European Aviation Safety Agency — Rulemaking Directorate

Notice of Proposed Amendment 2014-07 (B)

Technical requirements and operational procedures for the provision of meteorological services

Drafting document table

RMT.0473 & RMT.0474 — 28.3.2014

EXECUTIVE SUMMARY

This Notice of Proposed Amendment (NPA) contains the drafting document table developed for the purpose of traceability of the transposition of ICAO Annex 3, Part II (Appendices and Attachments) into the proposed draft rule.

The drafting document table comprises four columns:

The first column contains the latest ICAO Annex 3, Part II, provisions and the changes (or not) made to them (changes are identified in track changes).

The second column provides the justification/reasons for the changes made to the provisions of ICAO Annex 3, Part II.

The third column shows the resulting text as published in NPA 2014-07 (A).

The fourth column identifies the relevant Part (MET.OR, MET.TR, Regulation (EC) No 216/2008 (the Basic Regulation), SES Regulations, etc.) where the rule text is contained.

INSTRUCTIONS ON HOW TO COMMENT ON NPA 2014-07 (B)

Please select this segment in order to submit your comments on NPA 2014-07 (B).

You are kindly requested to indicate clearly the *applicable page number* and *paragraph/table you are commenting on*.

Pp. 2–22 contain the 'Definitions', and pp. 22–217 contain the 'Technical provisions' of ICAO Annex 3, Part II (in track changes).

Please refer to the PDF version of the NPA 2014-07 (B), which is available on the EASA website and in the Comment-Response Tool (CRT).

Applicability	
Affected regulations and decisions:	Commission Implementing Regulation (EU) No 1035/2011
Affected stakeholders:	Member States; competent authorities/national supervisory authorities; meteorological service providers; EASA
Driver/origin:	Legal obligation (Regulation (EC) No 216/2008 and ICAO SARPs)
Reference:	N/A

Process map	
Concept Paper:	No
Terms of Reference:	30.7.2012
Rulemaking group:	Yes
RIA type:	N/A
Technical consultation during NPA drafting:	No
Duration of NPA consultation:	3 months
Review group:	TBD
Focussed consultation:	TBD
Publication date of the Opinion:	2014/Q4
Publication date of the Decision:	2014/Q4

ICAO Annex 3, Part II	Justification/reason for changes	Proposed NPA 2014-07 (A) text	Relevant Part
This column shows the latest text version of ICAO Annex 3, edition 18 (includes Amendment 76). *Track changes identify the changes made to ICAO Annex 3.*	*This column explains the reason why the text of ICAO Annex 3 was amended.* *If no change is made, it is identified as 'transposed with no change'.*	*This column shows the clean text that is reproduced in NPA 2014-07 (A).*	*This column identifies the Part where the text is contained.*
~~**Chapter 1. Definitions**~~	---	---	---
~~**1.1 Definitions**~~	---	---	---
~~***Aerodrome.*** A defined area on land or water (including any buildings, installations and equipment) intended to be used either wholly or in part for the arrival, departure and surface movement of aircraft.~~	The definition of aerodrome is already contained in Article 3(m) of Regulation (EC) No 216/2008.	---	Basic Regulation
Aerodrome climatological summary. Concise summary of specified meteorological elements at an aerodrome, based on statistical data.	No change	***Aerodrome climatological summary.*** Concise summary of specified meteorological elements at an aerodrome, based on statistical data.	MET.TR
Aerodrome climatological table. Table providing statistical data on the observed occurrence of one or more meteorological elements at an aerodrome.	No change	***Aerodrome climatological table.*** Table providing statistical data on the observed occurrence of one or more meteorological elements at an aerodrome.	MET.TR

ICAO Annex 3, Part II	Justification/reason for changes	Proposed NPA 2014-07 (A) text	Relevant Part
~~***Aerodrome control tower.*** A unit established to provide air traffic control service to aerodrome traffic.~~	This term is not used in this NPA as the related provisions have not been transposed.	---	---
Aerodrome elevation. The elevation of the highest point of the landing area.	No change	***Aerodrome elevation.*** The elevation of the highest point of the landing area.	MET.TR
~~***Aerodrome meteorological office.*** An office, located at an aerodrome, designated to provide meteorological service for international air navigation.~~	This term is defined below under "meteorological office".	---	MET.TR
Aerodrome reference point. The designated geographical location of an aerodrome.	No change	***Aerodrome reference point.*** The designated geographical location of an aerodrome.	MET.TR
---		**Aerodrome warning** Information issued by an aerodrome meteorological office concerning the occurrence or expected occurrence of meteorological conditions which could adversely affect aircraft on the ground, including parked aircraft and the aerodrome facilities and services.	MET.TR
Aeronautical fixed service (AFS). A telecommunication service between specified fixed points provided primarily for the safety of air navigation and for the regular, efficient and	No change	***Aeronautical fixed service (AFS).*** A telecommunication service between specified fixed points provided primarily for the safety of air navigation and for the	MET.TR

ICAO Annex 3, Part II	Justification/reason for changes	Proposed NPA 2014-07 (A) text	Relevant Part
economical operation of air services.		regular, efficient and economical operation of air services.	
Aeronautical fixed telecommunication network (AFTN). A worldwide system of aeronautical fixed circuits provided, as part of the aeronautical fixed service, for the exchange of messages and/or digital data between aeronautical fixed stations having the same or compatible communications characteristics.	No change	***Aeronautical fixed telecommunication network (AFTN).*** A worldwide system of aeronautical fixed circuits provided, as part of the aeronautical fixed service, for the exchange of messages and/or digital data between aeronautical fixed stations having the same or compatible communications characteristics.	MET.TR
~~***Aeronautical meteorological station.*** A station designated to make observations and meteorological reports for use in international air navigation.~~	This term is already used in article 2 of NPA 2013-08 (where MET.OR is contained)	---	MET.OR
~~***Aeronautical mobile service (RR S1.32).*** A mobile service between aeronautical stations and aircraft stations, or between aircraft stations, in which survival craft stations may participate; emergency position-indicating radio beacon stations may also participate in this service on designated distress and emergency frequencies.~~	This term is not transposed as it is not used in the MET rules.	---	---
~~***Aeronautical telecommunication station.*** A station in the aeronautical telecommunication service.~~	This term is not transposed as it is not used in the MET rules.	---	---

ICAO Annex 3, Part II	Justification/reason for changes	Proposed NPA 2014-07 (A) text	Relevant Part
~~***Aircraft.*** Any machine that can derive support in the atmosphere from the reactions of the air other than the reactions of the air against the earth's surface.~~	This term is already used in article 2 of NPA 2013-08 (where MET.OR is contained)	---	MET.OR
~~***Aircraft observation.*** The evaluation of one or more meteorological elements made from an aircraft in flight.~~	This term is not transposed as it is not used in the MET rules.	---	---
~~***AIRMET information.*** Information issued by a meteorological watch office concerning the occurrence or expected occurrence of specified en-route weather phenomena which may affect the safety of low-level aircraft operations and which was not already included in the forecast issued for low-level flights in the flight information region concerned or sub-area thereof.~~	This term is already used in article 2 of NPA 2013-08 (where MET.OR is contained)	---	MET.OR
Air-report. A report from an aircraft in flight prepared in conformity with requirements for position, and operational and/or meteorological reporting.	No change.	***Air-report.*** A report from an aircraft in flight prepared in conformity with requirements for position, and operational and/or meteorological reporting.	MET.TR
~~***Air traffic services unit.*** A generic term meaning variously, air traffic control unit, flight information center or air traffic services reporting office.~~	This term is already used in article 2 of NPA 2013-08 (where MET.OR is contained)	---	MET.OR

ICAO Annex 3, Part II	Justification/reason for changes	Proposed NPA 2014-07 (A) text	Relevant Part
Alternate aerodrome. An aerodrome to which an aircraft may proceed when it becomes either impossible or inadvisable to proceed to or to land at the aerodrome of intended landing. Alternate aerodromes include the following: *Take-off alternate.* An alternate aerodrome at which an aircraft can land should this become necessary shortly after takeoff and it is not possible to use the aerodrome of departure. *En-route alternate.* An aerodrome at which an aircraft would be able to land after experiencing an abnormal or emergency condition while en route. *ETOPS en-route alternate.* A suitable and appropriate alternate aerodrome at which an aeroplane would be able to land after experiencing an engine shut-down or other abnormal or emergency condition while en route in an ETOPS operation. *Destination alternate.* An alternate aerodrome to which an aircraft may proceed should it become either impossible or inadvisable to land at the aerodrome of intended landing. ~~*Note.— The aerodrome from which a flight departs may also be an en-route or a destination alternate aerodrome for that flight.*~~	No change. The Note is not part of the definition.	***Alternate aerodrome.*** An aerodrome to which an aircraft may proceed when it becomes either impossible or inadvisable to proceed to or to land at the aerodrome of intended landing. Alternate aerodromes include the following: *Take-off alternate.* An alternate aerodrome at which an aircraft can land should this become necessary shortly after takeoff and it is not possible to use the aerodrome of departure. *En-route alternate.* An aerodrome at which an aircraft would be able to land after experiencing an abnormal or emergency condition while en route. *ETOPS en-route alternate.* A suitable and appropriate alternate aerodrome at which an aeroplane would be able to land after experiencing an engine shut-down or other abnormal or emergency condition while en route in an ETOPS operation. *Destination alternate.* An alternate aerodrome to which an aircraft may proceed should it become either impossible or inadvisable to land at the aerodrome of intended landing.	MET.TR

ICAO Annex 3, Part II	Justification/reason for changes	Proposed NPA 2014-07 (A) text	Relevant Part
~~***Altitude.*** The vertical distance of a level, a point or an object considered as a point, measured from mean sea level (MSL).~~	This term is already used in article 2 of NPA 2013-08 (where MET.OR is contained)	---	MET.OR
~~***Approach control unit.*** A unit established to provide air traffic control service to controlled flights arriving at, or departing from, one or more aerodromes.~~	This term is not transposed as it is not used in the MET rules.	---	---
~~***Appropriate ATS authority.*** The relevant authority designated by the State responsible for providing air traffic services in the airspace concerned.~~	This term is not transposed as it is not used in the MET rules.	---	---
~~***Area control centre.*** A unit established to provide air traffic control service to controlled flights in control areas under its jurisdiction.~~	This term is already used in article 2 of NPA 2013-08 (where MET.OR is contained)	---	MET.OR
---		**Area forecast for low level flights** A forecast of weather phenomena for a flight information region or sub-area thereof, issued to cover the layer below flight level 100 (or below flight level 150 in mountainous areas, or higher, where necessary)	MET.TR
---	Introduction of terms to differentiate between observing systems that require a human in	**Automatic observing system.** An observing and reporting system that measure, derives and reports all required	MET.TR

ICAO Annex 3, Part II	Justification/reason for changes	Proposed NPA 2014-07 (A) text	Relevant Part
	the loop or that function completely autonomous.	elements without human interaction.	
~~***Automatic dependent surveillance (ADS).*** A surveillance technique in which aircraft automatically provide, via a data link, data derived from on-board navigation and position-fixing systems, including aircraft identification, four-dimensional position and additional data as appropriate.~~	This term is not transposed as it is not used in the MET rules.	---	---
~~***Briefing.***Oral commentary on existing and/or expected meteorological conditions.~~	This term is already explained in GM to MET.OR.215(d) of NPA 2013-08	---	MET.OR
Cloud of operational significance. A cloud with the height of cloud base below 1 500 m (5 000 ft) or below the highest minimum sector altitude, whichever is greater, or a cumulonimbus cloud or a towering cumulus cloud at any height.	No change	***Cloud of operational significance.*** A cloud with the height of cloud base below 1 500 m (5 000 ft) or below the highest minimum sector altitude, whichever is greater, or a cumulonimbus cloud or a towering cumulus cloud at any height.	MET.TR
~~***Consultation.*** Discussion with a meteorologist or another qualified person of existing and/or expected meteorological conditions relating to flight operations; a discussion includes answers to questions.~~	This term is already explained in GM to MET.OR.215(d) of NPA 2013-08	---	MET.OR

