <p>The text of the table reported in AMC2 MET.TR.252 (d)(3) is to be referred not only to local routine and special reports but also to METAR. In fact the intensity qualifiers “FBL”, “MOD” and “HVY” are applicable to local routine and special reports, while “-”, “no indication” and “+” are applicable to METAR.</p>
response	<p><i>Accepted</i></p> <p>Accepted and METAR is included.</p>
comment	<p>368</p> <p>comment by: <i>Isavia ltd.</i></p> <p>AMC2 MET.TR.252 (d)(3) METAR needs to be added to the list of concerning reports Differs from Annex 3: Intensity is only used with certain phenomena, reference with tables 4 and 5</p>
response	<p><i>Accepted</i></p> <p>Accepted and METAR is included.</p>

3. Proposed amendments — 3.2. Draft Acceptable Means of Compliance and Guidance Material (Draft EASA Decision), Section 2 — Specific requirements — Chapter 3 — Technical requirements for meteorological stations — AMC1 MET.TR.252(d)(3)(i) Reporting of meteorological elements p. 61-62
'PRESENT WEATHER PHENOMENA — CHARACTERISTICS'

comment	<p>337</p> <p>comment by: <i>ENAV</i></p> <p>Page 61, AMC1 MET.TR.252 (d)(3)(i) - First of all, the verb “shall” doesn’t seem to be consistent with an AMC. Moreover, we believe that, as in the previous paragraphs (AMC1 MET.TR.252(d)(1), AMC1 MET.TR.252(d)(3) etc.), also in AMC1 MET.TR.252 (d)(3)(i) it should be specified if the text is referred to reports by automatic or semi-automatic observing systems. We think that reporting of TS and FZ (particularly of TS) should be considered as mandatory only for reports issued by semi-automatic observing systems</p>
response	<p><i>Accepted</i></p> <p>This AMC has been deleted because it was a duplicate of MET.TR.252(d)(3). It was, therefore, not meant to be in AMC material (editorial mistake) and reporting of TS and FZ is, thus, correctly reflected in the IR.</p>
comment	<p>363</p> <p>comment by: <i>ENAC Italy</i></p> <p>First of all, the verb “shall” doesn’t seem to be consistent with an AMC. Moreover, we believe that, as in the previous paragraphs (AMC1 MET.TR.252(d)(1), AMC1 MET.TR.252(d)(3) etc.), also in AMC1 MET.TR.252 (d)(3)(i) it should be specified if the text is</p>



	referred to reports by automatic or semi-automatic observing systems. We think that reporting of TS and FZ (particularly of TS) should be considered as mandatory only for reports issued by semi-automatic observing systems.
response	<p><i>Accepted</i></p> <p>This AMC has been deleted because it was a duplicate of MET.TR.252(d)(3). It was, therefore, not meant to be in AMC material (editorial mistake) and reporting of TS and FZ is, thus, correctly reflected in the IR.</p>

3. Proposed amendments — 3.2. Draft Acceptable Means of Compliance and Guidance Material (Draft EASA Decision), Section 2 — Specific requirements — Chapter 3 — Technical requirements for meteorological stations — AMC1 MET.TR.252(e)(1) Reporting of meteorological elements 'CLOUD — REPORTING'

p. 62

comment	<p>389</p> <p>(b) (3) explain "to be changed" in "The following should be used only when the obscuration consists predominantly of lithometeors and the visibility is 5000 m or less, except 'SA' when qualified by 'DR' to be changed and volcanic ash :</p>	comment by: <i>Météo-France</i>
response	<p><i>Accepted</i></p> <p>This is an editorial error.</p>	

3. Proposed amendments — 3.2. Draft Acceptable Means of Compliance and Guidance Material (Draft EASA Decision), Section 2 — Specific requirements — Chapter 3 — Technical requirements for meteorological stations — AMC2 MET.TR.252(e)(1) Reporting of meteorological elements 'CLOUD — REPORTING'

p. 62-63

comment	<p>110</p> <p>AMC1 MET.TR.252 (e)(1) Rules for rounding (downwards) height of cloud base/vertical visibility which doesn't fit the reporting scale must definitely be included</p>	comment by: <i>Finnish Meteorological Institute</i>
response	<p><i>Accepted</i></p> <p>These rules are already contained in MET.TR.252(e)(2).</p>	
comment	<p>306</p> <p>France considers the sensors are not suitable to measure vertical visibility. Vertical visibility is not an operationally useful parameter contrary to the “equivalent ceiling” information that many countries provide, including France. AMC2 MET.TR.252(e)(1) should take that into account.</p>	comment by: <i>Air transport directorate</i>



response *Noted*

The comment is understood. This AMC is literally a copy–paste from ICAO Annex 3. As it is AMC material, any different measurement approach may be proposed by France if considered necessary.

comment 372

comment by: *Isavia ltd.*

AMC1 MET.TR.252 (e)(1)

For cloud base and vertical visibility the rounded down rules are missing:

Any observed value which does not fit the reporting scale shall be rounded down to the nearest lower step in the scale.

response *Accepted*

These rules are already contained in MET.TR.252(e)(2).

comment 391

comment by: *Météo-France*

explain why "any observed value which does not fit the reporting scale shall be rounded down to the nearest lower step in the scale" is missing at the end of the sentence.

response *Noted*

The missing sentence is covered in MET.TR.252(e)(2). The ICAO recommendation contains a 'shall' and, therefore, it has been included in the IR.

3. Proposed amendments — 3.2. Draft Acceptable Means of Compliance and Guidance Material (Draft EASA Decision), Section 2 — Specific requirements — Chapter 3 — Technical requirements for meteorological stations — AMC1 MET.TR.255(a)(3) Observing meteorological elements 'OPERATIONALLY DESIRABLE ACCURACY OF MEASUREMENT OR OBSERVATION FOR WIND'

p. 64

comment 266

comment by: *Amela Jericevic*

The wind is very well addressed regarding accuracy. However all listed observed meteorological elements should meet specified accuracy according to Attachment A to ICAO, Annex3.

response *Noted*

MET.OR.100(b) already caters for that objective:

MET.OR.100 Meteorological data & information



(a) ...

(b) A meteorological services provider shall confirm the operationally desirable accuracy of the information distributed for operations, including the source of such information, whilst also ensuring that such information is distributed in a timely manner, and updated as required.

3. Proposed amendments — 3.2. Draft Acceptable Means of Compliance and Guidance Material (Draft EASA Decision), Section 2 — Specific requirements — Chapter 3 — Technical requirements for meteorological stations — AMC1 MET.TR.255(c) Observing meteorological elements 'RVR ASSESSMENT'

p. 65

comment

304

comment by: Air transport directorate

It is necessary to introduce more flexibility in the writing of **AMC1 MET.TR.255(c)-b**, especially for the materials that are already installed at more than 120m. It will be expensive for aerodrome operators to move these materials for an almost null improvement in the quality of the measure. Moreover, it is important to add a mention "*without prejudice of the provisions of regulation n°139/2014 and its certification specification*" that fixes constraints on the installation of materials too close to the runway and the interventions that can be undertaken on them.

response

Not accepted

The AMC provides the possibility to comply with the requirement in a different way. Therefore, the flexibility is given and the 120 m-lateral distance can be extended, if needed, for materials that are already installed at more than 120 m.

3. Proposed amendments — 3.2. Draft Acceptable Means of Compliance and Guidance Material (Draft EASA Decision), Section 2 — Specific requirements — Chapter 3 — Technical requirements for meteorological stations — AMC1 MET.TR.255(c)(3) Observing meteorological elements 'RVR — DISPLAY'

p. 66-67

comment

300

comment by: European Transport Workers Federation - ETF

This comment is referring to on the NPA-2014/07-B about this AMC : Changing Standards into Guidance Material could lead to confusion in future when a PANS-MET may be introduced by ICAO to distinguish SARPS from acceptable means of compliance

response

Noted

The Agency takes note of the comment.

However, this AMC transposes Recommendation 4.3.3.2 of Appendix 3 ICAO Annex 3 and not a standard.

comment

390

comment by: Météo-France



response	(a) explain why "except where the provisions of MET.OR.251 apply" is missing at the end of the sentence.
	<i>Accepted</i> The relevant missing point from GM1 MET.OR.250(a)(1) — transposed from 3.2.2 of Appendix 3 Annex 3 — is included in the revised text accordingly.