ICAO Annex 3, Part II	Justification/reason for changes	Proposed NPA 2014-07 (A) text	Relevant Part
~~***Control area.*** A controlled airspace extending upwards from a specified limit above the earth.~~	This term is not transposed as it is not used in the MET rules.	---	---
~~***Cruising level.*** A level maintained during a significant portion of a flight.~~	This term is not transposed as it is not used in the MET rules.	---	---
Elevation. The vertical distance of a point or a level, on or affixed to the surface of the earth, measured from mean sea level.	No change	***Elevation.*** The vertical distance of a point or a level, on or affixed to the surface of the earth, measured from mean sea level.	MET.TR
~~***Extended range operation.*** Any flight by an aeroplane with two turbine power units where the flight time at the one powerunit inoperative cruise speed (in ISA and still air conditions), from a point on the route to an adequate alternate aerodrome, is greater than the threshold time approved by the State of the Operator.~~	This term is not transposed as it is not used in the MET rules.	---	---
~~***Flight crew member.*** A licensed crew member charged with duties essential to the operation of an aircraft during a flight duty period.~~	Not seen necessary to transpose in the MET rules.	~~***Flight crew member.*** A licensed crew member charged with duties essential to the operation of an aircraft during a flight duty period.~~	~~MET.TR~~
~~***Flight documentation.*** Written or printed documents, including charts or forms, containing meteorological information for a flight.~~	This term is already used in article 2 of NPA 2013-08 (where MET.OR is contained)	---	MET.OR
~~***Flight information centre.*** A unit established to provide flight information service and alerting~~	This term is already used in article 2 of NPA 2013-08 (where	---	MET.OR

ICAO Annex 3, Part II	Justification/reason for changes	Proposed NPA 2014-07 (A) text	Relevant Part
~~service.~~	MET.OR is contained)		
Flight information region. An airspace of defined dimensions within which flight information service and alerting service are provided.	No change.	***Flight information region.*** An airspace of defined dimensions within which flight information service and alerting service are provided.	MET.TR
Flight level. A surface of constant atmospheric pressure which is related to a specific pressure datum, 1 013.2 hectopascals (hPa), and is separated from other such surfaces by specific pressure intervals. ~~*Note 1.— A pressure type altimeter calibrated in accordance with the Standard Atmosphere:*~~ ~~*a) when set to a QNH altimeter setting, will indicate altitude;*~~ ~~*b) when set to a QFE altimeter setting, will indicate height above the QFE reference datum;*~~ ~~*c) when set to a pressure of 1 013.2 hPa, may be used to indicate flight levels.*~~ ~~*Note 2.— The terms "height" and "altitude", used in Note 1, indicate altimetric rather than geometric heights and altitudes.*~~	No change. The Notes are not transposed as they are not part of the definition as such	***Flight level.*** A surface of constant atmospheric pressure which is related to a specific pressure datum, 1 013.2 hectopascals (hPa), and is separated from other such surfaces by specific pressure intervals.	MET.TR
~~***Forecast.*** A statement of expected meteorological conditions for a specified time or period, and for a specified area or portion of~~	This term is already used in article 2 of NPA 2013-08 (where MET.OR is contained)	---	MET.OR

ICAO Annex 3, Part II	Justification/reason for changes	Proposed NPA 2014-07 (A) text	Relevant Part
~~airspace.~~			
---		**Forecast for take-off** A forecast for a specified period of time, prepared by an aerodrome meteorological office, which contains information on expected conditions over the runways complex in regard to surface wind direction and speed and any variations thereof, temperature, pressure (QNH), and any other elements as agreed locally.	MET.TR
~~***GAMET area forecast.*** An area forecast in abbreviated plain language for low-level flights for a flight information region or sub-area thereof, prepared by the meteorological office designated by the meteorological authority concerned and exchanged with meteorological offices in adjacent flight information regions, as agreed between the meteorological authorities concerned.~~	This term is not transposed as it is not used in the MET rules.	---	---
Grid point data in digital form. Computer processed meteorological data for a set of regularly spaced points on a chart, for transmission from a meteorological computer to another computer in a code form suitable for automated use.	No change. The Note is not transposed as it is not part of the definition as such.	***Grid point data in digital form.*** Computer processed meteorological data for a set of regularly spaced points on a chart, for transmission from a meteorological computer to another computer in a code form suitable for	MET.TR

ICAO Annex 3, Part II	Justification/reason for changes	Proposed NPA 2014-07 (A) text	Relevant Part
~~*Note. — In most cases, such data are transmitted on medium or high-speed telecommunications channels.*~~		automated use.	
Height. The vertical distance of a level, a point or an object considered as a point, measured from a specified datum.	No change.	***Height.*** The vertical distance of a level, a point or an object considered as a point, measured from a specified datum.	MET.TR
~~***Human Factors principles.*** Principles which apply to aeronautical design, certification, training, operations and maintenance and which seek safe interface between the human and other system components by proper consideration to human performance.~~	This term is not transposed as it is not used in this NPA and will be covered under the new Annex XI to the regulation xxx/201X on Personnel requirements.	---	Annex XI to Regulation xxx amending 1035/2011
~~***International airways volcano watch (IAVW).*** International arrangements for monitoring and providing warnings to aircraft of volcanic ash in the atmosphere.~~ ~~*Note. — The IAVW is based on the cooperation of aviation and non-aviation operational units using information derived from observing sources and networks that are provided by States. The watch is coordinated by ICAO with the cooperation of other concerned international organizations.*~~	This term is not transposed as it is not used in the MET rules.	---	---
---		**Local routine report** A meteorological report issued at fixed time	MET.TR

ICAO Annex 3, Part II	Justification/reason for changes	Proposed NPA 2014-07 (A) text	Relevant Part
		intervals, intended only for dissemination at the aerodrome of origin where the observations were made.	
---		**Local special report** A meteorological report issued in accordance with the criteria established for special observations, intended only for dissemination at the aerodrome of origin where the observations were made.	MET.TR
~~***Level.*** ~~A generic term relating to the vertical position of an aircraft in flight and meaning variously height, altitude or flight level.~~	This term is not transposed as it is used in several different contexts and cannot be used solely for MET.	---	---
~~***Meteorological authority.*** ~~The authority providing or arranging for the provision of meteorological service for international air navigation on behalf of a Contracting State.~~	This term is not transposed as it is not used in the MET rules.	---	---
Meteorological bulletin. A text comprising meteorological information preceded by an appropriate heading.	No change.	***Meteorological bulletin.*** A text comprising meteorological information preceded by an appropriate heading.	MET.TR
~~***Meteorological information.*** ~~Meteorological report, analysis, forecast, and any other statement relating to existing or expected meteorological conditions.~~	This term is already used in article 2 of NPA 2013-08 (where MET.OR is contained)	---	MET.OR

ICAO Annex 3, Part II	Justification/reason for changes	Proposed NPA 2014-07 (A) text	Relevant Part
Aerodrome ~~M~~meteorological office. An office ~~designated to~~ providinge meteorological service for aerodromes serving ~~international~~ air navigation.	The term "designated" is deleted to avoid confusion with the SES designation process. The amendment made reflects the proposal for the amendment of Annex 3 relating to aeronautical meteorology by ICAO as stated in its SL 08/2012. The word "international" is deleted as the European rules also apply to aerodromes serving only in the territory of one Member State.	***Aerodrome meteorological office.*** An office providing meteorological service for aerodromes serving air navigation.	MET.TR
~~***Meteorological office.*** An office designated to monitor meteorological conditions affecting flight operations and to provide information concerning the occurrence or expected occurrence of specified en-route weather phenomena, natural and other hazards which may affect the safety of aircraft operations within a specified area of responsibility~~	This term is already used in article 2 of NPA 2013-08 (where MET.OR is contained)	---	MET.OR
~~***Meteorological report.*** A statement of observed meteorological conditions related to a specified time and location.~~	This term is already used in article 2 of NPA 2013-08 (where MET.OR is contained)	---	MET.OR
~~***Meteorological satellite.*** An artificial Earth satellite making meteorological observations and transmitting these observations to Earth.~~	This term is not transposed as it is not used in the MET rules.	---	---

ICAO Annex 3, Part II	Justification/reason for changes	Proposed NPA 2014-07 (A) text	Relevant Part
~~***Minimum sector altitude.*** 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.~~	This term is not transposed as it is not used in the MET rules.	---	---
~~***Observation (meteorological).*** The evaluation of one or more meteorological elements.~~	This term is already used in article 2 of NPA 2013-08 (where MET.OR is contained)	---	MET.OR
~~***Operational control.*** The exercise of authority over the initiation, continuation, diversion or termination of a flight in the interest of the safety of the aircraft and the regularity and efficiency of the flight.~~	This term is not transposed as it is not used in the MET rules.	---	---
~~***Operational flight plan.*** The operator's plan for the safe conduct of the flight based on considerations of aeroplane performance, other operating limitations and relevant expected conditions on the route to be followed and at the aerodromes concerned.~~	This term is not transposed as it is not used in the MET rules.	---	---
Operational planning. The planning of flight operations by an operator.	No change	***Operational planning.*** The planning of flight operations by an operator.	MET.TR
~~***Operator.*** A person, organization or enterprise engaged in or offering to engage in an aircraft~~	This term is already defined in article 3(h) to Regulation	---	Basic Regulation

ICAO Annex 3, Part II	Justification/reason for changes	Proposed NPA 2014-07 (A) text	Relevant Part
~~operation.~~	216/2008.		
		OPMET Databank A databank established to store internationally operational meteorological information for aeronautical use.	MET.TR
~~***Pilot-in-command.*** The pilot designated by the operator, or in the case of general aviation, the owner, as being in command and charged with the safe conduct of a flight.~~	This term is not transposed as it is not used in the MET rules.	---	---
Prevailing visibility. The greatest visibility value, observed in accordance with the definition of "visibility", which is reached within at least half the horizon circle or within at least half of the surface of the aerodrome. These areas could comprise contiguous or non-contiguous sectors. ~~*Note. — This value may be assessed by human observation and/or instrumented systems. When instruments are installed, they are used to obtain the best estimate of the prevailing visibility.*~~	No change. The Note is not transposed as it is not part of the definition as such.	***Prevailing visibility.*** The greatest visibility value, observed in accordance with the definition of "visibility", which is reached within at least half the horizon circle or within at least half of the surface of the aerodrome. These areas could comprise contiguous or non-contiguous sectors.	MET.TR
Prognostic chart. A forecast of a specified meteorological element(s) for a specified time or period and a specified surface or portion of	No change	***Prognostic chart.*** A forecast of a specified meteorological element(s) for a specified time or period and a specified surface or portion of airspace, depicted graphically on	MET.TR

ICAO Annex 3, Part II	Justification/reason for changes	Proposed NPA 2014-07 (A) text	Relevant Part
airspace, depicted graphically on a chart.		a chart.	
~~***Quality assurance.*** Part of quality management focused on providing confidence that quality requirements will be fulfilled (ISO 9000*).~~	This term is not transposed as it is not used in the MET rules.	---	---
~~***Quality control.*** Part of quality management focused on fulfilling quality requirements (ISO 9000*).~~	This term is not transposed as it is not used in the MET rules.	---	---
~~***Quality management.*** Coordinated activities to direct and control an organization with regard to quality (ISO 9000*).~~	This term is not transposed as it is not used in the MET rules.	---	---
~~***Regional air navigation agreement.*** Agreement approved by the Council of ICAO normally on the advice of a regional air navigation meeting.~~	This term is not transposed as it is not a definition. It only specifies who approves the regional agreement.	---	---
~~***Reporting point.*** A specified geographical location in relation to which the position of an aircraft can be reported.~~	This term is not transposed as it is not used in the MET rules.	---	---
~~***Rescue coordination centre.*** A unit responsible for promoting efficient organization of search and rescue services and for coordinating the conduct of search and rescue~~	This term is already used in article 2 of NPA 2013-08 (where MET.OR is contained)	---	MET.OR

ICAO Annex 3, Part II	Justification/reason for changes	Proposed NPA 2014-07 (A) text	Relevant Part
~~operations within a search and rescue region.~~			
~~***Runway.*** A defined rectangular area on a land aerodrome prepared for the landing and take-off of aircraft.~~	This term is already used in article 2 of NPA 2013-08 (where MET.OR is contained)	---	MET.OR
~~***Runway visual range (RVR).*** The range over which the pilot of an aircraft on the centre line of a runway can see the runway surface markings or the lights delineating the runway or identifying its centre line.~~	This term is already used in article 2 of NPA 2013-08 (where MET.OR is contained)	---	MET.OR
~~***Search and rescue services unit.*** A generic term meaning, as the case may be, rescue coordination centre, rescue sub-centre or alerting post.~~	This term is already used in article 2 of NPA 2013-08 (where MET.OR is contained)	---	MET.OR
---	Introduction of terms to differentiate between observing systems that require a human in the loop or that function completely autonomous.	**Semi-automatic observing system.** An observing system that allows the augmentation of measured elements and requires a human in the loop for issuing the appropriate reports.	MET.TR
~~***SIGMET information.*** Information issued by a meteorological watch office concerning the occurrence or expected occurrence of specified en-route weather phenomena which may affect the safety of aircraft operations.~~	This term is already used in article 2 of NPA 2013-08 (where MET.OR is contained)		MET.OR