3. Proposed amendments — 3.2. Draft Acceptable Means of Compliance and Guidance Material (Draft EASA Decision), Section 2 — Specific requirements — Chapter 3 — Technical requirements for meteorological stations — AMC1 MET.TR.255(e)(2) Observing meteorological elements 'CLOUD — SITING'

p. 67

comment	111	comment by: <i>Finnish Meteorological Institute</i>
	<p>AMC1 MET.TR.255 (e)(2)(b) Annex 3 requirements have been changed in AMDT76, cloud observations should be representative for THR area as mentioned also above in this document. Annex 3 text is about to be changed in AMDT77, siting near thresholds</p>	
response	<p><i>Noted</i> This AMC has been transposed from Recommendation 4.5.1 of Appendix 3 to ICAO Annex 3 with no change. The Agency can only transpose provisions that are currently adopted by the ICAO Council in its latest version of Annex 3. Any transposition of changes in the future of Annex 3 provisions is subject to a future task that will be initiated by the Agency.</p>	

3. Proposed amendments — 3.2. Draft Acceptable Means of Compliance and Guidance Material (Draft EASA Decision), Section 2 — Specific requirements — Chapter 3 — Technical requirements for meteorological stations — GM1 MET.TR.255(e)(2) Observing meteorological elements 'CLOUD — SITING'

p. 68

comment	112	comment by: <i>Finnish Meteorological Institute</i>
	<p>GM1 MET.TR.255 (e)(2) Annex 3 requirements have been changed in AMDT76, cloud observations should be representative for THR area as mentioned also above in this document. Annex 3 text is about to be changed in AMDT77, siting near thresholds</p>	
response	<p><i>Noted</i> This GM has been transposed from the Note related to Recommendation 4.5.1 of Appendix 3 to ICAO Annex 3 with no change. The Agency can only transpose provisions that are currently adopted by the ICAO Council in its latest version of Annex 3. Any transposition of changes in the future of Annex 3 provisions</p>	



is subject to a future task that will be initiated by the Agency

3. Proposed amendments — 3.2. Draft Acceptable Means of Compliance and Guidance Material (Draft EASA Decision), Section 2 — Specific requirements — Chapter 3 — Technical requirements for meteorological stations — AMC1 MET.TR.255(f) Observing meteorological elements 'AIR TEMPERATURE AND DEW-POINT TEMPERATURE — GENERAL'

p. 68

comment	400	comment by: <i>BAF-M.Jancokova</i>
	- Page 68 AMC1 MET.TR.225 (f) definition of automated equipment is missing.	
response	<p><i>Noted</i></p> <p>This is correct. The Agency shall consider including it in the future. Currently, no definition of automated equipment exists. The development of such definition should be carefully assessed by the appropriate experts.</p>	

5. Appendices — I. Templates and tables related to Subpart B of Annex IV (Part-MET)

p. 73-103

comment	9	comment by: <i>Jan Sondij</i>
	Page 91 Table 4a second row: ERROR Reference ource not found.	
response	<p><i>Accepted</i></p> <p>This is an editorial mistake following the formatting of the NPA text.</p>	
comment	113	comment by: <i>Finnish Meteorological Institute</i>
	<p>Table 5 - METAR</p> <p>Identification: SPECI, SPECI COR is included in the table, must be removed due to SPECI not being used in Europe</p> <p>Cloud: incorrect examples</p> <ul style="list-style-type: none"> • FEW015 VV005 (not allowed to use simultaneously), should be separate • OVC030 VV/// (not allowed to use simultaneously), should be separate • ///CB incorrect, should be /////CB 	
response	<p><i>Accepted</i></p> <ul style="list-style-type: none"> — Correct and now the reference to SPECI and SPECI COR has been deleted. — Cloud: The table in the NPA reproduces the way it is shown in Template A3-2 in ICAO Annex 3. The Agency will investigate this before the publication of the Opinion. 	



comment	135	comment by: <i>Belgocontrol</i>
	Some/most ambiguity in ICAO Annex 3 comes from the templates: e.g. which present/recent weather combination are allowed or not cannot be determined from the template; some location descriptions for SIGMET and AIRMET are preferred for some phenomena and some are better not used; this cannot be derived from the templates; if the harmonized, consistent use is a goal for Europe than some more attention should be paid to such details	
response	<p><i>Noted</i></p> <p>The Agency takes note of this comment/statement.</p>	
comment	221	comment by: <i>ATC the Netherlands</i>
	Page 91 Table 4a second row: ERROR Reference ource not found.	
response	<p><i>Accepted</i></p> <p>This is a format/editorial error that has been corrected.</p>	
comment	253	comment by: <i>MeteoSwiss</i>
	In Annex 3 all the templates are supported by numerous notes to specify various items in more detail. These valuable notes are omitted in the regulation. We agree, that not all the notes must be included, especially "In accordance with...." which is only a link to another paragraph. On the other hand there are notes such as Note 22, 23, 24, 27, 29 for SIGMET/AIRMET-messages (Annex 3: Table A6-1. Template for SIGMET and AIRMET messages and special air-reports (uplink)) which are crucial to be in line with the standards. Please specify how you will deal with the notes in den templates.	
response	<p><i>Accepted</i></p> <p>Only the relevant notes will be kept. The ones referring to paragraphs in Annex 3 shall not be transposed as these references are no longer the same in the draft rules.</p>	
comment	271	comment by: <i>DWD</i>
	MET.TR.252 Reporting of meteorological elements (a) Surface wind direction and speed (3)(v) is inconsistent with the referenced tables 4a (page 91 of the NPA) und 5a (page 95): the draft rule itself allows to report wind speeds above 100kt as "more than 99kt" whereas the tables specify a reporting range from 0 to 199kt. While this is equivalent to ICAO Annex 3, the tables in the proposed EASA annex leave out the footnote from the ICAO annex that there is no user requirement for the exact wind speed above 100kt. For completeness here	



excerpts from the relevant ICAO and WMO publications:

- ICAO Doc 8896 – Manual of Aeronautical Meteorological Practice, 9th edition 2011, page 2-6, 2.3.8.3 b):

"(...) in METAR, as the maximum value of the wind speed, after indication of the mean wind direction and speed and preceded by the letter indicator G (for gusts). The minimum wind speed is never included. When wind speed is 50 m/s (100 kt) or more, the wind speed is reported as P49MPS (P99KT) (...)"

- WMO-No. 306 - Manual on Codes, International Codes, VOLUME I.1, PART A – Alphanumeric Codes, 2012th edition, FM 15, page A-29, 15.5.6:

"(...) For wind speeds of 100 units or greater, the exact number of wind speed units shall be given in lieu of the two-figure code ff or fmfm. When the wind speed is 50 m s⁻¹ (100 knots) or more, the groups ff and fmfm shall be preceded by the letter indicator P and reported as P49MPS (P99KT).

Note: There is no aeronautical requirement to report surface wind speeds of 50 m s⁻¹ (100 KT) or more; however, provision has been made for reporting wind speeds up to 99 m s⁻¹ (199 KT) for nonaeronautical purposes, as necessary. (...)"

- ICAO Annex 3 - ..., 18th edition, APP 3-7, 4.1.5.2 e):

"(...) when a wind speed of 50 m/s (100 kt) or more is reported, it shall be indicated to be more than 49 m/s (99 kt); (...)"

Wenn man nun hier noch das Template von Seite APP 3-23 hinzunimmt, wird auch klar, wie man dies zu kennzeichnen hat. Hier ist zu lesen bei Examples: „140P149MPS (**140P99KT**)“.

DWD requests to include the ICAO footnote in the tables 4a (page 91 of the NPA) und 5a (page 95).

response

Accepted

The footnotes have been inserted in the relevant tables.

comment

373

comment by: *Isavia ltd.*

Table 5 - METAR

Identification: Here SPECI, SPECI COR is included in the table

Clouds examples incorrect or typing error and also in Annex 3:

FEW015 VV005 are not allowed simultaneously

OVC030 VV/// are not allowed simultaneously

///CB should be /////CB

response

Accepted

— Correct and now the reference to SPECI and SPECI COR has been deleted.

— Cloud: The table in the NPA reproduces the way it is shown in Template A3-2 in ICAO Annex 3. The Agency will investigate this before the publication of the Opinion.

comment

401

comment by: *BAF-M.Jancokova*

- Page 95 (Error in message in table 5a)

response

Accepted



This is a format/editorial error that has been corrected.

5. Appendices — III. Cross-reference table — Implementing Rules

p. 103-110

comment

114

comment by: *Finnish Meteorological Institute*

General comment:

References are incorrect between text and table

response

Noted

5. Appendices — IV. MET rules of Annex IV — Subpart A of NPA 2013-08 (B) — Implementing Rules

p. 118-125

comment

252

comment by: *IMO*

DISAGREEMENT

MET.OR.215 p121

An aerodrome meteorological office shall:

(d) provide briefing, consultation, and flight documentation to flight crew members and/or other flight operations personnel;

Annex 3

9.2.4 Annex 3 – p 65 The required briefing, consultation, display and/or flight documentation shall normally be provided by the aerodrome meteorological office associated with the aerodrome of departure. At an aerodrome where these services are not available, arrangements to meet the requirements of flight crew members shall be as agreed upon between the meteorological authority and the operator concerned.

In Annex 3 it states very clearly “shall normally” and the second sentence states clearly if not – arrange that someone else can do it – maybe a private company.

MET.OR.215 states no exception – arguing that “provide” includes the option of an intermediate party is not very useful.

Suggestion - keep the Annex 3 wording.

response

Noted

Please note that the Agency reproduced for **information only** the text from MET.OR published with NPA 2013-08. As mentioned in the Explanatory Note to NPA 2014-07, this MET.OR text may not be the latest version since this NPA was subject to change following the revised text of the CRD to NPA 2013-08. NPA 2014-07 stated ‘Please note that the below rule text is the one currently proposed in NPA 2013-08 and does not contain the possible changes stemming from the current revision under the CRD process.’ The Agency will, of course, review the comments on MET.OR made under this NPA and assess whether they are still relevant. In that case, the changes to the MET.OR text will be brought to the final revised



text in the Opinion.

comment

285

comment by: LEGMC

MET.OR.215 (d)

Annex 3 AMD76 9.2.4. states "The required briefing, consultation, display and/or flight documentation **shall normally** be provided by the aerodrome meteorological office associated with the aerodrome of departure. At an aerodrome where these services are not available, arrangements to meet the requirements of flight crew members **shall be as agreed upon** between the meteorological authority and the operator concerned".