ICAO Annex 3, Part II	Justification/reason for changes	Proposed NPA 2014-07 (A) text	Relevant Part
		Routine Air-report A meteorological report issued at fixed time intervals for the routine aircraft observations made during en-route and climb-out phases of the flight.	
---		**Special Air-report** A meteorological report by an aircraft issued in accordance with criteria based on observations made during the flight.	MET.TR
~~***Standard isobaric surface.*** An isobaric surface used on a worldwide basis for representing and analysing the conditions in the atmosphere.~~	This term is not transposed as it is not used in the MET rules.	---	---
TAF. A concise statement of the expected meteorological conditions at an aerodrome for a specified period.	No change	**TAF**. A concise statement of the expected meteorological conditions at an aerodrome for a specified period.	MET.TR
***Threshold*.** The beginning of that portion of the runway usable for landing.	No change	***Threshold*.** The beginning of that portion of the runway usable for landing.	MET.TR
Touchdown zone. The portion of a runway, beyond the threshold, where it is intended landing aeroplanes first contact the runway.	No change	***Touchdown zone.*** The portion of a runway, beyond the threshold, where it is intended landing aeroplanes first contact the runway.	MET.TR
~~***Tropical cyclone.*** Generic term for a non-~~	This term is already used in	---	MET.OR

ICAO Annex 3, Part II	Justification/reason for changes	Proposed NPA 2014-07 (A) text	Relevant Part
~~frontal synoptic-scale cyclone originating over tropical or sub-tropical waters with organized convection and definite cyclonic surface wind circulation.~~	article 2 of NPA 2013-08 (where MET.OR is contained)		
~~***Tropical cyclone advisory centre (TCAC).*** A meteorological centre designated by regional air navigation agreement to provide advisory information to meteorological watch offices, world area forecast centres and international OPMET databanks regarding the position, forecast direction and speed of movement, central pressure and maximum surface wind of tropical cyclones.~~	Already defined in CRD for NPA 2013-08.	---	MET.OR
Upper-air chart. A meteorological chart relating to a specified upper-air surface or layer of the atmosphere.	No change	***Upper-air chart.*** A meteorological chart relating to a specified upper-air surface or layer of the atmosphere.	MET.TR
~~***Visibility.*** Visibility for aeronautical purposes is the greater of:~~ ~~a) the greatest distance at which a black object of suitable dimensions, situated near the ground, can be seen and recognized when observed against a bright background;~~ ~~b) the greatest distance at which lights in the vicinity of 1 000 candelas can be seen and identified against an unlit background.~~	This term is already used in article 2 of NPA 2013-08 (where MET.OR is contained)	---	MET.OR

ICAO Annex 3, Part II	Justification/reason for changes	Proposed NPA 2014-07 (A) text	Relevant Part
~~***Volcanic ash advisory centre (VAAC).*** A meteorological centre designated by regional air navigation agreement to provide advisory information to meteorological watch offices, area control centres, flight information centres, world area forecast centres and international OPMET databanks regarding the lateral and vertical extent and forecast movement of volcanic ash in the atmosphere following volcanic eruptions.~~	This term is already used in article 2 of NPA 2013-08 (where MET.OR is contained)		MET.OR
		Volcano observatory An institution that conducts research and monitoring of a volcano or a group of volcanoes, having the authority to collect and transmit data in real time to an agreed list of recipients.	MET.TR
~~***VOLMET.*** Meteorological information for aircraft in flight.~~ ~~*Data link-VOLMET (D-VOLMET).* Provision of current aerodrome routine meteorological reports (METAR) and aerodrome special meteorological reports (SPECI), aerodrome forecasts (TAF), SIGMET, special air reports not covered by a SIGMET and, where available, AIRMET via data link.~~ ~~*VOLMET broadcast.* Provision, as appropriate, of current METAR, SPECI, TAF and SIGMET by~~	This term is not transposed as it is not used in the MET rules.	---	---

ICAO Annex 3, Part II	Justification/reason for changes	Proposed NPA 2014-07 (A) text	Relevant Part
~~means of continuous and repetitive voice broadcasts.~~			
~~***World area forecast centre (WAFC).*** A meteorological centre designated to prepare and issue significant weather forecasts and upper-air forecasts in digital form on a global basis direct to States by appropriate means as part of the aeronautical fixed service.~~	This term is already used in article 2 of NPA 2013-08 (where MET.OR is contained)		MET.OR
World area forecast system (WAFS). A worldwide system by which world area forecast centres provide aeronautical meteorological en-route forecasts in uniform standardized formats.	No change.	**World area forecast system (WAFS).** A worldwide system by which world area forecast centres provide aeronautical meteorological en-route forecasts in uniform standardized formats.	MET.TR
~~**APPENDIX 2. TECHNICAL SPECIFICATIONS RELATED TO WORLD AREA FORECAST SYSTEM AND METEOROLOGICAL OFFICES**~~	---	---	---
~~**1. WORLD AREA FORECAST SYSTEM**~~ **MET.TR.265 World Area Forecast Centres responsibilities**	---	**MET.TR.265 World Area Forecast Centres responsibilities**	MET.TR
~~**1.1 Formats and codes**~~	---	---	---
MET.TR.265(a) WAFCs shall use GRIB 2 code form ~~adopt uniform formats and codes~~ for the supply of gridded global forecasts~~.~~ and BUFR	Text amended to make a clear split between the BUFR and the	**MET.TR.265 (a)** WAFCs shall use GRIB 2 code form for the supply of gridded global forecasts and BUFR code form for the	MET.TR

ICAO Annex 3, Part II	Justification/reason for changes	Proposed NPA 2014-07 (A) text	Relevant Part
code form for the supply forecast of significant weather phenomena.	GRIB form.	supply forecast of significant weather phenomena.	
~~**1.2 Upper air gridded forecasts**~~	---	**---**	---
~~1.2.1~~ **MET.TR.265(b)** For global gridded forecasts, WAFCs shall: **(1)** ~~T~~prepare ~~he~~ forecasts of upper wind; upper-air temperature; and humidity; direction, speed and flight level of maximum wind; flight level and temperature of tropopause, areas of cumulonimbus clouds, icing, clear-air and in-cloud turbulence, and geopotential altitude of flight levels, ~~shall be prepared~~ four times a day ~~by a WAFC~~ and ~~shall~~ be valid for fixed valid times at 6, 9, 12, 15, 18, 21, 24, 27, 30, 33 and 36 hours after the time (0000, 0600, 1200 and 1800 UTC) of the synoptic data on which the forecasts were based. **(2)** issue~~The dissemination of each~~ forecast ~~shall be~~ in the ~~above~~ order in (1) and ~~shall be~~ complete~~d~~ their dissemination as soon as technically feasible but not later than 6 hours after standard time of observation.	Transposed with no changes.	**MET.TR.265(b)** For global gridded forecasts, WAFCs shall: **(1)** prepare forecasts of upper wind; upper-air temperature; and humidity; direction, speed and flight level of maximum wind; flight level and temperature of tropopause, areas of cumulonimbus clouds, icing, clear-air and in-cloud turbulence, and geopotential altitude of flight levels, four times a day and be valid for fixed valid times at 6, 9, 12, 15, 18, 21, 24, 27, 30, 33 and 36 hours after the time (0000, 0600, 1200 and 1800 UTC) of the synoptic data on which the forecasts were based. **(2)** issue forecast in the order in (1) and complete their dissemination as soon as technically feasible but not later than 6 hours after standard time of observation.	MET.TR
~~1.2.2~~ **(3)** provide ~~The~~ grid point forecasts ~~prepared by a WAFC~~ in a regular grid with a horizontal resolution of 1.25° of latitude and longitude and ~~shall~~ comprising~~e~~:	This text is amended in order to incorporate the text from Appendix 2, 1.2.4.	**(3)** provide grid point forecasts in a regular grid with a horizontal resolution of 1.25° of latitude and longitude and comprising:	MET.TR

ICAO Annex 3, Part II	Justification/reason for changes	Proposed NPA 2014-07 (A) text	Relevant Part
(i) wind ~~and temperature~~ data for flight levels 50 (850 hPa), 100 (700 hPa), 140 (600 hPa), 180 (500 hPa), 240 (400 hPa), 270 (350 hPa), 300 (300 hPa), 320 (275 hPa), 340 (250 hPa), 360 (225 hPa), 390 (200 hPa), 410(175 hPa), 450 (150 hPa) and 530 (100 hPa);	Transposed with no change. (ii) is added to separate wind data and temperature data for flight levels, but the figures remain the same.	**(i)** wind data for flight levels 50 (850 hPa), 100 (700 hPa), 140 (600 hPa), 180 (500 hPa), 240 (400 hPa), 270 (350 hPa), 300 (300 hPa), 320 (275 hPa), 340 (250 hPa), 360 (225 hPa), 390 (200 hPa), 450 (150 hPa) and 530 (100 hPa); **(ii)** temperature data for flight levels 50 (850 hPa), 100 (700 hPa), 140 (600 hPa), 180 (500 hPa), 240 (400 hPa), 270 (350 hPa), 300 (300 hPa), 320 (275 hPa), 340 (250 hPa), 360 (225 hPa), 390 (200 hPa), 410(175 hPa), 450 (150 hPa) and 530 (100 hPa);	MET.TR
~~b) flight level and temperature of tropopause;~~	This text is not transposed as it is already contained in MET.OR.265(a)(1)(iv)	---	---
~~c) direction, speed and flight level of maximum wind;~~	This text is not transposed as it is already contained in MET.OR.265(a)(1)(v)	---	---
(iii)~~d)~~ humidity data for flight levels 50 (850 hPa), 100 (700 hPa), 140 (600 hPa) and 180 (500 hPa);	Transposed with no change.	**(iii)** humidity data for flight levels 50 (850 hPa), 100 (700 hPa), 140 (600 hPa) and 180 (500 hPa);	MET.TR
(iv)~~e)~~ horizontal extent and flight levels of base and top of cumulonimbus clouds;	Transposed with no change.	**(iv)** horizontal extent and flight levels of base and top of cumulonimbus clouds;	MET.TR

ICAO Annex 3, Part II	Justification/reason for changes	Proposed NPA 2014-07 (A) text	Relevant Part
(v)~~f)~~ icing for layers centred at flight levels 60 (800 hPa), 100 (700 hPa), 140 (600 hPa), 180 (500 hPa), 240 (400 hPa) and 300 (300 hPa);	Transposed with no change.	**(v)** icing for layers centred at flight levels 60 (800 hPa), 100 (700 hPa), 140 (600 hPa), 180 (500 hPa), 240 (400 hPa) and 300 (300 hPa);	MET.TR
(vii)~~g)~~ clear-air turbulence for layers centred at flight levels 240 (400 hPa), 270 (350 hPa), 300 (300 hPa), 340 (250 hPa), 390 (200 hPa) and 450 (150 hPa);	Transposed with no change.	**(vi)** clear-air turbulence for layers centred at flight levels 240 (400 hPa), 270 (350 hPa), 300 (300 hPa), 340 (250 hPa), 390 (200 hPa) and 450 (150 hPa);	MET.TR
(vii)~~h)~~ in-cloud turbulence for layers centred at flight levels 100 (700 hPa), 140 (600 hPa), 180 (500 hPa), 240 (400 hPa) and 300 (300 hPa); and	Transposed with no change.	**(vii)** in-cloud turbulence for layers centred at flight levels 100 (700 hPa), 140 (600 hPa), 180 (500 hPa), 240 (400 hPa) and 300 (300 hPa); and	MET.TR
~~Note 1.~~ **GM1 MET.TR.265(b)(3)** **(a)** Layers centred at a flight level referred to in ~~f)~~(v) and ~~h)~~(vii) have a depth of 100 hPa.	Transposed with no change – editorial amendments only	**GM1 MET.TR.265(b)(3)** **(a)** Layers centred at a flight level referred to in (v) and (vii)#2 have a depth of 100 hPa.	MET.TR
~~Note 2.~~ **(b)** Layers centred at a flight level referred to in ~~g)~~(vi) have a depth of 50 hPa.	Transposed with no change – reference amendment only.	**(b)** Layers centred at a flight level referred to in (vi) have a depth of 50 hPa.	MET.TR
~~i)~~**(viii)** geopotential altitude data for flight levels 50 (850 hPa), 100 (700 hPa), 140 (600 hPa), 180 (500 hPa), 240 (400 hPa), 270(350 hPa) 300 (300 hPa), 320 (275 hPa), 340 (250 hPa), 360 (225 hPa), 390 (200 hPa), 410(175 hPa) 450 (150 hPa) and 530 (100 hPa).	Transposed with no change.	**(viii)** geopotential altitude data for flight levels 50 (850 hPa), 100 (700 hPa), 140 (600 hPa), 180 (500 hPa), 240 (400 hPa), 300 (300 hPa), 320 (275 hPa), 340 (250 hPa), 360 (225 hPa), 390 (200 hPa), 450 (150 hPa) and 530 (100 hPa).	MET.TR

ICAO Annex 3, Part II	Justification/reason for changes	Proposed NPA 2014-07 (A) text	Relevant Part
~~1.2.3 The foregoing grid point forecasts shall be issued by a WAFC in binary code form using the GRIB code form prescribed by WMO.~~	This text is not transposed as it is already covered by MET.TR.265(a)	---	---
~~Note.—~~ **GM1 MET.TR.265(a)** The GRIB code form is contained in WMO Publication No. 306, Manual on Codes, Volume I.2, Part B — Binary Codes.	Transposed with no change.	**GM1 MET.TR.265(a)** The GRIB code form is contained in WMO Publication No. 306, Manual on Codes, Volume I.2, Part B — Binary Codes.	
~~1.2.4 The foregoing grid point forecasts shall be prepared by a WAFC in a regular grid with a horizontal resolution of 1.25° of latitude and longitude.~~	This text is not transposed as it is already covered in MET.TR.265(b)(3)	---	---
~~**1.3 Significant weather (SIGWX) forecasts**~~	---	---	---
~~1.3.1 General provisions~~	---	---	---
~~1.3.1.1~~ **MET.TR.265(c)** For global forecasts of significant weather phenomena, WAFCs shall: **(1)** ~~Forecasts of significant en route weather phenomena shall be~~ prepare~~d as~~ SIGWX forecasts four times a day ~~by a WAFC~~ and shall be valid for fixed valid times at 24 hours after the time (0000, 0600, 1200 and 1800 UTC) of the synoptic data on which the forecasts were based. The dissemination of each forecast shall be completed as soon as technically feasible but	The added text provides an introductory sentence to introduce the 4 sub paragraphs.	**MET.TR.265(c)** For global forecasts of significant weather phenomena, WAFCs shall: **(1)** prepare SIGWX forecasts four times a day and shall be valid for fixed valid times at 24 hours after the time (0000, 0600, 1200 and 1800 UTC) of the synoptic data on which the forecasts were based. The dissemination of each forecast shall	MET.TR

ICAO Annex 3, Part II	Justification/reason for changes	Proposed NPA 2014-07 (A) text	Relevant Part
not later than 9 hours after standard time of observation.		be completed as soon as technically feasible but not later than 9 hours after standard time of observation.	
~~1.3.1.2 SIGWX forecasts shall be issued in binary code form using the BUFR code form prescribed by WMO.~~	This text is not transposed as it is already contained in MET.TR265(a)	---	---
~~Note.~~ **GM2 MET.TR.265(a)** The BUFR code form is contained in WMO Publication No. 306, Manual on Codes, Volume I.2, Part B — Binary Codes.	Transposed with no change.	**GM2 MET.TR.265(a)** The BUFR code form is contained in WMO Publication No. 306, Manual on Codes, Volume I.2, Part B — Binary Codes.	MET.TR
~~1.3.2 Types of SIGWX forecasts~~	---	---	---
MET.TR.265 (c) (2) issue SIGWX forecasts ~~shall be issued~~ as high-level SIGWX forecasts for flight levels between 250 and 630.	Transposed with no change.	**MET.TR.265(c)(2)** issue SIGWX forecasts as high-level SIGWX forecasts for flight levels between 250 and 630.	MET.TR
~~Note.~~ **MET.TR.265(d)** Medium-level SIGWX forecasts for flight levels between 100 and 250 for limited geographical areas ~~will~~shall ~~continue to~~ be issued. ~~until such time that flight documentation to be generated from the gridded forecasts of cumulonimbus clouds, icing and turbulence fully meets user requirements.~~	Text amended and upgraded to IR for safety reasons.	**MET.TR.265(d)** Medium-level SIGWX forecasts for flight levels between 100 and 250 for limited geographical areas shall be issued.	MET.TR
~~1.3.3 Items included in SIGWX forecasts~~	---	---	---

ICAO Annex 3, Part II	Justification/reason for changes	Proposed NPA 2014-07 (A) text	Relevant Part
MET.TR.265(c)(3) include in SIGWX forecasts ~~shall include~~ the following items:	Transposed with no change.	**MET.TR.265(c)(3)** include in SIGWX forecasts the following items:	MET.TR
(~~a~~i) tropical cyclone provided that the maximum of the 10-minute mean surface wind speed is expected to reach or exceed 17 m/s (34 kt);	Transposed with no change.	**(i)** tropical cyclone provided that the maximum of the 10-minute mean surface wind speed is expected to reach or exceed 34 kt (17 m/s);	MET.TR
(~~b~~ii) severe squall lines;	Transposed with no change.	**(ii)** severe squall lines;	MET.TR
(~~c~~iii) moderate or severe turbulence (in cloud or clear air);	Transposed with no change.	**(iii)** moderate or severe turbulence (in cloud or clear air);	MET.TR
(~~d~~iv) moderate or severe icing;	Transposed with no change.	**(iv)** moderate or severe icing;	MET.TR
(~~e~~v) widespread sandstorm/duststorm;	Transposed with no change.	**(v)** widespread sandstorm/duststorm;	MET.TR
(~~f~~vi) cumulonimbus clouds associated with thunderstorms and with (i~~a~~) to (v~~e~~);	Transposed with no change.	**(vi)** cumulonimbus clouds associated with thunderstorms and with (i) to (v);	MET.TR
~~Note.—~~(vii) Non-convective cloud areas associated with in-cloud moderate or severe turbulence and/or moderate or severe icing ~~are to be included in the SIGWX forecasts.~~	Text upgraded to IR as according to that what the Note means, it is considered to be clearly an IR.	**(vii)** Non-convective cloud areas associated with in-cloud moderate or severe turbulence and/or moderate or severe icing	MET.TR
(viii~~g~~) flight level of tropopause;	Transposed with no change.	**(viii)** flight level of tropopause;	MET.TR
(ix~~h~~) jet streams;	Transposed with no change.	**(ix)** jet streams;	MET.TR

ICAO Annex 3, Part II	Justification/reason for changes	Proposed NPA 2014-07 (A) text	Relevant Part
(x)~~i)~~ information on the location of volcanic eruptions that are producing ash clouds of significance to aircraft operations, comprising: volcanic eruption symbol at the location of the volcano and, in a separate text box on the chart, the volcanic eruption symbol, the name of the volcano (if known) and the latitude/longitude of the eruption. In addition, the legend of SIGWX charts should indicate "CHECK SIGMET, ADVISORIES FOR TC AND VA, AND ASHTAM AND NOTAM FOR VA"~~.~~; and	Transposed with no change.	**(x)** information on the location of volcanic eruptions that are producing ash clouds of significance to aircraft operations, comprising: volcanic eruption symbol at the location of the volcano and, in a separate text box on the chart, the volcanic eruption symbol, the name of the volcano (if known) and the latitude/longitude of the eruption. In addition, the legend of SIGWX charts should indicate 'CHECK SIGMET, ADVISORIES FOR TC AND VA, AND ASHTAM AND NOTAM FOR VA'; and	MET.TR
(xi~~j~~) information on the location of a release of radioactive materials into the atmosphere of significance to aircraft operations, comprising: the radioactive materials in the atmosphere symbol at the location of the release and, in a separate box on the chart, the radioactive materials in the atmosphere symbol, latitude/longitude of the site of the release, and (if known) the name of site of the radioactive source. In addition, the legend of SIGWX charts on which a release of radiation is indicated should contain "CHECK SIGMET AND NOTAM FOR RDOACT CLD".	Transposed with no change.	**(xi)** information on the location of a release of radioactive materials into the atmosphere of significance to aircraft operations, comprising: the radioactive materials in the atmosphere symbol at the location of the release and, in a separate box on the chart, the radioactive materials in the atmosphere symbol, latitude/longitude of the site of the release, and (if known) the name of site of the radioactive source. In addition, the legend of SIGWX charts on which a release of radiation is indicated should contain 'CHECK SIGMET AND NOTAM FOR RDOACT CLD'.	MET.TR

ICAO Annex 3, Part II	Justification/reason for changes	Proposed NPA 2014-07 (A) text	Relevant Part
~~Note 1.— Medium-level SIGWX forecasts include all the items above.~~	This text is not transposed as it is considered to be already covered by MET.TR.265(d)	---	---
~~Note 2.— Items to be included in low-level SIGWX forecasts (i.e. flight levels below 100) are included in Appendix 5.~~	This Note is not transposed as it is not considered to bring any added value to understand the rule but refers to an appendix.	---	---
~~1.3.4 Criteria for including items in SIGWX forecasts~~	---	---	---
MET.TR.265(c)(4) The following criteria shall be applied for SIGWX forecasts:	Transposed with no change.	**MET.TR.265(c)(4)** The following criteria shall be applied for SIGWX forecasts:	MET.TR
(i~~1~~) items (i~~a~~) to (~~f~~v) in (3) above ~~1.3.3 a)~~ shall only be included if expected to occur between the lower and upper levels of the SIGWX forecast;	Transposed with no change. Reference changes only.	**(i)** items (i) to (v) in (3) above shall only be included if expected to occur between the lower and upper levels of the SIGWX forecast;	MET.TR
(iii~~2b~~) the abbreviation "CB" shall only be included when it refers to the occurrence or expected occurrence of cumulonimbus clouds:	Transposed with no change.	**(iii)** the abbreviation 'CB' shall only be included when it refers to the occurrence or expected occurrence of cumulonimbus clouds:	MET.TR
(A~~i1~~) affecting an area with a maximum spatial coverage of 50 per cent or more of the area concerned;	Transposed with no change.	(A) affecting an area with a maximum spatial coverage of 50 per cent or more of the area concerned;	MET.TR

ICAO Annex 3, Part II	Justification/reason for changes	Proposed NPA 2014-07 (A) text	Relevant Part
(B~~ii2~~) along a line with little or no space between individual clouds; or	Transposed with no change.	(B) along a line with little or no space between individual clouds; or	MET.TR
(C~~ii~~i~~3~~) embedded in cloud layers or concealed by haze;	Transposed with no change.	(C) embedded in cloud layers or concealed by haze;	MET.TR
(iv~~3c~~) the inclusion of "CB" shall be understood to include all weather phenomena normally associated with cumulonimbus clouds, i.e. thunderstorm, moderate or severe icing, moderate or severe turbulence and hail;	Transposed with no change.	**(iv)** the inclusion of 'CB' shall be understood to include all weather phenomena normally associated with cumulonimbus clouds, i.e. thunderstorm, moderate or severe icing, moderate or severe turbulence and hail;	MET.TR
(v~~4~~) where a volcanic eruption or a release of radioactive materials into the atmosphere warrants the inclusion of the volcanic eruption symbol or the radioactive materials in the atmosphere symbol in SIGWX forecasts, the symbols shall be included on SIGWX forecasts irrespective of the height to which the ash column or radioactive material is reported or expected to reach; and	Transposed with no change.	**(v)** where a volcanic eruption or an accidental release of radioactive materials into the atmosphere warrants the inclusion of the volcanic activity symbol or the radioactivity symbol in SIGWX forecasts, the symbols shall be included on SIGWX forecasts irrespective of the height to which the ash column or radioactive material is reported or expected to reach; and	MET.TR
(vi~~e~~) in the case of co-incident or the partial overlapping of items (i~~a~~), (x~~i~~) and (xi~~j~~) in (3) above~~1.3.3~~, the highest priority shall be given to item j~~i~~), followed by items k~~j~~) and a). The item with the highest priority shall be placed at the location of the event, and an arrow shall be used	Transposed with no change. Reference changes only.	**(vi)** in the case of co-incident or the partial overlapping of items i), x) and xi) in (3) above, the highest priority shall be given to item j), followed by items k) and a). The item with the highest priority shall be placed at the location of the event, and	MET.TR