MET.OR.215 states no exception – it can increase costs significantly for the aerodrome meteorological office.

response

Noted

Please note that the Agency reproduced for **information only** the text from MET.OR published with NPA 2013-08. As mentioned in the Explanatory Note to NPA 2014-07, this MET.OR text may not be the latest version since this NPA was subject to change following the revised text of the CRD to NPA 2013-08. NPA 2014-07 stated 'Please note that the below rule text is the one currently proposed in NPA 2013-08 and does not contain the possible changes stemming from the current revision under the CRD process.' The Agency will, of course, review the comments on MET.OR made under this NPA and assess whether they are still relevant. In that case, the changes to the MET.OR text will be brought to the final revised text in the Opinion.

comment

321

comment by: ENAV

Page 119, MET.OR.110 - The term "other meteorological offices" is used in this segment even though the definition of "meteorological office" is missing. The definition should be transposed to take into account other meteorological offices, existing in many States, operating in support of aerodrome meteorological offices and meteorological watch offices.

response

Noted

Please note that the Agency reproduced for **information only** the text from MET.OR published with NPA 2013-08. As mentioned in the Explanatory Note to NPA 2014-07, this MET.OR text may not be the latest version since this NPA was subject to change following the revised text of the CRD to NPA2013-08. NPA 2014-07 stated 'Please note that the below rule text is the one currently proposed in NPA 2013-08 and does not contain the possible changes stemming from the current revision under the CRD process.' The Agency will, of course, review the comments on MET.OR made under this NPA and assess whether they are still relevant. In that case, the changes to the MET.OR text will be brought to the final revised text in the Opinion.



comment	328	comment by: ENAC Italy
	In MET.OR.110 the term “other meteorological offices” is used in this segment even though the definition of “meteorological office” is missing. The definition should be transposed to take into account other meteorological offices, existing in many States, operating in support of aerodrome meteorological offices and meteorological watch offices.	
response	<p>Noted</p> <p>Please note that the Agency reproduced for information only the text from MET.OR published with NPA 2013-08. As mentioned in the Explanatory Note to NPA 2014-07, this MET.OR text may not be the latest version since this NPA was subject to change following the revised text of the CRD to NPA 2013-08. NPA 2014-07 stated ‘Please note that the below rule text is the one currently proposed in NPA 2013-08 and does not contain the possible changes stemming from the current revision under the CRD process.’ The Agency will, of course, review the comments on MET.OR made under this NPA and assess whether they are still relevant. In that case, the changes to the MET.OR text will be brought to the final revised text in the Opinion.</p>	
comment	335	comment by: ENAV
	<p>Page 123, MET.OR.250 (a) - The text of MET.OR.250 (a) states that meteorological stations shall “disseminate” local routine and local special reports (only at the aerodrome of origin) and METAR (beyond the aerodrome of origin) to many different entities specified in MET.OR.005(b): please note that the verb “disseminate” would imply that those messages are to be supplied to all those users on a regular basis, which is not the case: we suggest to replace “disseminate” with “make available, according to specific needs or requests”</p>	
response	<p>Noted</p> <p>Please note that the Agency reproduced for information only the text from MET.OR published with NPA 2013-08. As mentioned in the Explanatory Note to NPA 2014-07, this MET.OR text may not be the latest version since this NPA was subject to change following the revised text of the CRD to NPA 2013-08. NPA 2014-07 stated ‘Please note that the below rule text is the one currently proposed in NPA 2013-08 and does not contain the possible changes stemming from the current revision under the CRD process.’ The Agency will, of course, review the comments on MET.OR made under this NPA and assess whether they are still relevant. In that case, the changes to the MET.OR text will be brought to the final revised text in the Opinion.</p>	
comment	347	comment by: ENAV
	<p>Page 122, MET OR.235 - We suggest to join items b) and c). In fact, even though in the present formulation it seems to deal with a different product, item c) also deals with wind shear warning, as well as item b).</p> <p>In addition, with respect to item d) please note that technically speaking wind shear alerts are not issued by aerodrome meteorological office, being them issued by automated ground-</p>	



	<p>based systems. Moreover in our opinion for sake of clarity it would be preferable to treat aerodrome warnings, wind shear warnings and wind shear alerts in separate segments.</p>
response	<p><i>Noted</i></p> <p>Please note that the Agency reproduced for information only the text from MET.OR published with NPA 2013-08. As mentioned in the Explanatory Note to NPA 2014-07, this MET.OR text may not be the latest version since this NPA was subject to change following the revised text of the CRD to NPA 2013-08. NPA 2014-07 stated 'Please note that the below rule text is the one currently proposed in NPA 2013-08 and does not contain the possible changes stemming from the current revision under the CRD process.' The Agency will, of course, review the comments on MET.OR made under this NPA and assess whether they are still relevant. In that case, the changes to the MET.OR text will be brought to the final revised text in the Opinion.</p>

comment	<p>366</p> <p>comment by: ENAC Italy</p>
	<p>Page 122, MET.OR.235: we suggest to join items b) and c). In fact, even though in the present formulation it seems to deal with a different product, item c) also deals with wind shear warning, as well as item b). In addition, with respect to item d) please note that technically speaking wind shear alerts are not issued by aerodrome meteorological office, being them issued by automated ground-based systems. Moreover in our opinion for sake of clarity it would be preferable to treat aerodrome warnings, wind shear warnings and wind shear alerts in separate segments.</p>
response	<p><i>Noted</i></p> <p>Please note that the Agency reproduced for information only the text from MET.OR published with NPA 2013-08. As mentioned in the Explanatory Note to NPA 2014-07, this MET.OR text may not be the latest version since this NPA was subject to change following the revised text of the CRD to NPA 2013-08. NPA 2014-07 stated 'Please note that the below rule text is the one currently proposed in NPA 2013-08 and does not contain the possible changes stemming from the current revision under the CRD process.' The Agency will, of course, review the comments on MET.OR made under this NPA and assess whether they are still relevant. In that case, the changes to the MET.OR text will be brought to the final revised text in the Opinion.</p>

comment	<p>367</p> <p>comment by: ENAC Italy</p>
	<p>Page 123, MET.OR.250(a): The text of MET.OR.250(a) states that meteorological stations shall "disseminate" local routine and local special reports (only at the aerodrome of origin) and METAR (beyond the aerodrome of origin) to many different entities specified in MET.OR.005(b): please note that the verb "disseminate" would imply that those messages are to be supplied to all those users on a regular basis, which is not the case: we suggest to replace "disseminate" with "make available, according to specific needs or requests".</p>



response

Noted

Please note that the Agency reproduced for **information only** the text from MET.OR published with NPA 2013-08. As mentioned in the Explanatory Note to NPA 2014-07, this MET.OR text may not be the latest version since this NPA was subject to change following the revised text of the CRD to NPA 2013-08. NPA 2014-07 stated 'Please note that the below rule text is the one currently proposed in NPA 2013-08 and does not contain the possible changes stemming from the current revision under the CRD process.' The Agency will, of course, review the comments on MET.OR made under this NPA and assess whether they are still relevant. In that case, the changes to the MET.OR text will be brought to the final revised text in the Opinion.

comment

402

comment by: *BAF-M.Jancokova*

- Page 120 Meteorological Watch Office (MWO): Definition is missing

response

Noted

Please note that the Agency reproduced for **information only** the text from MET.OR published with NPA 2013-08. As mentioned in the Explanatory Note to NPA 2014-07, this MET.OR text may not be the latest version since this NPA was subject to change following the revised text of the CRD to NPA 2013-08. NPA 2014-07 stated 'Please note that the below rule text is the one currently proposed in NPA 2013-08 and does not contain the possible changes stemming from the current revision under the CRD process.' The Agency will, of course, review the comments on MET.OR made under this NPA and assess whether they are still relevant. In that case, the changes to the MET.OR text will be brought to the final revised text in the Opinion.

5. Appendices — V. No differences to be filed by the European Union Member States

p. 129-131

comment

115

comment by: *Finnish Meteorological Institute*

General comments:

At the moment there are system upgrades going on or planned. They will not be done when this regulation will come into effect. Because of this a transition period for the whole regulation should be allowed, for example 5 years (covering reference period 2 in SES legislation), so that the countries can also take into account in their MET cost base possible needs to upgrade their systems (the cost base for RP2 has already been set).

response

Noted

The Agency takes note of this comment.

comment

278

comment by: *LEGMC*

Due to current system limitations differences should be allowed, at least until all systems



response

have been upgraded.

Noted

Please note that in the European legislation framework, no differences against European Union rules are possible as it is the case in the ICAO legal framework. Yet, European regulations allow for transition periods that give some time to the affected parties to be able to comply with the regulations.



NPA 2014-07 (B)

comment	<p>1 comment by: Finnish Meteorological Institute</p> <p>Overall many mistakes in referencing text and tables between NPA 2014-07 (A) and NPA 2014-07 (B). FMI has given all comments assuming that text in NPA 2014-07 (A) is the intended EASA proposal.</p> <p>FMI has used this document more as a tool to interpret transposing of Annex 3 to NPA 2014-07 (A).</p> <p>Annex 3 Appendix 1 - Flight Documentation - Model Charts and Forms is missing from this document completely. Where are the examples of low level SIGWX charts described now?</p> <p>SPECI related criteria for operational significant changes has been deleted from EASA transpose of Annex 3 completely (pages 46-52) which will lead to significant loss of aviation safety and consistency of MET service between EU Member States and to a disarray of requirements even in State level. It will decrease the service level and quality for users concerning SPECIAL report, TAF, WARNINGS, AREA FORECAST and to local SIGWX charts. FMI demands that these SPECI rules are to be included in local special report criteria.</p>
response	<p><i>Accepted</i></p> <p>Noted. The Agency recognises some misalignments in the references numbering due to late changes to the rule text document. Please note that NPA 2014-07 (A) is the document to be referred to when commenting on the rules.</p> <p>The Model charts and Forms of Appendix 1 of ICAO Annex 3 are covered by reference in the NPA but they will be inserted in the revised text in order to avoid references to ICAO Annex 3.</p> <p>The related criteria for local special reports are reinserted in the revised text.</p>
comment	<p>5 comment by: UK CAA</p> <p>Please be advised there are no comments from the UK CAA on NPA 2017-07(B) Technical requirements and operational procedures for the provision of meteorological services, drafting document table.</p>
response	<p><i>Noted</i></p>
comment	<p>11 comment by: Amela Jericevic</p> <ul style="list-style-type: none"> In NPA 2013-08 Annex IV, MET.OR.100 the quality of the data & information is recognized as an important safety issue and it is stated that meteorological services shall confirm the accuracy of the distributed information (forecasted and observed). Technical requirements fully transpose requests on forecasted meteorological information that are defined in ICAO, Annex 3, Attachment B. However desirable