ICAO Annex 3, Part II	Justification/reason for changes	Proposed NPA 2014-07 (A) text	Relevant Part
to link the location of the other item(s) to its associated symbol or text box.		an arrow shall be used to link the location of the other item(s) to its associated symbol or text box.	
~~**2. AERODROME METEOROLOGICAL OFFICES**~~	---	---	---
~~**2.1 Use of WAFS products**~~	---	---	---
~~2.1.1 Aerodrome meteorological offices shall use forecasts issued by the WAFCs in the preparation of flight documentation, whenever these forecasts cover the intended flight path in respect of time, altitude and geographical extent, unless otherwise agreed between the meteorological authority and the operator concerned.~~	This text is not transposed as it is already covered in MET.TR.215(b)(1)	---	---
~~2.1.2 In order to ensure uniformity and standardization of flight documentation, the WAFS GRIB and BUFR data received shall be decoded into standard WAFS charts in accordance with relevant provisions in this Annex, and the meteorological content and identification of the originator of the WAFS forecasts shall not be amended.~~	This text is not transposed as it is already covered in MET.TR.215	---	---
~~**2.2 Notification of WAFC concerning significant discrepancies**~~	---	---	---
~~Aerodrome meteorological offices using WAFS~~	This text is not transposed as it	---	---

ICAO Annex 3, Part II	Justification/reason for changes	Proposed NPA 2014-07 (A) text	Relevant Part
~~BUFR data shall notify the WAFC concerned immediately if significant discrepancies are detected or reported in respect of WAFS SIGWX forecasts concerning:~~	is already covered in MET.OR.245		
~~a) icing, turbulence, cumulonimbus clouds that are obscured, frequent, embedded or occurring at a squall line, and sandstorms/duststorms; and~~	This text is not transposed as it is already covered in MET.OR.245	---	---
~~b) volcanic eruptions or a release of radioactive materials into the atmosphere, of significance to aircraft operations.~~	This text is not transposed as it is already covered in MET.OR.245	---	---
~~The WAFC receiving the message shall acknowledge its receipt to the originator, together with a brief comment on the report and any action taken, using the same means of communication employed by the originator.~~	Not transposed as it is considered not to be needed	---	---
~~Note.— Guidance on reporting significant discrepancies is provided in the Manual of Aeronautical Meteorological Practice (Doc 8896).~~	This text is not transposed as it is already covered in GM1 MET.OR.245	---	---
~~**3. VOLCANIC ASH ADVISORY CENTRES (VAAC)**~~	---	---	---
~~**3.1 Volcanic ash advisory information**~~	---	---	---
~~3.1.1~~ **MET.TR.260 Volcanic Ash Advisory Centre responsibilities**	Text amended for purpose of clarity and simplification.	**MET.TR.260 Volcanic Ash Advisory Centre responsibilities**	MET.TR

ICAO Annex 3, Part II	Justification/reason for changes	Proposed NPA 2014-07 (A) text	Relevant Part
(a) The advisory information on volcanic ash shall be issued in abbreviated plain language, ~~using approved ICAO abbreviations and numerical values of self-explanatory nature, shall be~~ and in accordance with the template shown in Table ~~A2-1~~8 of Appendix 1. When no ~~approved ICAO~~ abbreviations are available, English plain language text, to be kept to a minimum, shall be used.		**(a)** The advisory information on volcanic ash shall be issued in abbreviated plain language and in accordance with the template shown in Table 8 of Appendix 1. When no abbreviations are available, English plain language text, to be kept to a minimum, shall be used.	
~~3.1.2~~ **(b)** The volcanic ash advisory information listed in Table ~~A2-1~~8 of Appendix 1, when prepared in graphical format, shall be as specified in Appendix 1 of ICAO Annex 3 and issued using:	Transposed with no change. Only reference changes.	**(b)** The volcanic ash advisory information listed in Table 8 of Appendix 1, when prepared in graphical format, shall be as specified in Appendix 1 of ICAO Annex 3and issued using:	MET.TR
(1~~a~~) the portable network graphics (PNG) format; or	Transposed with no change.	**(1)** the portable network graphics (PNG) format; or	MET.TR
(~~b~~2) the BUFR code form, when exchanged in binary format.	Transposed with no change.	**(2)** the BUFR code form, when exchanged in binary format.	MET.TR
~~Note.~~ **GM1 MET.TR.260(b)(2) Volcanic Ash Advisory Centre responsibilities** The BUFR code form is contained in WMO Publication No. 306, Manual on Codes, Volume I.2, Part B — Binary Codes.	Transposed with no change.	**GM1 MET.TR.260(b)(2) Volcanic Ash Advisory Centre responsibilities** The BUFR code form is contained in WMO Publication No. 306, Manual on Codes, Volume I.2, Part B — Binary Codes.	MET.TR
~~**4. STATE VOLCANO OBSERVATORIES**~~	This section is not transposed as state volcano observatories are	---	---

ICAO Annex 3, Part II	Justification/reason for changes	Proposed NPA 2014-07 (A) text	Relevant Part
	not considered as being meteorological service provider.		
~~**4.1 Information from State volcano observatories**~~	---	---	---
~~Recommendation.— The information required to be sent by State volcano observatories to their associated ACCs, MWO and VAAC should comprise:~~	---	---	---
~~a) for significant pre-eruption volcanic activity: the date/time (UTC) of report; name and, if known, number of the volcano; location (latitude/longitude); and description of volcanic activity; and~~	---	---	---
~~b) for volcanic eruption: the date/time (UTC) of report and time of eruption (UTC) if different from time of report; name and, if known, number of the volcano; location (latitude/longitude); and description of the eruption including whether an ash column was ejected and, if so, an estimate of height of ash column and the extent of any visible volcanic ash cloud, during and following an eruption; and~~	---	---	---
~~c) for volcanic eruption cessation: the date/time (UTC) of report and time of eruption cessation (UTC); name and, if known, number of the~~	---	---	---

ICAO Annex 3, Part II	Justification/reason for changes	Proposed NPA 2014-07 (A) text	Relevant Part
~~volcano; and location (latitude/longitude).~~			
~~Note 1.— Pre-eruption volcanic activity in this context means unusual and/or increasing volcanic activity which could presage a volcanic eruption.~~	---	---	---
~~Note 2.— The State volcano observatories may use the Volcano Observatory Notice for Aviation (VONA) format to send information to its associated ACCs, MWO and VAAC. The VONA format is included in the Handbook on the International Airways Volcano Watch (IAVW) (Doc 9766) which is available on the ICAO IAVWOPSG website.~~	---	---	---
~~**5. TROPICAL CYCLONE ADVISORY CENTRES (TCAC)**~~ **MET.TR.270 Tropical Cyclone Advisory Centre responsibilities**		**MET.TR.270 Tropical Cyclone Advisory Centre responsibilities**	
~~**5.1 Tropical cyclone advisory information**~~	---	---	---
~~5.1.1~~ **(a)** The advisory information on tropical cyclones shall be issued for tropical cyclones when the maximum of the 10-minute mean surface wind speed is expected to reach or exceed 17 m/s (34 kt) during the period covered by the advisory.	Transposed with no change.	**(a)** The advisory information on tropical cyclones shall be issued for tropical cyclones when the maximum of the 10-minute mean surface wind speed is expected to reach or exceed 34 kt (17 m/s) during the period covered by the	MET.TR

ICAO Annex 3, Part II	Justification/reason for changes	Proposed NPA 2014-07 (A) text	Relevant Part
		advisory.	
~~5.1.2~~ **(b)** The advisory information on tropical cyclones shall be in accordance with the template shown in ~~Table A2-2.~~ Table 9 of Appendix 1.	Transposed with no change. Only reference changes.	**(b)** The advisory information on tropical cyclones shall be in accordance with the template shown in Table 9 of Appendix 1.	MET.TR
~~5.1.3 Recommendation.~~ **AMC1 MET.TR.270** The tropical cyclone advisory information listed in ~~Table A2-2~~ Table 9 of Appendix 1, when prepared in graphical format, should be as specified in Appendix 1 of ICAO Annex 3 and issued using:	Transposed with no change. Only reference changes.	**AMC1 MET.TR.270** The tropical cyclone advisory information listed in Table 9 of Appendix 1, when prepared in graphical format, should be as specified in Appendix 1 of ICAO Annex 3 and issued using:	MET.TR
(a) the portable network graphics (PNG) format; or	Transposed with no change.	**(a)** the portable network graphics (PNG) format; or	MET.TR
(b) the BUFR code form, when exchanged in binary format.	Transposed with no change.	**(b)** the BUFR code form, when exchanged in binary format.	MET.TR
~~Note.~~ **GM1 MET.TR.270 Tropical Cyclone Advisory Centre responsibilities** The BUFR code form is contained in WMO Publication No. 306, Manual on Codes, Volume I.2, Part B — Binary Codes.	Transposed with no change.	**GM1 MET.TR.270 Tropical Cyclone Advisory Centre responsibilities** The BUFR code form is contained in WMO Publication No. 306, Manual on Codes, Volume I.2, Part B — Binary Codes.	MET.TR

INFORMATION.

The **'Table A2-1. Template for advisory message for volcanic ash'** is transposed with no change. For brevity reasons, it is not reproduced in this document and can be found in **Table 8 of Appendix 1** to this NPA.

~~**Example A2-1. Advisory message for volcanic ash**~~ **GM1 MET.TR.260(a) Volcanic Ash Advisory centre responsibilities (VAAC)**	
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

INFORMATION.

The **'Table A2-2. Template for advisory message for tropical cyclones'** is transposed with no change. For brevity reasons, it is not reproduced in this document and can be found in **Table 9 of Appendix 1** to this NPA.

~~Example A2-2. Advisory message for tropical cyclones~~ **GM2 MET.TR.270 Tropical Cyclone Advisory Centre responsibilities**	
TC ADVISORY	
DTG:	20040925/1600Z
TCAC:	YUFO
TC:	GLORIA
NR:	01
PSN:	N2706 W07306
MOV:	NW 20KMH
C:	965HPA
MAX WIND:	22MPS
FCST PSN +6 HR:	25/2200Z N2748 W07350
FCST MAX WIND +6 HR:	22MPS
FCST PSN +12 HR:	26/0400Z N2830 W07430
FCST MAX WIND +12 HR:	22MPS
FCST PSN +18 HR:	26/1000Z N2852 W07500
FCST MAX WIND +18 HR:	21MPS
FCST PSN +24 HR:	26/1600Z N2912 W07530
FCST MAX WIND +24 HR:	20MPS
RMK:	NIL
NXT MSG:	20040925/2000Z

~~**APPENDIX 3. TECHNICAL SPECIFICATIONS RELATED TO METEOROLOGICAL OBSERVATIONS AND REPORTS**~~	---	---	---
~~**1. GENERAL PROVISIONS RELATED TO METEOROLOGICAL OBSERVATIONS**~~	---	---	---
~~1.1 Recommendation.~~ **MET.TR.255 Observing meteorological elements** The meteorological ~~instruments~~elements listed in MET.OR.255 shall be observed and/or measured and disseminated by automatic or semi-automatic meteorological observing system. ~~used at an aerodrome should be situated in such a way as to supply data which are representative of the area for which the measurements are required.~~	This text is amended for safety harmonisation. It makes the link between MET.OR and MET.TR requirements in order to cover missing requirements for observing and reporting meteorological elements.	**MET.TR.255 Observing meteorological elements** The meteorological elements listed in MET.OR.255 shall be observed and/or measured and disseminated by automatic or semi-automatic meteorological observing system.	MET.TR
~~Note.~~ **GM1 MET.TR.255(a)(1) Observing meteorological elements** Specifications concerning the siting of equipment and installations on operational areas, aimed at reducing the hazard to aircraft to a minimum, are contained in ~~Annex 14, Volume I, Chapter 9.~~ EASA CS-ADR-DSN.T.915 'Siting of equipment and installations on operational areas'.	Transposed with no change.	**GM1 MET.TR.255(a)(1) Observing meteorological elements** Specifications concerning the siting of equipment and installations on operational areas, aimed at reducing the hazard to aircraft to a minimum, are contained in EASA CS-ADR-DSN.T.915 'Siting of equipment and installations on operational areas'.	MET.TR