	<p>accuracy requirements defined in ICAO, Annex 3, Attachment A for observed elements are not fully transposed (only for wind) and a paragraph that would address this issue is missing. It is extremely important that level of accuracy for measured and observed data defined in ICAO, Annex 3 is transposed and applied through technical requirements for all meteorological parameters. WMO practices are mentioned in NPA 2014-07 (A) MM1 MET.TR.255 however the relevant specific WMO document (WMO-8), already referenced in ICAO, Annex 3, should be used as guidance material. Generally more emphasis to WMO practice should be given in GM.</p> <ul style="list-style-type: none"> According to the Annex A - CRD to NPA 2013-08 after consultation with stakeholders it is proposed by EASA to use the term 'desirable accuracy'. However this is not an appropriate legal term. Regulation can not require desirable accuracy. Legislative acts should define the level of expected and requested quality of data while AMC or GM should explain what is actually requested and propose the best practice how to achieve those levels based on expert knowledge (WMO). ICAO, Annex 3 sets globally applicable standards and its transposition should reflect the uniform quality of service at EU level by defining clear goals that should be achieved based on ICAO recommendation. Therefore the application of term 'desirable accuracy' is not recommended.
response	<i>Noted</i>
comment	<p>13 comment by: Northern Europe Aviation Meteorology Consortium (NAMCon)</p> <p>Text is not the same as in (A) in many parts and there are references to AMDT75 of Annex 3.</p>
response	<i>Noted</i>
comment	<p>26 comment by: ENAV</p> <p>Attachment #1</p> <p>All comments made by ENAV have been agreed with the Italian Meteo Authority (ENAC) and Italian Air Force (Italian representative of WMO)</p>
response	<p><i>Noted</i></p> <p>Please see the responses to the ENAV-ENAC joint comments (comment No 10 to this NPA) as they are the same for this NPA 2014-07 (B).</p>
comment	<p>56 comment by: Swiss International Airlines / Bruno Pfister</p> <p>SWISS Intl Air Lines take note of the NPA 2014-07 without further comments</p>
response	<i>Noted</i>
comment	<p>58 comment by: BAF-M.Jancokova</p> <p>General comments</p> <p>- Though you noted that GAMET is not solved yet, you should make it to a topic in this NPA because the GAMET is a standardised disseminated product closely linked to</p>



	<p>SIGMETs and AIRMETs.</p> <p>- The same applies to SPECIs, it also should be mentioned in this NPA due to the same reasons</p>
response	<p><i>Not accepted</i></p> <p>GAMET: The comment is noted. The Agency's position is to not regulate GAMET at European level at this stage because it is understood that GAMET is not uniformly implemented in Europe. ICAO Annex 3 does not oblige Contracting States to issue forecast for low-level flight in the form of GAMET, but only stipulates that, if they issue forecast for low-level flight in abbreviated plain language, the GAMET format shall be used in accordance with ICAO provisions. Therefore, the Agency considers that the proposed rules on low-level forecasts which enable the competent authority to decide on the issuance of these types of forecast based on traffic density and user requirements are sufficient as this may include GAMET, as well as other forms of low-level flights forecasts. The issuance and form of the low-level flight forecasts is left to the decision of the competent authority. Every Member State can still decide if it wishes to issue low-level forecasts in the form of a GAMET.</p> <p>SPECI: The draft rules do not require the issuance of SPECI in Europe and international dissemination when half-hourly METARs are issued. This approach is in line with ICAO Annex 3 and the EUR ANP. However, the rules do not forbid to issue SPECI, for instance in the case only hourly METARs are issued. SPECI may still be issued then. It is the decision of each State, in agreement with its provider, to decide if, in that case, SPECI shall be issued or not for national dissemination.</p>

Notice of Proposed Amendment (NPA) 2014-07 (B) — Technical requirements and operational procedures for the provision of meteorological services — Drafting document table

p. 1

comment	<p>10</p> <p>comment by: <i>ENAC Italy</i></p> <p>Attachment #2</p> <p>Attached a file with some comments to the material contained in this part of NPA 2014-07.</p> <p>Please note, in particular, that we disagree on the cancellation of SPECI based on the assumption, not true in our opinion, that they are not used anymore in Europe.</p> <p>In particular SPECI are required for all airports where hourly METAR are still issued.</p>
response	<p><i>Noted</i></p> <p>SPECI: The draft rules do not require the issuance of SPECI in Europe and international dissemination when half-hourly METARs are issued. This approach is in line with ICAO Annex 3 and the EUR ANP. However, the rules do not forbid to issue SPECI, for instance in the case only hourly METARs are issued. SPECI may still be issued then. It is the decision of each State, in agreement with its provider, to decide if, in that case, SPECI shall be issued or not for national dissemination.</p>



The responses to the comments in the attachment provided by ENAV and ENAC are given below:

- Definition of 'Aerodrome': This is correct. The definition to be used for the purpose of the MET rules is the one contained in Regulation (EC) No 216/2008 and in Regulation (EU) No 139/2014.
- Definition of 'Alternate aerodrome': This is correct. The definition to be used for the purpose of the MET rules is the one contained in Regulation (EC) No 216/2008 and in Regulation (EU) No 139/2014.
- '*Appropriate ATS authority*': 'ATS authority' is changed to 'ATS units', which is the correct term to be used in the context of these rules.
- Definition of 'meteorological office': Not accepted. Every office (or station) is precisely defined in accordance with the type of obligations they perform. The term 'meteorological service provider' is used when no distinction is made between one specific office (or station). This term is used in Section 1 'General Requirements' because it applies to all of them. The term 'other meteorological office' has been replaced by 'meteorological service providers'.
- 'Minimum sector altitude': Accepted. The following definition is the one contained in ICAO Annex 3: 'The lowest altitude which may be used which will provide a minimum clearance of 300 m (1 000 ft) above all objects located in an area contained within a sector of a circle of 46 km (25 NM) radius centred on a radio aid to navigation.'
- Annex 3, Appendix 3, par. 1.3: Accepted and included as AMC1 MET.TR.255.
- Annex 3, Appendix 3, par. 2.1.1: Accepted. The table is moved to AMC material.
- SPECI: The draft rules do not require the issuance of SPECI in Europe and international dissemination when half-hourly METARs are issued. This approach is in line with ICAO Annex 3 and the EUR ANP. EASA rules (especially those related to aerodromes) do not make the difference between both categories of aerodromes mentioned in the EUR ANP (RS and AS). However, the rules do not forbid to issue SPECI, for instance in the case only hourly METARs are issued. SPECI may still be issued then. It is the decision of each State, in agreement with its provider, to decide if, in that case, SPECI shall be issued or not for national dissemination.
- Appendix 3., 2.2 'CAVOK': Accepted and the paragraph has been moved to include also local routine and special reports.
- Appendix 3, par. 2.3.1 c), e) and f): Accepted and changed.
- Appendix 3, par. 2.3.2 and 2.3.3: Accepted and all the criteria are inserted in the revised text.
- Appendix 3, 3.2.2: Not accepted. MET.OR.110(b) obliges the MET provider to provide the required MET information (local special reports) to the users (ATS units) in a timely manner (as soon as the specified conditions occur). The mentioned GM1 MET.OR.250(a)(1) is contained in the CRD to NPA 2013-08 (MET.OR part).



- Appendix 3, par. 4.1.2.1: Not accepted. This paragraph is covered in ICAO Annex 11. Furthermore, there is no obligation put on the function of meteorological stations in Annex 3. For consistency, the other provisions related to 'display' have been removed as well in the other subparagraphs.
- Appendix 3, 4.2.3 — Marked discontinuity: Accepted and inserted in the revised text.
- Annex 3, Appendix 3, par. 4.4.2.5: This AMC1 MET.TR.252(d)(3)(i) is deleted as it is duplicates the related IR MET.TR.252(d)(3). This is the reason why the term 'shall' was initially in the AMC as it was meant to be in the IR.
- Annex 3, Appendix 3, par. 4.4.2.7: Correct and inserted in the revised text.
- Appendix 3, par. 4.5.4.1: Not accepted. The requirement is that it shall be reported in steps of 30 m up to 3 000 m. The Agency considers that this is the common requirement that needs to be put in Europe and it is in accordance with ICAO Annex 3. Any reporting above this limit is to be decided by the competent authority.
- Appendix 4, para 3: Not accepted. An air-report is not a product generated by MET providers. Exchange of air-reports by voice com is covered by SERA, and the automatic air-reports are subject to a separate task on data link operations.
- Appendix 5, 2.2.3: Accepted and changed in MET.OR.230.
- MET.TR.215(b)(2): Accepted. 'Surface wind' is now included in the revised text.
- 'Independent of SIGMET type': Accepted. The Agency proposes to delete the reference to 'independent of SIGMET type' and to specify the different types, header and character number that a SIGMET message should contain, and proposes two additional Acceptable Means of Compliance. Please see MET.TR.205 and the related AMCs to it. The Agency hopes that this will clarify the intent of ICAO Annex 3 provision.
- Appendix 6, par. 1.2.1: Not accepted. This GM cannot be found in NPA 2014-07 but in CRD to NPA 2013-08 as it is linked to MET.OR provisions. This provision has been downgraded to Guidance Material because the requirement to disseminate SIGMET messages is already covered under MET.OR.205.
- Appendix 6, par. 2.1.2: Accepted and inserted in the revised text.
- Appendix 6, par. 4.2.6: Not accepted. The rationale mentioned in NPA 2014-07 (B) is that it should not be transposed as AMC but rather as Guidance Material, although it is a recommendation in ICAO Annex 3. The reason is that, when reading the text of ICAO Annex 3, this recommendation is not meant to 'recommend' a way to do something but only explains when turbulence is considered.
- Annex 3, Appendix 6: Accepted. The requirement is already divided between warnings, wind shear warnings, and alerts.
- Appendix 6, par. 6.1: Noted. This GM is in MET.OR.240 following the updated numbering reference.