~~1.2 Recommendation. —~~ **GM1 MET.TR.255(a) Observing meteorological elements** ~~Meteorological instruments at aeronautical meteorological stations should be exposed, operated and maintained in accordance with the practices, procedures and specifications promulgated by the~~ The World Meteorological Organization promulgates practices, procedures and specifications for the exposure, operation and maintenance of meteorological instruments at aeronautical meteorological stations.	The change is made in order to transpose this paragraph as a guidance material (rather than AMC) as it is considered more appropriate to be guidance when it refers to WMO specifications.	**GM1 MET.TR.255(a) Observing meteorological elements** The World Meteorological Organization promulgates practices, procedures and specifications for the exposure, operation and maintenance of meteorological instruments at aeronautical meteorological stations.	MET.TR
~~1.3 Recommendation. — The observers at an aerodrome should be located, in so far as is practicable, so as to supply data which are representative of the area for which the observations are required.~~	This recommendation is not transposed as it is already covered in MET.TR.255	---	---
~~1.4 Recommendation. —~~ **AMC1 MET.OR.255 Meteorological reports and other information** Where automated equipment forms part of an integrated semi-automatic observing system, displays of data which are made available to the local ATS units should be a subset of and displayed parallel to those available in the ~~local~~ meteorological stations~~service unit~~ or meteorological offices. In those displays, each meteorological element should be annotated to identify, as appropriate, the locations for which the element is representative.	Editorial change to be consistent with the term meteorological stations used in MET.OR. Meteorological offices also display data, it is therefore added.	**AMC1 MET.OR.255 Meteorological reports and other information** Where automated equipment forms part of an integrated semi-automatic observing system, displays of data which are made available to the local ATS units should be a subset of and displayed parallel to those available in the meteorological stations or meteorological offices. In those displays, each meteorological element should be annotated to identify, as appropriate, the locations for which the element is representative.	MET.OR

~~**2. GENERAL CRITERIA RELATED TO METEOROLOGICAL REPORTS**~~	---	---	---
~~**2.1 Format of meteorological reports**~~	---	---	---
~~2.1.1~~ **MET.TR.250 Meteorological reports and other information** **(b)(1)** Local routine and special reports shall be issued in abbreviated plain language, in accordance with the template shown in ~~Table A3-1~~ Table 4 to Appendix 1 or with a format agreed between meteorological service providers and ATS units.	Re-wording to add the possibility to issue local routine and special reports with a different format as agreed between MET and ATS.	**MET.TR.250 Meteorological reports and other information** **(b)(1)** Local routine and special reports shall be issued in abbreviated plain language, in accordance with the template shown in Table 4 to Appendix 1 or with a format agreed between meteorological service providers and ATS units.	MET.TR
~~2.1.2~~ **MET.TR.250(c)(1) Meteorological reports and other information** METAR ~~and SPECI~~ shall be issued in accordance with the template shown in ~~Table A3-2~~ Table 5 to Appendix 1 and disseminated in the METAR ~~and SPECI~~ code forms prescribed by the World Meteorological Organization.	Transposed with no change. Editorial changes only.	**MET.TR.250(c)(1) Meteorological reports and other information** METAR shall be issued in accordance with the template shown in Table 5 to Appendix 1 and disseminated in the METAR code forms prescribed by the World Meteorological Organization.	MET.TR
~~Note.~~ **GM1 MET.TR.250(c)(1) Meteorological reports and other information** The METAR ~~and SPECI~~ code forms are contained in WMO Publication No. 306, Manual on Codes, Volume I.1, Part A — Alphanumeric Codes.	Transposed with no change. Editorial changes only.	**GM1 MET.TR.250(c)(1) Meteorological reports and other information** The METAR code form is contained in WMO Publication No. 306, Manual on Codes, Volume I.1, Part A — Alphanumeric Codes	MET.TR
~~2.1.3 Recommendation.~~ **AMC1 MET.TR.250(c)(2) Meteorological reports**	Amended. The bilateral agreement between Member States implies	**AMC1 MET.TR.250(c)(2) Meteorological reports and other information**	MET.TR

and other information METAR ~~and SPECI~~ should be disseminated, under bilateral agreements between Member States ~~in a position to do so~~, in digital form.~~, in addition to the dissemination of the METAR and SPECI in accordance with 2.1.2.~~	that their respective MET providers can disseminate METAR in digital form. The term 'States in a position to do so', included in amendment 76, is not appropriate to use in EU rules.	METAR should be disseminated, under bilateral agreements between Member States, in digital form.	
~~2.1.4~~ **MET.TR.250(c)(2) Meteorological reports and other information** ~~METAR and SPECI i~~If disseminated in digital form METAR shall be~~,~~: (i) formatted in accordance with a globally interoperable information exchange model and shall use ~~extensible markup language (XML)/~~geography markup language (GML).	XML is not used for meteorological reports.	**MET.TR.250(c)(2) Meteorological reports and other information** If disseminated in digital form, METAR shall be: (i) formatted in accordance with a globally interoperable information exchange model and shall use geography markup language (GML).	MET.TR
~~2.1.5 METAR and SPECI if disseminated in digital form, shall be~~ (ii) accompanied by the appropriate metadata.	Editorial change only.	(ii) accompanied by the appropriate metadata.	MET.TR
~~Note –~~ **GM1 MET.TR.250(c)(2) Meteorological reports and other information** 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)	Transposed with no change.	**GM1 MET.TR.250(c)(2) Meteorological reports and other information** 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)	MET.TR
~~**2.2 Use of CAVOK**~~	---	---	---

MET.TR.250(c)(4) Meteorological reports and other information Information on visibility, runway visual range, present weather and cloud amount, cloud type and height of cloud base shall be replaced in all meteorological reports by the term "CAVOK" ~~W~~when the following conditions occur simultaneously at the time of observation:	The added text comes from the last paragraph of 2.2 with no changes. No change in the wording but the conditions to have 'CAVOK' have been brought together in a more concise sentence.	**MET.TR.250(c)(4) Meteorological reports and other information** Information on visibility, runway visual range, present weather and cloud amount, cloud type and height of cloud base shall be replaced in all meteorological reports by the term 'CAVOK' when the following conditions occur simultaneously at the time of observation :	MET.TR
(i~~a~~) visibility, 10 km or more, and the lowest visibility is not reported;	Transposed with no change.	**(i)** visibility, 10 km or more, and the lowest visibility is not reported;	MET.TR
~~Note 1.— In local routine and special reports, visibility refers to the value(s) to be reported in accordance with 4.2.4.2 and 4.2.4.3; in METAR and SPECI, visibility refers to the value(s) to be reported in accordance with 4.2.4.4.~~	This Note is not transposed as it is considered redundant with the IR.	---	---
~~Note 2.— The lowest visibility is reported in accordance with 4.2.4.4 a).~~	This Note is not transposed as it is considered redundant with the IR.	---	---
(ii~~b~~) no cloud of operational significance;	Transposed with no change.	**(ii)** no cloud of operational significance;	MET.TR
(iii~~c~~) no weather of significance to aviation. ~~as given in 114.4.2.3 and 4.4.2.6;~~	Editorial change.	**(iii)** no weather of significance to aviation.	MET.TR
~~information on visibility, runway visual range, present weather and cloud amount, cloud type and height of cloud base shall be replaced in all meteorological reports by the term "CAVOK".~~	This paragraph is moved to MET.TR.250(a)(2) Reports and other information.	---	MET.TR

~~**2.3 Criteria for issuance of local special reports and SPECI**~~	---	---	---
~~2.3.1~~ **MET.TR.250 Meteorological reports and other information** **(d)** The list of criteria to provide ~~for the issuance of~~ local special reports shall include~~ the following~~:	Transposed with no change. Editorial change only.	**MET.TR.250 Meteorological reports and other information** **(d)** The list of criteria to provide local special reports shall include:	MET.TR
(~~a~~**1)** those values which most closely correspond with the operating minima of the operators using the aerodrome;	Transposed with no change.	**(1)** those values which most closely correspond with the operating minima of the operators using the aerodrome;	MET.TR
(~~b~~**2)** those values which satisfy other local requirements of the air traffic services units and of the operators;	Transposed with no change.	**(2)** those values which satisfy other local requirements of the air traffic services units and of the operators;	MET.TR
(~~c~~**3)** an increase in air temperature of 2°C or more from that given in the latest local special report, or an alternative threshold value as agreed between~~ the meteorological authority~~ meteorological services providers, the appropriate ATS ~~authority~~ unit and the operators concerned;	Transposed with no change. Editorial changes only.	**(3)** an increase in air temperature of 2°C or more from that given in the local special latest report, or an alternative threshold value as agreed between meteorological services providers, the appropriate ATS unit and the operators concerned;	MET.TR
(~~d~~**4)** the available supplementary information concerning the occurrence of significant meteorological conditions in the approach and climb-out areas as given in Table 4 to Appendix 1;	Transposed with no change. Reference change only.	**(4)** the available supplementary information concerning the occurrence of significant meteorological conditions in the approach and climb-out areas as given in Table 4 to Appendix 1;	MET.TR
~~e~~**(5)** ~~from 13 November 2014,~~ when noise	The reference to the date is ICAO	**(5)** when noise abatement procedures are	MET.TR

abatement procedures are applied ~~in accordance with 7.2.7 of the PANS-ATM (Doc 4444)~~ and the variation from the mean surface wind speed (gusts) has changed by 2.5 m/s (5 kt) or more from that at the time of the latest local special report, the mean speed before and/or after the change being 7.5 m/s (15 kt) or more; and	specific and not relevant in the context of EU rules. Reference to Doc 4444 is transposed into a new GM (see below). This deleted sentence is added as guidance material to (e) above.	applied and the variation of the mean surface wind speed (gusts) has changed by 5kt (2.5 m/s) or more from at the time of the latest local special report, the mean speed before and/or after the change being 15kt (7.5 m/s) or more; and **GM1 MET.TR.250(d)(5) Reports and other information** The noise abatement procedures are those in accordance with 7.2.7 of the PANS-ATM (doc 4444)	
~~f) those values which constitute criteria for SPECI.~~	---	---	---
~~2.3.2 Where required in accordance with Chapter 4, 4.4.2 b), SPECI shall be issued whenever changes in accordance with the following criteria occur:~~	---	---	---
~~a when the mean surface wind direction has changed by 60° or more from that given in the latest report, the mean speed before and/or after the change being 5 m/s (10 kt) or more;~~	Not transposed as it is related to SPECI. No SPECI in Europe.	---	---
~~b when the mean surface wind speed has changed by 5 m/s (10 kt) or more from that given in the latest report;~~	Not transposed as it is related to SPECI. No SPECI in Europe.	---	---
~~when the variation from the mean surface wind speed (gusts) has changed by 5 m/s (10 kt) or more from that at the time of the latest report,~~	Not transposed as it is related to SPECI. No SPECI in Europe.	---	---

~~the mean speed before and/or after the change being 7.5 m/s (15 kt) or more;~~			
~~d when the onset, cessation or change in intensity of any of the following weather phenomena occurs:~~	Not transposed as it is related to SPECI. No SPECI in Europe.	---	---
~~— freezing precipitation~~	Not transposed as it is related to SPECI. No SPECI in Europe.	---	---
~~— moderate or heavy precipitation (including showers thereof)~~	Not transposed as it is related to SPECI. No SPECI in Europe.	---	---
~~— thunderstorm (with precipitation);~~	Not transposed as it is related to SPECI. No SPECI in Europe.	---	---
~~e when the onset or cessation of any of the following weather phenomena occurs:~~ ~~(i) — freezing fog~~ ~~(ii) — thunderstorm (without precipitation);~~	Not transposed as it is related to SPECI. No SPECI in Europe.	---	---
~~f when the amount of a cloud layer below 450 m (1 500 ft) changes:~~	Not transposed as it is related to SPECI. No SPECI in Europe.	---	---
~~(1i) from SCT or less to BKN or OVC; or~~	Not transposed as it is related to SPECI. No SPECI in Europe.	---	---
~~(2ii) from BKN or OVC to SCT or less.~~	Not transposed as it is related to SPECI. No SPECI in Europe.	---	---
~~2.3.3 Recommendation.— Where required in accordance with Chapter 4, 4.4.2 b), SPECI~~	Not transposed as it is related to SPECI. No SPECI in Europe.	---	---

~~should be issued whenever changes in accordance with the following criteria occur:~~			
~~a when the wind changes through values of operational significance. The threshold values should be established by the meteorological authority in consultation with the appropriate ATS authority and operators concerned, taking into account changes in the wind which would:~~	Not transposed as it is related to SPECI. No SPECI in Europe.	---	---
~~(1) require a change in runway(s) in use; and~~	Not transposed as it is related to SPECI. No SPECI in Europe.	---	---
~~(2) indicate that the runway tailwind and crosswind components have changed through values representing the main operating limits for typical aircraft operating at the aerodrome;~~	Not transposed as it is related to SPECI. No SPECI in Europe.	---	---
~~b when the visibility is improving and changes to or passes through one or more of the following values, or when the visibility is deteriorating and passes through one or more of the following values:~~	Not transposed as it is related to SPECI. No SPECI in Europe.	---	---
~~(i1) 800, 1 500 or 3 000 m; and~~	Not transposed as it is related to SPECI. No SPECI in Europe.	---	---
~~(2) 5 000 m, in cases where significant numbers of flights are operated in accordance with the visual flight rules;~~	Not transposed as it is related to SPECI. No SPECI in Europe.	---	---
~~Note 1. — In local special reports, visibility refers to the value(s) to be reported in accordance with~~	---	---	---

~~4.2.4.2 and 4.2.4.3; in SPECI, visibility refers to the value(s) to be reported in accordance with 4.2.4.4.~~			
~~Note 2.— Visibility refers to "prevailing visibility" except in the case where only the lowest visibility is reported in accordance with 4.2.4.4 b).~~	Not transposed as it relates to SPECI. No SPECI in Europe.	---	---
~~c when the runway visual range is improving and changes to or passes through one or more of the following values, or when the runway visual range is deteriorating and passes through one or more of the following values: 50, 175, 300, 550 or 800 m;~~	Not transposed as it is related to SPECI. No SPECI in Europe.	---	---
~~d when the onset, cessation or change in intensity of any of the following weather phenomena occurs:~~	Not transposed as it is related to SPECI. No SPECI in Europe.	---	---
~~— duststorm~~ ~~— sandstorm~~ ~~— funnel cloud (tornado or waterspout);~~	Not transposed as it is related to SPECI. No SPECI in Europe.	---	---
~~e when the onset or cessation of any of the following weather phenomena occurs:~~	Not transposed as it is related to SPECI. No SPECI in Europe.	---	---
~~— ice crystals~~ ~~— low drifting dust, sand or snow~~ ~~— blowing dust, sand or snow — squall;~~	Not transposed as it is related to SPECI. No SPECI in Europe.	---	---

~~f when the height of base of the lowest cloud layer of BKN or OVC extent is lifting and changes to or passes through one or more of the following values, or when the height of base of the lowest cloud layer of BKN or OVC extent is lowering and passes through one or more of the following values:~~	Not transposed as it is related to SPECI. No SPECI in Europe.	---	---
~~(i1) 30, 60, 150 or 300 m (100, 200, 500 or 1 000 ft); and~~	Not transposed as it is related to SPECI. No SPECI in Europe.	---	---
~~(ii2) 450 m (1 500 ft), in cases where significant numbers of flights are operated in accordance with the visual flight rules;~~	Not transposed as it is related to SPECI. No SPECI in Europe.	---	---
~~g when the sky is obscured and the vertical visibility is improving and changes to or passes through one or more of the following values, or when the vertical visibility is deteriorating and passes through one or more of the following values: 30, 60, 150 or 300 m (100, 200, 500 or 1 000 ft); and~~	Not transposed as it is related to SPECI. No SPECI in Europe.	---	---
~~hany other criteria based on local aerodrome operating minima, as agreed between the meteorological authority and the operators.~~	Not transposed as it is related to SPECI. No SPECI in Europe.	---	---
~~Note.— Other criteria based on local aerodrome operating minima are to be considered in parallel with similar criteria for the inclusion of change groups and for the amendment of TAF developed in response to Appendix 5, 1.3.2 j).~~	Not transposed as it is related to SPECI. No SPECI in Europe.	---	---

~~2.3.4 When a deterioration of one weather element is accompanied by an improvement in another element, a single SPECI shall be issued; it shall then be treated as a deterioration report.~~	This paragraph is not transposed as it concerns SPECI which is not used in EU rules.	---	---
~~**3. DISSEMINATION OF METEOROLOGICAL REPORTS**~~	---	---	---
~~**3.1 METAR and SPECI**~~	---	---	---
~~3.1.1~~ **GM1 MET.OR.110 Information exchange requirements** ~~METAR and SPECI shall be~~ Operational meteorological information are disseminated to international OPMET databanks and the centres ~~designated by regional air navigation agreement~~ for the operation of aeronautical fixed service satellite distribution systems.~~, in accordance with regional air navigation agreement.~~	This paragraph is considered to be too stringent if left as an IR because this obligation is not always the case. It has therefore been re-worded to transpose it as guidance material. An additional GM with reference to the FASID table was considered appropriate to be included.	**GM1 MET.OR.110 Information exchange requirements** Operational meteorological information are disseminated to international OPMET databanks and the centres for the operation of aeronautical fixed service satellite distribution systems. **GM2 MET.OR.110 Information exchange requirements** The list of relevant exchange requirements for OPMET can be found in the FASID tables in doc 7754 (EUR ANP)	MET.OR
~~3.1.2 METAR and SPECI shall be disseminated to other aerodromes in accordance with regional air navigation agreement.~~	This paragraph is not transposed as it is not applicable because MET providers do not disseminate to other aerodromes. Additionally, it is already included in 3.1.1 above	---	---
~~3.1.3 SPECI representing a deterioration in conditions shall be disseminated immediately~~	This paragraph is not transposed as it concerns SPECI which is not used	---	---

~~after the observation. A SPECI representing a deterioration of one weather element and an improvement in another element shall be disseminated immediately after the observation.~~	in EU rules.		
~~3.1.4 Recommendation. — A SPECI representing an improvement in conditions should be disseminated only after the improvement has been maintained for 10 minutes; it should be amended before dissemination, if necessary, to indicate the conditions prevailing at the end of that 10-minute period.~~	This paragraph is not transposed as it concerns SPECI which is not used in EU rules.	---	---
~~3.2 Local routine and special reports~~	---	---	---
~~3.2.1 Local routine reports shall be transmitted to local air traffic services units and shall be made available to the operators and to other users at the aerodrome.~~	This paragraph is not transposed as it is already covered by MET.OR.250(a)(1).	---	---
~~3.2.2~~ **GM1 MET.OR.250(a)(1) Reports and other information** ~~Local special reports shall be transmitted to local air traffic services units as soon as the specified conditions occur.~~ ~~However, b~~By agreement between the meteorological station~~ meteorological authority~~ and the appropriate ATS unit,~~ authority, they need not be issued in respect of:~~ local routine and local special reports may not be disseminated where:	The first paragraph is not transposed as it is already covered by MET.OR.110 and MET.OR.250(a)(1). The second paragraph is transposed as guidance material.	**GM1 MET.OR.250(a)(1) Reports and other information** By agreement between the provider of meteorological station and the appropriate ATS unit, local routine and local special reports may not be disseminated where:	MET.OR

(a) any element for which there is in the local air traffic services unit a display corresponding to the one in the meteorological station, and where arrangements are in force for the use of this display to update information included in local routine and special reports; and	Transposed with no change.	(a) any element for which there is in the local air traffic services unit a display corresponding to the one in the meteorological station, and where arrangements are in force for the use of this display to update information included in local routine and special reports; and	MET.OR
(b) runway visual range, when all changes of one or more steps on the reporting scale in use are being reported to the local air traffic services unit by an observer on the aerodrome.	Transposed with no change.	(b) runway visual range, when all changes of one or more steps on the reporting scale in use are being reported to the local air traffic services unit by an observer on the aerodrome.	MET.OR
~~Local special reports shall also be made available to the operators and to other users at the aerodrome.~~	This paragraph is not transposed as it is already covered by MET.OR.250(a)(1)	---	MET.TR
~~**4. OBSERVING AND REPORTING OF METEOROLOGICAL ELEMENTS**~~	---	---	MET.TR
~~Introductory Note.~~ **GM1 MET.TR.255(a) Observing meteorological elements** Selected criteria applicable to meteorological information related to surface wind, visibility, runway visual range, present weather, clouds, air and dew point temperatures, atmospheric pressure and supplementary information~~referred to under 4.1 to 4.8~~ for inclusion in aerodrome reports are given in tabular form at Attachment C of ICAO Annex 3.	This Note is amended to take into account the elements contained in 4.1 to 4.8	**GM1 MET.TR.255(a) Observation of meteorological elements** Selected criteria applicable to meteorological information related to surface wind, visibility, runway visual range, present weather, clouds, air and dew point temperatures, atmospheric pressure and supplementary information for inclusion in aerodrome reports are given in tabular form at Attachment C of ICAO Annex 3.	MET.TR

~~4.1~~ **MET.TR.255 Observing meteorological elements** **(a) Surface wind direction and speed**	Title amended to align with corresponding title in MET.OR.	**MET.TR.255 Observation of meteorological elements** **(a) Surface wind direction and speed**	MET.TR
~~4.1.1~~ **(1)** Siting		**(1)** Siting	MET.TR
~~4.1.1.1 Recommendation.~~ **AMC1 MET.TR.255(a)(1) Observing meteorological elements** Reported ~~S~~surface wind should be representative of a wind at ~~observed at~~ a height of 10 ± 1 m (30 ± 3 ft) above the ground.	This recommendation is amended as it is possible to recalculate the wind. There are other means to report surface wind, e.g. at a height of less than 10.	**AMC1 MET.TR.255(a)(1) Observation of meteorological elements** Reported surface wind should be representative of a wind at a height of 10 ± 1 m (30 ± 3 ft) above the ground.	MET.TR
~~4.1.1.2 Recommendation.~~ **AMC2 MET.TR.255(a)(1) Observing meteorological elements** (a) Representative surface wind observations should be obtained by the use of sensors appropriately sited. (b) 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. (c) 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.	Transposed with no change.	**AMC2 MET.TR.255(a)(1) Observation of meteorological elements** **(a)** Representative surface wind observations should be obtained by the use of sensors appropriately sited. **(b)** 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. **(c)** 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.	MET.TR
~~Note.~~ **GM2 MET.TR.255(a) Observing**	Transposed with no change.	**GM2 MET.TR.255(a) Observation of**	MET.TR

meteorological elements 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.		**meteorological elements** 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.	
~~4.1.2 Displays~~	---	---	---
~~4.1.2.1 Surface wind displays relating to each sensor shall be located in the meteorological station with corresponding displays in the appropriate air traffic services units. The displays in the meteorological station and in the air traffic services units shall relate to the same sensors, and where separate sensors are required as specified in 4.1.1.2, the displays shall be clearly marked to identify the runway and section of runway monitored by each sensor.~~	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.	---	---
~~4.1.2.2 Recommendation.~~ **AMC1 MET.TR.255(a) Observing meteorological elements** 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.	Transposed with no change.	**AMC1 MET.TR.255(a) Observation of meteorological elements** 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.	MET.TR
~~4.1.3~~ **MET.TR.255(a)(2)** Averaging	Transposed with no change.	**MET.TR.255(a)(2)** Averaging	MET.TR