- Appendix 8, par. 4.2.3: Accepted. Accepted and reference to ‘en-route meteorological conditions’ is added in the GM.
- Appendix 8, par. 6.2: Not accepted. The provision of meteorological information (those listed in 6.2 of Annex 3) to users (operators for panning whether it is on the ground or in-flight) is covered under MET.OR.110(b).
- Annex 3, Appendix 9, par. 1.1, 1.2, 1.3: Not accepted. These provisions are already covered under the different specific requirements for the various meteorological providers in MET.OR part.
- Appendix 10, 2.1.2: Accepted and changed — aligned with 6.2.2 of chapter 6 of ICAO Annex 3

comment 12

comment by: Amela Jericevic

Comments on Notice of Proposed Amendment 2014-07 (B)**1. AMC1 MET.TR.255(a) (3) Observing meteorological elements**

- It is well pointed that the reported direction and speed of the mean surface wind, as well as variations from the mean surface wind, should meet the operationally desirable accuracy of measurement as given in Attachment A of ICAO Annex 3. However this should also be requested for all other meteorological elements that are listed in the table of ICAO Annex 3, Attachment A (i.e. visibility, RVR, cloud amount and height, air temperature and dew point, pressure value) in the same manner as it is stated for the accuracy of forecasts.
- Referenced document WMO-8 should be transposed as a guidance material on the uncertainties of measurements or observation as it is pointed in *Note* in ICAO Attachment A. The recommended guidance material in ICAO, Annex 3 should be fully transposed as it is done for ICAO manuals (e.g. GM1 MET.TR.255 (c)(2) Observing meteorological elements (c) Guidance on the use of transmissometers and forward-scatter meters in instrumented Runway Visual Range systems is given in the Manual of Runway Visual Range Observing and Reporting Practices (Doc 9328)).

2. In ICAO Annex 3 4.1.2., an obligation on wind displays in meteorological station as well as in the ATS unit is introduced. However this obligation stated in 4.1.2.1 *Surface wind displays* is dismissed with an explanation that it was not transposed as it is a joint requirement on met stations and ATS unit and not only on met station. This explanation is non-adequate as similar requirement is set for e.g., visibility (AMC1 MET.TR.255(b)(3)) and RVR (AMC1 MET.TR.255 (c)(3)(i)). Therefore an unbalanced approach is applied for different elements and it should be corrected.

response *Partially accepted*

1. Accepted and changed accordingly.
2. Appendix 3, par. 4.1.2.1: Not accepted. This paragraph is covered in ICAO Annex 11. Furthermore, there is no obligation put on the function of meteorological stations in Annex 3. For consistency, the other provisions related to ‘display’ have been removed as well in the other subparagraphs.



comment	14	comment by: Northern Europe Aviation Meteorology Consortium (NAMCon)
	<p>The responsibilities of the State Volcano Observatories should be kept as according to Annex 3 AMDT76 as they have global roles not concerning only European airspace. A differing view could lead to confusion and decrease global interoperability.</p> <p>NAMCon demands that the parts related to SVOs be changed according to ICAO Annex 3 AMDT76.</p>	
response	<p><i>Not accepted</i></p> <p>Volcano observatories are not considered as being meteorological providers according to the proposed notion of service provider in EASA rules. Furthermore, they do not provide meteorological information as such.</p>	
comment	15	comment by: Northern Europe Aviation Meteorology Consortium (NAMCon)
	<p>The implementation of aerodrome warnings at all airports, while contributing to aviation safety, should be backed up by a robust definition of the concerned phenomena and it should be accepted that the additional costs for such a service will be borne by the airspace users beyond the agreed RP2 cost allocations.</p>	
response	<p><i>Noted</i></p>	

Comments on NPA 2014-07 (B)

p. 1

comment	2	comment by: JJulkunen
	<p>Regarding to the NPA 2014-07 (B) FINNISH AIR FORCES has some comments, which are very important for flight safety issues and flight operations.</p> <p>Pages: 42 - 50.</p> <p>Local routine (METREP) and SPECIAL messages are very important for flight personnel. SPECIAL threshold values are the most important and must (shall) be included in the local special report criterion. Threshold value shall not be deleted and have to be NPA. Criterion of SPECIAL are referring changes of weather parameters in SPECIAL messages. The forecasters (Meteorologists) as well pilots are following those thresholds when issuing/planning their TAF's/flight operations.</p> <p>ICAO Annex3 has the standard rules for aviation weather service ja help aviation to improve the flight safety - and ensure the quality of weather service (Weather observations and the forecasts for aviation). The common rules in global aviation is very important. Every country should follow common rules.</p>	
response	<p><i>Accepted</i></p> <p>Accepted. The criteria for local special reports have been reintroduced in the revised text.</p>	
comment	3	comment by: JJulkunen
	<p>Pager 209-210</p>	



response	<p>FINNISH AIR FORCES has comment on following sentence: "The period of validity of a routine TAF shall be either 9 hours or 24 or 30 hours and shall be filed for transmission at least 1 hour before the commencement of their period of validity." Sentence is inadequate or improper and should be specified more precisely. Issued (new) or amended TAF should be valid as soon as it becomes available for users. That's because of new forecast replaces/cancels out the valid TAF when using monitors.</p> <p><i>Accepted</i></p> <p>Accepted and now aligned with 6.2.2 of chapter 6 of ICAO Annex 3 ('not earlier than').</p>
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comment	<p>4 comment by: <i>Belgocontrol</i></p> <p>Attachment #3</p>
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response	<p><i>Noted</i></p> <p>The Agency would like to highlight the following concerning the comments submitted on this NPA but related to the MET.OR provisions:</p> <p>Please note that the Agency reproduced for information only the text from MET.OR published with NPA 2013-08. As mentioned in the Explanatory Note to NPA 2014-07, this MET.OR text may not be the latest version since this NPA was subject to change following the revised text of the CRD to NPA 2013-08. NPA 2014-07 stated 'Please note that the below rule text is the one currently proposed in NPA 2013-08 and does not contain the possible changes stemming from the current revision under the CRD process.' The Agency will, of course, review the comments on MET.OR made under this NPA and assess whether they are still relevant. In that case, the changes to the MET.OR text will be brought to the final revised text in the Opinion. Consequently, the comments related to MET.OR are not responded to under this NPA.</p> <ul style="list-style-type: none"> — General: Noted. — OPMET Databank: Accepted and changed accordingly. — MET.TR.265: In the case there would be no WAFC in Europe anymore, the rule would not apply. WAFC Washington do not have to follow the European Union rules, only the WAFC in London. — App2 - §2.1.1 & §2.1.2: Accepted and changed accordingly. — GM1 MET.TR.260 (b) (2): The ICAO Attachment is now transposed. — MET.TR.255: Partially accepted. The obligation to observe the MET elements needs to be included, but no reference to MET.OR.255 is needed as the list of elements follows. — App3 - §1.2 wrong reference: Noted. — App3 - §1.2: Correct, the GM is removed. — App3 - §1.3: Agreed and now included as GM.
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- MET.TR.250(b)(1): Accepted and moved to AMC.
- App3 - §2.1.2 & note MET.TR.250(c)(1) & related GM: Accepted and changed.
- App3 - §2.3.1 MET.TR.250(d): Noted
- MET.TR.250(d)(3): Partially accepted. The text is now replaced by 'latest local report'; 'special' is deleted.
- MET.TR.250(d)(5): Same as above.
- MET.TR.250(d): Accepted and now included.
- GM1 MET.TR.255(a): The ICAO Attachment is now transposed.
- GM1 MET.TR.255(a)(2)(ii): Not accepted. This GM explains when a marked discontinuity occurs. This provision does not constitute a mean of compliance here.
- AMC1 MET.TR.255(a)(3): Accepted. The ICAO Attachment is transposed.
- GM1 MET.TR.252(a)(3)(iii): This is correct. It is repeated as it is related to another requirement, even if the content is the same.
- AMC1 MET.TR.255(b)(3): Accepted. This AMC is deleted for consistency purposes.
- App3 - Note to §4.2.3: accepted and included.
- App3 - §4.2.4.3: Noted.
- App3 - §4.3.1.1: Noted.
- AMC1 MET.TR.255 (c) (3): Noted.
- RVR section: Noted.
- AMC1 MET.TR.252(c)(1): Noted.
- MET.TR.252(d)(1): Accepted and changed.
- AMC1 MET.TR.252(d)(3): Accepted and changed.
- AMC2 MET.TR.252(d)(3): Accepted and changed.
- MET.TR.252(d)(4): Noted.
- AMC1 MET.TR.252(e)(1): Noted.
- AMC1 MET.TR.252(e)(3): Noted.
- MET.TR.255: This AMC is deleted for consistency reasons.
- AMCx MET.TR.250(a)(12): Noted.
- AMCx MET.TR.250(a)(12): Noted and changed.
- AMC 2 MET.TR.252(d)(1): Correct; however, precipitation is part of the present weather phenomena. The reference was not reflected in the NPA because the list of precipitation types are included in the AMC itself.
- Table A3-1: Noted.



- GM2 MET.TR.250(b)(1): No reference to SPECI could be found.
- GM3 MET.TR.250(b)(1): Yes, because MET stations must report volcanic activities.
- App4 - §3.1: Not accepted. These obligations are considered as only being a means to provide the meteorological information but the requirement to provide the latter is covered in the different specific requirements for each MET provider.
- App5: The references are aligned with the CRD version of the MET.OR rules.
- App5 - §1.1.2: A reference to digital form for TAF is already included in MET.TR.225 (d)
- MET.TR.225 (d): Accepted and deleted.
- GM1 MET.TR.220(e): The ICAO Attachment is now transposed.
- App5 - Note to §1.3.2: Not accepted. The preference is to remove reference to SPECI throughout the document to avoid confusion.
- App5 - §1.6: It is not included in NPA 2014-07 (A) because it only covers the MET.TR rules, not the MET.OR rules.
- App5: The references are aligned with the CRD version of the MET.OR rules.
- MET.TR.230(b): Correct. This was a last minute change in the NPA version.
- AMC1 MET.TR.230(c)(1): Correct and now changed accordingly.
- App5 - Note: This Note is deleted not because of the requirement in ICAO Annex 11 but because the issuing of TREND forecasts appended to local routine reports does not reflect a current practice in Europe.
- App5: Correct. This was a last minute change in the NPA version.
- GM1 MET.TR.215: It is included on page 52 of the NPA.
- Table A5-2: Correct.
- MET.TR.205(c): Noted.
- MET.TR.210(c): Noted.
- App6 - §5 & §6: The references are aligned with the CRD version of the MET.OR rules.
- App6 - §5 & §6: The title is aligned with the CRD version of the MET.OR rules.
- App6 - Note to §6.1: The correct reference is GM1 MET.TR.240(e)
- AMC2 MET.TR.240(a): The interpretation of the comment is correct.
- AMC1 MET.TR.240(c): There is no inconsistency as both provisions relate to different warnings. Furthermore, the one for aerodrome warnings specifies the use of English plain language in the case no ICAO abbreviations are available whereas the second one on wind shear warnings does not foresee this case.
- AMC 1 MET.TR.220(e)(1) & (2): The ICAO Appendix 1 is now transposed in the text.
- GM1 MET.TR.220 (g): Noted.



- App10 - §1: No, these requirements are not related strictly to MET providers so they are not transposed.

comment

6

comment by: *Austro Control*Attachment [#4](#)

response

Noted

- Met. TR : Area forecast for low-level flights: Not accepted as the added value of the proposed addition is not understood. The text is based on ICAO Annex 3. The Agency considers that any change of that kind, with no certainty on the possible impact, should be assessed in a more broader forum and find an acceptable consensus.
- Forecast for take-off: Not accepted; however, the issue is understood. The text is based on ICAO Annex 3. The Agency considers that any change of that kind, with no certainty on the possible impact, should be assessed in a more broader forum and find an acceptable consensus.
- Meteorological Authority: Not accepted. The term 'meteorological authority' is a term used within the ICAO framework and covers very different entities. By using the term 'meteorological authority' ICAO Annex 3 does not distinguish between the roles of regulator/oversight and service provision while this division of responsibilities needs to be clear in European Union regulations. For the transposition of ICAO Annex 3 into EU law, the Agency had to take, each time, the decision whether this term would, in the EU context, be an ANSP or the competent authority/NSA. This decision was made on a case-by-case basis, depending on if the 'meteorological authority' — in ICAO Annex 3 — was meant to be the service provider or the national supervisory authority or even the CAA itself.
- Aerodrome Meteorological Office: Partially accepted. The definition has been amended as follows: "Aerodrome meteorological office' means an office providing meteorological service for aerodromes. An aerodrome is always serving air navigation."
- Semi-automatic observation: Not accepted. The Agency does not agree with the removal of the notion and, therefore, definition of semi-automatic observing system. The Regulation differentiates between semi-automatic and (fully-) automatic observing systems to observe/measure and disseminate meteorological elements. To observe/measure and disseminate meteorological elements without using one of these two systems, an option provided by ICAO Annex 3, is not enabled by the proposed draft regulation. Moreover, the Regulation needs to differentiate between semi-automatic and (fully-) automatic observing since different rules apply per type of system implemented. To clearly separate between the three globally available modes of operations, whilst two are only enabled in the Regulation, the notion 'semi-automatic observing system' is required. The terminology is used in and fully in line



with ICAO and WMO material.

- Special air-reports: Not accepted. The comment is understood but the definition follows ICAO Annex 3. The Agency does not see any added value in modifying the definition at this stage.
- MET.TR.265(c): The Agency could not identify the editorial mistake on page 22 (which is not MET.TR.265) nor in MET.TR.265(c). All editorial mistakes will be removed with the final revised text version.
- General: Not accepted. WAFC and VAACS provide services to European users and, therefore, made intrinsic part of EU-Regulation in addition to the global responsibility of the relevant centres in the SES footprint. For consistency, the TCACs were included.
- MET.TR.250(c)(2): a) The clause 'States in a position to do so' is now reflected in the rules in the form of AMC so to avoid forcing Member States to have to comply at this stage. b) Not accepted. GML is the agreed standard for digital exchange of METAR, SPECI, TAF and SIGMET and referenced in the regulation without indicating the markup language, XML. A specific guidance material is added to the revised text to explain why only GML is used in MET rules.
- MET.TR.255(c)(3): Not accepted. The Agency takes note of the comment. However, this AMC transposes Recommendation 4.3.3.2 of Appendix 3 ICAO Annex 3 and not a standard.
- Exchange of air-reports: Noted. The Regulation covers the European obligations but does not preclude global obligations.
- MET.TR.220(c)1.1.2: The Agency could not find the reference to 'digital' in MET.TR.(c) nor on page 118 of the NPA pdf text. Therefore, no answer could be provided here; however, this issue is still open if needed by Austria.
- (K): The Agency takes note of the comment.
- MET.TR.220(f)(3): Noted. However, the Agency has transposed 9.1.6 of chapter 9 with no change.
- SIGMET Sequence number: Accepted. The Agency proposes to delete the reference to 'independent of SIGMET type' and to specify the different types, header and character number that a SIGMET message should contain, and proposes two additional Acceptable Means of Compliance. Please see MET.TR.205 and the related AMCs to it. The Agency hopes that this will clarify the intent of ICAO Annex 3 provision.
- Use of XML/GML: Noted. GML is the agreed standard for digital exchange of METAR, SPECI, TAF and SIGMET and referenced in the regulation without indicating the markup language, XML. A specific Guidance Material is added to the revised text to explain why only GML is used in MET rules.
- MET.TR.235: Noted. However, the Agency considers that the Austrian comments is not a clear interpretation from the existing text of ICAO Annex 3.
- 6.2.5: Accepted to reintroduce this text in Guidance Material in the new



	<p>GM2 MET.TR.240(e).</p> <ul style="list-style-type: none"> — 2 Exchange of aer. Climate info: Accepted. The text of point 2 of appendix 7 is now included in AMC2 MET.OR.255. — AMC1 MET.TR.220(a): Accepted and changed in the revised text. — 6.1: not accepted. This is considered as being internal arrangements between MET providers, which should not be regulated. — Bottom of page, 2nd para: Not accepted. The text is not transposed because the obligation is not on the MET service provider. — Required transit times: Accepted. The recommendation related to 1.1 of Appendix 10 is transposed to AMC1 to MET.OR.110. 	
comment	<p>7</p> <p>p21</p> <p>STRONG DISAGREEMENT</p> <p>Removing the sections on State Volcano Observatories – Annex 3 – 3.6 and Appendix 2-4. and spreading the information into other sections of NPA 2014-07 only obfuscates.</p> <p>SVO has among other things the responsibility to determine the height of the ash column/plume – the source term for the VAAC model and report that height to everyone else. The first two VA SIGMETs for an erupting volcano are not based on info from the VAAC but from the SVO and MWO. AMD76 added items of responsibilities to SVO, see p. XIX-XX Annex 3.</p> <p>IMO suggests incorporating the sections on SVO in Annex 3 directly into the document.</p>	comment by: <i>IMO</i>
response	<p><i>Not accepted</i></p> <p>Volcano observatories are not considered as being meteorological providers according to the proposed notion of service provider in EASA rules. Furthermore, they do not provide meteorological information as such.</p>	
comment	<p>8</p> <p>MET.TR.205(b) p 152</p> <p>SIGMET numbering - MET.TR.205 SIGMET messages justification</p> <p>STRONG DISAGREEMENT</p> <p>– issuing SIGMET by letter+numbers by is very helpful to operators – EG. TS in S-Finland and MTW in S-Norway (same FAB) get numbers A01 and B01 – local operators (which are users too) in Norway do not care about TS in Finland and vice versa and only have to search for SIGMET with the letter A or B.</p> <p>It is simpler also for the forecaster to work with letter+numbers.</p>	comment by: <i>IMO</i>



As the FABs get larger this will be more common that there will many SIGMETs valid at the same time – and if there is only a single number sequence then the local operator will have to read through a ton of SIGMETs, irrelevant to their area. Unless you are aiming to move everything to a visual display only really, really soon. Also inquiries afterwards are made simpler by separating the SIGMETs.

"A pilot does not differentiate between the SIGMET types and could be confused ..." Actually pilots/operators do differentiate between SIGMETs. Local Icelandic operator might be OK with a high level TURB SIGMET over Iceland and a transatlantic jet pilot is not very concerned with a low level TURB SIGMET over NW-Iceland. IMO has used the letter+number for many years and is not aware of pilots complaining about it.

response

Accepted

The Agency proposes to delete the reference to 'independent of SIGMET type' and to specify the different types, header and character number that a SIGMET message should contain. Additionally, it proposes two additional AMCs. Please see MET.TR.205 and the related AMCs to it. The Agency hopes that this will clarify the intent of the ICAO Annex 3 provision.

comment

9

comment by: IMO

AMC1 MET.TR.220(g) Aerodrome forecasts (TAF)
page 133

The number of change and probability groups should be kept to a minimum.
Annex 3: The number of change and probability groups should be kept to a minimum. **and should not normally exceed five groups.**

The justification "The reference to the 'five groups' is considered not to be current practice in Europe and is therefore removed." is not a very good reason in itself.
Current practice might just be bad practice!

IMO uses this rule and it is a good thing to quantify what normally is – and then the forecasters can aim for that.
In a QMS system how does one define minimum number of changes? By quantifying it.

Suggestion - keep the Annex 3 wording about five groups.

response

Not accepted

The reason not to transpose the last sentence 'and should not normally exceed five groups' is that 'should be kept to a minimum' is considered to be sufficient in itself because the term 'normally' is not measurable.

comment

16

comment by: CAA-Norway

MET.TR.250 (c) (1)
Meteorological report
and other information

SPECI code is deleted, there should be an opportunity to issue SPECI still METAR is issued at half-hourly intervals. Due to hazard weather situation this can be significant of safety in some States



	with winter conditions e.g.		
response	<p><i>Not accepted</i></p> <p>The draft rules do not require the issuance of SPECI in Europe and international dissemination when half-hourly METARs are issued. This approach is in line with ICAO Annex 3 and the EUR ANP. However, the rules do not forbid to issue SPECI, for instance in the case only hourly METARs are issued. SPECI may still be issued then. It is the decision of each State, in agreement with its provider, to decide if, in that case, SPECI shall be issued or not for national dissemination.</p>		
comment	<p>17 comment by: CAA-Norway</p>		
	<table border="1"> <tr> <td>MET TR.220 (f) (4) Aerodrome forecast</td><td>BECMG – Unclear if it is allowed to exceed 2 hours “<i>The time period shall not exceed 2 hours but in any case shall not exceed 4 hours</i>”</td></tr> </table>	MET TR.220 (f) (4) Aerodrome forecast	BECMG – Unclear if it is allowed to exceed 2 hours “ <i>The time period shall not exceed 2 hours but in any case shall not exceed 4 hours</i> ”
MET TR.220 (f) (4) Aerodrome forecast	BECMG – Unclear if it is allowed to exceed 2 hours “ <i>The time period shall not exceed 2 hours but in any case shall not exceed 4 hours</i> ”		
response	<p><i>Accepted</i></p> <p>The text which was published with NPA 2014-07 is the following:</p> <p>‘The change indicator ‘BECMG’ and the associated time group shall be used to describe changes where the meteorological conditions are expected to reach or pass through specified threshold values at a regular or irregular rate and at an unspecified time during the time period. The time period shall not exceed 4 hours.’ Therefore, the Agency considers that the comment for Norway is taken into consideration.</p>		
comment	<p>18 comment by: CAA-Norway</p>		
	<table border="1"> <tr> <td>MET TR.225 (c) (7) Use of change indicators in trend forecasts</td><td>Change groups BECMG and TEMPO in trend shall be given a specific time group (FM, TL or AT). This is not done today in the trend since it is only a 2 hours forecast. We recommend that it change from shall to should – if a specific time group is required.</td></tr> </table>	MET TR.225 (c) (7) Use of change indicators in trend forecasts	Change groups BECMG and TEMPO in trend shall be given a specific time group (FM, TL or AT). This is not done today in the trend since it is only a 2 hours forecast. We recommend that it change from shall to should – if a specific time group is required.
MET TR.225 (c) (7) Use of change indicators in trend forecasts	Change groups BECMG and TEMPO in trend shall be given a specific time group (FM, TL or AT). This is not done today in the trend since it is only a 2 hours forecast. We recommend that it change from shall to should – if a specific time group is required.		



response

Noted

The proposal is already covered in AMC1 MET.TR.230(c)(7)(ii):

- (a) When the change is forecast to begin and end wholly within the trend forecast period, the beginning and end of the change should be indicated by using the abbreviations 'FM' and 'TL', respectively, with their associated time groups.
- (b) When the change is forecast to commence at the beginning of the trend forecast period but be completed before the end of that period, the abbreviation 'FM' and its associated time group should be omitted and only 'TL' and its associated time group should be used.
- (c) When the change is forecast to begin during the trend forecast period and be completed at the end of that period, the abbreviation 'TL' and its associated time group should be omitted and only 'FM' and its associated time group should be used.
- (d) When the change is forecast to occur at a specified time during the trend forecast period, the abbreviation 'AT' followed by its associated time group should be used.
- (e) When the change is forecast to commence at the beginning of the trend forecast period and be completed by the end of that period, or when the change is forecast to occur within the trend forecast period but the time is uncertain, the abbreviations 'FM', 'TL' or 'AT' and their associated time groups should be omitted and the change indicator 'BECMG' should be used alone.'

comment

20

comment by: *BCAA*

p 23/217 App 2 - §1.2.1 MET.TR.265(b) wrong justification : "transposed with no changes" should read "transposed with no change - editorial amendments only"

response

Accepted

Accepted and changed accordingly.

comment

21

comment by: *BCAA*

p 46/217 App3 - §2.3.1.e : wrong reference included in the justification : "This deleted sentence is added as guidance material to (e) above" should read as "this deleted sentence is added as guidance material to (5) above"

response

Accepted

	Accepted and changed accordingly.
comment	<p>22 comment by: BCAA</p> <p>p 57/217 App3 - §4.1.4 wrong justification: should read "Not transposed as it is already covered in MET.TR.255 (a) (3)" rather than "Not transposed as it is already covered in MET.TR.255(a)"</p>
response	<p><i>Accepted</i></p> <p>Accepted and changed accordingly.</p>
comment	<p>23 comment by: BCAA</p> <p>p 81/217 App3 - §4.4.2.7 : AMC2 MET.TR.252(d)(3) "This recommendation is amended as this paragraph is not applicable to METAR." In justification should be added : "No SPECI used in Europe."</p>
response	<p><i>Accepted</i></p> <p>Accepted and changed accordingly.</p>
comment	<p>24 comment by: BCAA</p> <p>p 94/217 App3 - §4.8.1.1 : AMC2 MET.TR.250(a)(12) "Transposed with no change. Editorial changes only" In the justification "No SPECI used in Europe" should be added</p>
response	<p><i>Accepted</i></p> <p>Accepted and changed accordingly.</p>
comment	<p>25 comment by: BCAA</p> <p>p 96/217 App3 - §4.8.1.3 : AMC 2 MET.TR.252 (d)(1) "Transposed with no change. Reference changes only." In the justification "No SPECI used in Europe" should be added.</p>
response	<p><i>Accepted</i></p> <p>Accepted and changed accordingly.</p>
comment	<p>27 comment by: BCAA</p> <p>p 109/217 App4 - §2.2 : 2.2 wind direction strike through : "covered under the relevant set of rules" : which set of rules is referred to ? RMT 0524 or SERA or other rule ?</p>
response	<p><i>Noted</i></p> <p>These requirements are expected to be covered under the data link operations rulemaking task.</p>



comment	28	comment by: BCAA
	p 133/217 GM1 MET.OR.220(a) : In the justification : "This standard is downgraded at the level of is considered more ... " : there is a editorial hiccup.	
response	<p><i>Noted</i></p> <p>Corrected.</p>	
comment	29	comment by: BCAA
	p 135/217 2.2.1 (c) : "Editorial change only" => It is the deletion of a requirement. The reason why to be added.	
response	<p><i>Noted</i></p> <p>The deleted sentence is redundant as the elements are listed in the sentence just before. Therefore, there are no other elements than those listed that need to be taken into account here.</p>	
comment	30	comment by: BCAA
	p 145/217 AMC1 MET.TR.226 : Justification is not entirely correct: "the meteorological authority is considered to be in this case the meteorological provider" should read as "the meteorological authority is considered to be in this case the aerodrome meteorological office"	
response	<p><i>Accepted</i></p> <p>Accepted and changed accordingly.</p>	
comment	31	comment by: BCAA
	p 148/217 GM1 MET.TR.215 : Justification is not entirely correct : "Transposed with no change" should read "Transposed with no change - editorial amendments only."	
response	<p><i>Accepted</i></p> <p>Accepted and changed accordingly.</p>	
comment	32	comment by: BCAA
	p 150/217 : Table A5-3 : The justification should be slightly adapted : "not transposed as it is not covered under this NPA" should read as "currently not transposed" (see justification on page 145/217 regarding App5 - §4)	
response	<p><i>Accepted</i></p> <p>Accepted and changed accordingly.</p>	



comment	33	comment by: BCAA
	p.151/217 : Example A5-3 : The justification should be slightly adapted: "not transposed as it is not covered under this NPA." should read as "currently not transposed." (see justification on page 145/217 regarding App5 - §4)	
response	<p><i>Accepted</i></p> <p>Accepted and changed accordingly.</p>	
comment	34	comment by: BCAA
	p 152/217 : MET.TR.205 Wrong justification: "N/A" to be replaced by "editorial change only"	
response	<p><i>Accepted</i></p> <p>Accepted and changed accordingly.</p>	
comment	35	comment by: BCAA
	p 153/217 App6 - §1.1.4 MET.TR.205 (c) : Slightly incorrect justification : "Transposed with no change" should read as "Transposed with no change - editorial amendments only"	
response	<p><i>Accepted</i></p> <p>Accepted and changed accordingly.</p>	
comment	36	comment by: BCAA
	p 157/217 App6 - §1.2.2 GM2 MET.OR.205(a) : Typo in justification: "that" should read as "than"	
response	<p><i>Accepted</i></p> <p>Accepted and changed accordingly.</p>	
comment	37	comment by: BCAA
	p 158/217 App6 - §2.1.3 GM1 MET.TR.210 (b) : Typo in justification: "that" should read as "than"	
response	<p><i>Accepted</i></p> <p>Accepted and changed accordingly.</p>	
comment	38	comment by: BCAA
	p 161/217 App6 - §3 : Typo in justification: "link" should read as "linked"	



response	<p><i>Accepted</i></p> <p>Accepted and changed accordingly.</p>	
comment	39	comment by: BCAA
	p 162/217 App6 - §3.1 & §3.2 : Question for clarification: The current data link services IR (EC 29/2009) does not take these requirements on board. Where are these requirements covered ?	
response	<p><i>Noted</i></p> <p>These requirements are expected to be covered under the data link operations rulemaking task.</p>	
comment	40	comment by: BCAA
	p 167/217 App6 - §5.1.1 MET.TR.235 : Typo in justification: "delete" should read "deleted"	
response	<p><i>Accepted</i></p> <p>Accepted and changed accordingly.</p>	
comment	41	comment by: BCAA
	p 167/217 App6 - §5.1.2 MET.TR.235 : Wrong justification: "the deleted text is considered as redundant and not applicable in EU context" should be replaced by "Transposed with editorial changes only."	
response	<p><i>Accepted</i></p> <p>Accepted and changed accordingly.</p>	
comment	42	comment by: BCAA
	p 172/217 App6 - §6.2.1 MET.TR.235 : Typo in justification: "delete" should read "deleted"	
response	<p><i>Accepted</i></p> <p>Accepted and changed accordingly.</p>	
comment	43	comment by: BCAA
	p 174/217 App6 - §6.2.7 MET.TR.235 : "Transposed with no change. Editorial changes only." Add in justification "the meteorological authority is in this case the aerodrome meteorological office"	
response	<p><i>Accepted</i></p>	



Accepted and changed accordingly.

comment	44	comment by: BCAA
	p 179/217 App7 - §2. : we agree with the statement in the justification ("This paragraph is not transposed as it reflects responsibilities to be ensured by operators and the users and not on meteorological providers") but where will these requirements be transposed to put them on the operators and users ? Is it transposed via EU OPS regulation or ADQ IR regulation or somewhere else ? If not, do we need to declare variances with ICAO ?	
response	<p><i>Noted</i></p> <p>Please note that this is not a standard but only a recommendation that reflects what operators and users should do to get the relevant climatological information. This text is, therefore, seen more as information material that a rule per se. For information, the OPS rules do not require that operators apply for such information to a MET provider directly but only require that they get MET information for the preparation of their flight.</p>	
comment	45	comment by: BCAA
	p 180/217 App7 - §3.1.2 AMC5 MET.TR.220 (i) Add in justification "editorial amendments only"	
response	<p><i>Accepted</i></p> <p>Accepted and changed accordingly.</p>	
comment	46	comment by: BCAA
	p.184/217 App8 - §2.1 + note + §2.2 : "not transposed as it is already covered by Appendix 2" + "already transposed elsewhere in the rules" : Justification should be improved by adding the reference to the relevant OR/TR/AMC/GM/ or other regulatory reference like an ICAO Annex/Appendix or European Regulation/Implementing rule.	
response	<p><i>Accepted</i></p> <p>Accepted and changed accordingly.</p>	
comment	47	comment by: BCAA
	p 185/217 App8 - §3.1 "operations personnel concerned" : also to be strikethrough (in left column)	
response	<p><i>Accepted</i></p> <p>Accepted and changed accordingly.</p>	
comment	48	comment by: BCAA



response	<p>p 192/217 App8 - §5.1 : "Not transposed as it is already covered in 1.1.f)" : which 1.1.f) ? Justification needs to be a bit more detailed - 1.1.f) : it should be added that it concerns 1.1.f) of this (i.e. App8) ICAO Appendix.</p> <p><i>Accepted</i></p>
comment	<p>49 comment by: BCAA</p>
response	<p>p 194/217 App8 - §6.2 : "Not transposed as it is already covered by MET.OR.110 (b)" : Check the reference in the justification because MET.OR.110 (b) is dealing with timeliness requirement and this is not what is described by 6.2 of ICAO.</p> <p><i>Accepted</i></p> <p>The correct reference is MET.OR.245.</p>
comment	<p>50 comment by: BCAA</p>
response	<p>p 196-197-198-199-200/217 App9 - §1 : "covered by MET.OR.provisions" : Further references and more details to be added to justification: which OR provisions are relevant?</p> <p><i>Accepted</i></p> <p>Detailed references will be given in the consolidated drafting document that will be published at a later stage.</p>
comment	<p>51 comment by: BCAA</p>
response	<p>p 206/217 App9 - §3.1 AMC1 MET.OR.220 (f) : "This paragraph is not transposed as it is already covered by 220 (f) and 250 (b) (3)" : is it MET.OR or MET. TR ? More details to be added to justification: are OR or TR provisions referred to?</p> <p><i>Accepted</i></p> <p>Accepted and added. The references are those of MET.TR.</p>
comment	<p>52 comment by: BCAA</p>
response	<p>p 206/217 App9 - §3.1 AMC1 MET.OR.220 (f) : "Point 2) is not transposed because obligation is not on the MET service provider": Is it transposed via EU OPS regulation or somewhere else ? If not, do we need to declare variances with ICAO ?</p> <p><i>Noted</i></p> <p>The Agency takes into account this consideration and will ensure that all the provisions that are not transposed are reflected in other parts of EU rules.</p>
comment	<p>53 comment by: BCAA</p>
	<p>p 207/217 App10 - §1 : "this point 1 is not transpose as it is ... " Typo in justification:</p>



response	<p>"transpose" should read as "transposed"</p> <p><i>Accepted</i></p> <p>Accepted and changed accordingly.</p>
comment	<p>54 comment by: BCAA</p> <p>p 210/217 App10 - §2.1.3 MET.TR.115 (a) : "The deleted text is considered redundant." Consider adding "and the communication and exchange are out of scope" to the justification</p>
response	<p><i>Accepted</i></p> <p>Accepted and changed accordingly.</p>
comment	<p>55 comment by: BCAA</p> <p>p 213-214-215/217 App10 - §3 : The current data link services IR (EC 29/2009) does not take these requirements on board. Where are these covered ? How to transpose temporarily ? Only nationally or declare variance to ICAO ?</p>
response	<p><i>Noted</i></p> <p>The Agency takes into account this consideration and will ensure that all the provisions that are not transposed are reflected in other parts of EU rules.</p>
comment	<p>57 comment by: ATC the Netherlands</p> <p>Page 43: In NPA 2014_07 (B) at MET.TR.250 (c) (2) the remark states: XML is not used for meteorological reports. However, at (page 119) MET.TR.220 (c) about TAF, XML is again mentioned as an option. Because GML is an extension of XML, it is not necessary to skip the use of XML as an option</p>
response	<p><i>Noted</i></p> <p>The reference to XML is now deleted in the revised text.</p> <p>GML is the agreed standard for digital exchange of METAR, SPECI, TAF and SIGMET and referenced in the regulation without indicating the markup language, XML. A specific GM is added to the revised text to explain why only GML is used in MET rules.</p>
comment	<p>59 comment by: BAF-M.Jancokova</p> <p>Part B</p> <ul style="list-style-type: none"> - Page 15 ,<i>Minimum sector altitude</i>": Has to be contained in the Regulation. - Page 17 Quality assurance: '<i>Is not part of met rules</i>': The MET Provider has to be certified according to the SES Legislation therefore the requirement of Quality assurance has to be contained - Page 34 '<i>State Volcano Observation</i>': See our comment on Part A Page 16. - Page 43 MET.TR.250(c)(2): '<i>XML ist not used for meteorological report</i>' : XML has to be



response

included as it is used for meteorological reports.

- Page 57 MET.TR.255(a)(2): Justification/reason for changes is not correct. SPECIs are displayed in ATS Units.

- Page 165 (3): Meaning of the acronym EDR (Eddy Dissipation Rate) is missing

Noted

- ‘Minimum sector altitude’ — The following definition is now included and is the one from ICAO Annex 3: ‘The lowest altitude which may be used which will provide a minimum clearance of 300 m (1 000 ft) above all objects located in an area contained within a sector of a circle of 46 km (25 NM) radius centred on a radio aid to navigation.’
- The quality management requirements applicable for all service providers can be found in Annex III of the draft regulation on ATM/ANS (CRD to NPA 2013-08).
- ‘State Volcano Observation’: Not accepted. Volcano observatories are not considered as being meteorological providers according to the proposed notion of service provider in EASA rules. Furthermore, they do not provide meteorological information as such.
- Not accepted. GML is the agreed standard for digital exchange of METAR, SPECI, TAF and SIGMET and referenced in the regulation without indicating the markup language, XML. A specific Guidance Material is added to the revised text to explain why only GML is used in MET rules.
- MET.TR.255(a)(2): The Agency could not find the reference to display in MET.TR.255(a)(2). Please advise.
- EDR: Accepted and included in the revised list of abbreviations.