The averaging period for surface wind observations shall be:	Transposed with no change.	The averaging period for surface wind observations shall be:	MET.TR
(~~a~~i) 2 minutes for local routine and special reports and for wind displays in air traffic services units; and	Transposed with no change.	**(i)** 2 minutes for local routine and special reports and for wind displays in air traffic services units; and	MET.TR
(~~b~~ii) 10 minutes for METAR ~~and SPECI~~, except that when the 10-minute period includes a marked discontinuity in the wind direction and/or speed, only data occurring after the discontinuity shall be used for obtaining mean values; hence, the time interval in these circumstances shall be correspondingly reduced.	SPECI not used in Europe.	**(ii)** 10 minutes for METAR, except that when the 10-minute period includes a marked discontinuity in the wind direction and/or speed, only data occurring after the discontinuity shall be used for obtaining mean values; hence, the time interval in these circumstances shall be correspondingly reduced.	MET.TR
~~Note.~~ **GM1 MET.TR.255(a)(2)(ii) Observing meteorological elements** A marked discontinuity occurs when there is an abrupt and sustained change in wind direction of 30° or more, with a wind speed of 5 m/s (10 kt) before or after the change, or a change in wind speed of 5 m/s (10 kt) or more, lasting at least 2 minutes.	Transposed with no change.	**GM1 MET.TR.255(a)(2)(ii) Observation of meteorological elements** 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.	MET.TR
~~4.1.3.2 Recommendation.~~ **AMC1 MET.TR.255(a)(2) Observing meteorological elements** The averaging period for measuring variations from the mean wind speed (gusts) reported in accordance with ~~4.1.5.2 c)~~MET.TR.252(a)(3)(iii) should be 3 seconds for local routine and special	Transposed with no change. SPECI not used in Europe.	**AMC1 MET.TR.255(a)(2) Observation of meteorological elements** The averaging period for measuring variations from the mean wind speed (gusts) reported in accordance with MET.TR.252(a)(3)(iii) should be 3 seconds for local routine and special reports and for	MET.TR

reports and for METAR ~~and SPECI~~ and for wind displays used for depicting variations from the mean wind speed (gusts) in air traffic services units.		METAR and for wind displays used for depicting variations from the mean wind speed (gusts) in air traffic services units.	
~~4.1.4 Accuracy of measurement~~	Not transposed as it is already covered in MET.TR.255(a)	---	---
~~Recommendation.~~ **AMC1 MET.TR.255(a)(3) Observing meteorological elements** 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.	Transposed with no change.	**AMC1 MET.TR.255(a)(3) Observing meteorological elements** 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.	MET.TR
~~4.1.5~~ **MET.TR.252 Reporting of meteorological elements**		**MET.TR.252 Reporting of meteorological elements**	MET.TR
~~4.1.5.1~~ **(a)Surface wind direction and speed** **(1)** In local routine and special reports and in METAR ~~and SPECI~~, the surface wind direction and speed shall be reported in steps of 10 degrees true and 1 metre per second (or 1 knot), respectively. **(a)(2)** Any observed value that does not fit the reporting scale in use shall be rounded to the nearest step in the scale.	Transposed with no change. SPECI not used in Europe.	**(a) Surface wind direction and speed** **(1)** In local routine and special reports and in METAR, the surface wind direction and speed shall be reported in steps of 10 degrees true and 1 metre per second (or 1 knot), respectively. **(a)(2)** Any observed value that does not fit the reporting scale in use shall be rounded to the nearest step in the scale.	MET.TR
~~4.1.5.2~~ **MET.TR.252 (a)(3)** In local routine and	Transposed with no change.	**MET.TR.252(a)(3)** In local routine and	MET.TR

special reports and in METAR: ~~and SPECI:~~	SPECI not used in Europe.	special reports and in METAR:	
(i) the units of measurement used for the wind speed shall be indicated;	Transposed with no change.	**(i)** the units of measurement used for the wind speed shall be indicated;	MET.TR
(ii) variations from the mean wind direction during the past 10 minutes shall be reported as follows, if the total variation is 60° or more:	Transposed with no change.	**(ii)** variations from the mean wind direction during the past 10 minutes shall be reported as follows, if the total variation is 60° or more:	MET.TR
(A~~1~~) when the total variation is 60° or more and less than 180° and the wind speed is 1.5 m/s (3 kt) or more, such directional variations shall be reported as the two extreme directions between which the surface wind has varied;	Transposed with no change.	**(A)** when the total variation is 60° or more and less than 180° and the wind speed is 3 kt (1.5 m/s) or more, such directional variations shall be reported as the two extreme directions between which the surface wind has varied;	MET.TR
(B~~2~~) when the total variation is 60° or more and less than 180° and the wind speed is less than 1.5 m/s (3 kt), the wind direction shall be reported as variable with no mean wind direction; or	Transposed with no change.	**(B)** when the total variation is 60° or more and less than 180° and the wind speed is less than 3 kt (1.5 m/s), the wind direction shall be reported as variable with no mean wind direction; or	MET.TR
(C~~3~~) when the total variation is 180° or more, the wind direction shall be reported as variable with no mean wind direction;	Transposed with no change.	**(C)** when the total variation is 180° or more, the wind direction shall be reported as variable with no mean wind direction;	MET.TR
(iii) variations from the mean wind speed (gusts) during the past 10 minutes shall be reported when the maximum wind speed exceeds the mean speed by:	No change.	**(iii)** variations from the mean wind speed (gusts) during the past 10 minutes shall be reported when the maximum wind speed exceeds the mean speed by:	MET.TR
(A~~1~~) 2.5 m/s (5 kt) or more in local routine and	Transposed with no change.	**(A)** 5 kt (2.5 m/s) or more in local routine	MET.TR

special reports when noise abatement procedures are applied, ~~in accordance with paragraph 7.2.7 of the PANS-ATM (Doc 4444);~~ or	Reference to Doc 4444 is transposed into a new GM (see below)	and special reports when noise abatement procedures are applied, or **GM1 MET.TR.252(a)(3)(iii) Reporting of meteorological elements** The noise abatement procedures are those in accordance with 7.2.6 of the PANS-ATM (doc 4444)	
(B~~2~~) 5 m/s (10 kt) or more otherwise;	Transposed with no change.	**(B)** 10 kt (5 m/s) or more otherwise;	MET.TR
(iv) when a wind speed of less than 0.5 m/s (1 kt) is reported, it shall be indicated as calm;	Transposed with no change.	**(iv)** when a wind speed of less than 1 kt (0.5 m/s) is reported, it shall be indicated as calm;	MET.TR
(v~~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); and	Transposed with no change.	(v) when a wind speed of 100 kt (50 m/s) or more is reported, it shall be indicated to be more than 99 kt (49 m/s); and	MET.TR
(vi~~f~~) when the 10-minute period includes a marked discontinuity in the wind direction and/or speed, only variations from the mean wind direction and mean wind speed occurring since the discontinuity shall be reported.	Transposed with no change.	(vi) when the 10-minute period includes a marked discontinuity in the wind direction and/or speed, only variations from the mean wind direction and mean wind speed occurring since the discontinuity shall be reported.	MET.TR
~~Note. — See note under 4.1.3.1.~~	---	---	---
~~4.1.5.3~~**MET.TR.250 Reports and other information** **(b)(2)** In local routine and special reports:	Transposed with no change.	**MET.TR.250 Reports and other information** **(b)(2)** In local routine and special reports:	MET.TR

(i~~a~~) if the surface wind is observed from more than one location along the runway, the locations for which these values are representative shall be indicated;	Transposed with no change.	**(i)** if the surface wind is observed from more than one location along the runway, the locations for which these values are representative shall be indicated;	MET.TR
(ii~~b~~) when there is more than one runway in use and the surface wind related to these runways is observed, the available wind values for each runway shall be given, and the runways to which the values refer shall be reported;	Transposed with no change.	**(ii)** when there is more than one runway in use and the surface wind related to these runways is observed, the available wind values for each runway shall be given, and the runways to which the values refer shall be reported;	MET.TR
(iii~~c~~) when variations from the mean wind direction are reported in accordance with ~~4.1.5.2 b) 2)~~MET.TR.252(a)(3)(ii)2), the two extreme directions between which the surface wind has varied shall be reported; and	Transposed with no change. Editorial change only.	**(iii)** when variations from the mean wind direction are reported in accordance with MET.TR.255(a)(3)(ii)2), the two extreme directions between which the surface wind has varied shall be reported; and	MET.TR
(iv~~d~~) when variations from the mean wind speed (gusts) are reported in accordance with ~~4.1.5.2 c)~~MET.TR.252(a)(3)(iii), they shall be reported as the maximum and minimum values of the wind speed attained.	Transposed with no change. Editorial change only.	**(iv)** when variations from the mean wind speed (gusts) are reported in accordance with MET.TR.252(a)(3)(iii), they shall be reported as the maximum and minimum values of the wind speed attained.	MET.TR
~~4.1.5.4~~ **MET.TR.252 Reporting of meteorological elements** ~~In METAR and SPECI~~**(a)(3)(vii)** when variations from the mean wind speed (gusts) are reported in accordance with ~~4.1.5.2 c)~~MET.TR.255(a), the maximum value of the wind speed attained shall be reported.	Transposed with no change. Transposed with no change. Editorial changes only.	**MET.TR.252 Reporting of meteorological elements** **(a)(3)(vii)** 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.	MET.TR

~~4.2~~ **MET.TR.255 Observing meteorological elements** **(b) Visibility**	---	**MET.TR.255 Observing meteorological elements** **(b) Visibility**	MET.TR
~~4.2.1~~ (2) Siting		**(2)** Siting	MET.TR
~~4.2.1.1 Recommendation.~~ **AMC1 MET.TR.255(b)(1) Observing meteorological elements** (a) When instrumented systems are used for the measurement of visibility, ~~the visibility~~it should be measured at a height of approximately 2.5 m (7.5 ft) above the runway.	Transposed with no change.	**AMC1 MET.TR.255(b)(1) Observing meteorological elements** **(a)** 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.	MET.TR
~~4.2.1.2 Recommendation.~~ **AMC1 MET.TR.255(b)(2) Observing meteorological elements** **(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.	Transposed with no change.	**AMC1 MET.TR.255(b)(2) Observing meteorological elements** **(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.	MET.TR
~~4.2.2~~ (3) Displays	---	(3) Displays	---
~~Recommendation.~~ **AMC1 MET.TR.255(b)(3)**	Editorial reference change only	**AMC1 MET.TR.255(b)(3) Observing**	MET.TR

Observing meteorological elements **(a)** When instrumented systems are used for the measurement of visibility, visibility displays relating to each sensor should be located in the meteorological station with corresponding displays in the appropriate air traffic services units. **(b)** The displays in the meteorological station and in the air traffic services units should relate to the same sensors, and where separate sensors are required ~~as specified in 4.2.1~~, the displays should be clearly marked to identify the area, e.g. runway and section of runway, monitored by each sensor.		**meteorological elements** **(a)** When instrumented systems are used for the measurement of visibility, visibility displays relating to each sensor should be located in the meteorological station with corresponding displays in the appropriate air traffic services units. **(b)** The displays in the meteorological station and in the air traffic services units should relate to the same sensors, and where separate sensors are required, the displays should be clearly marked to identify the area, e.g. runway and section of runway, monitored by each sensor.	
~~4.2.3~~ (4) Averaging	---	(4) Averaging	MET.TR
~~Recommendation.~~ **AMC1 MET.TR.255 (b)(4) Observing meteorological elements** 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. **MET.TR.255 (b)(4) Observing meteorological elements** The averaging period shall~~ould~~ be:	Transposed with no change.	**AMC1 MET.TR.255(b)(4) Observation of meteorological elements** 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. **MET.TR.255 (b)(4) Observing meteorological elements** The averaging period shall be:	MET.TR
(1~~a~~) 1 minute for local routine and special reports and for visibility displays in ~~air traffic~~	Transposed with no change.	(1) 1 minute for local routine and special reports and for visibility displays in ATS	MET.TR

~~services units~~ATS; and		units; and	
(2~~b~~) 10 minutes for METAR~~ and SPECI~~, except that when the 10-minute period immediately preceding the observation includes a marked discontinuity in the visibility, only those values occurring after the discontinuity should be used for obtaining mean values.4.2.3	Transposed with no change. SPECI not used in Europe.	(2) 10 minutes for METAR, except that when the 10-minute period immediately preceding the observation includes a marked discontinuity in the visibility, only those values occurring after the discontinuity should be used for obtaining mean values	MET.TR
~~Note.— A marked discontinuity occurs when there is an abrupt and sustained change in visibility, lasting at least 2 minutes, which reaches or passes through criteria for the issuance of SPECI reports given in 2.3.~~	Not transposed – SPECI not used in Europe.	---	---
~~4.2.4~~ **(5)** Reporting	---	**(5)** Reporting	MET.TR
~~4.2.4.1~~**MET.TR.252 Reporting of meteorological elements** **(b)(1)** In local routine and special reports and in METAR~~ and SPECI~~, the visibility shall be reported in steps of 50 m when the visibility is less than 800 m; in steps of 100 m, when it is 800 m or more but less than 5 km; in kilometre steps, when the visibility is 5 km or more but less than 10 km; and it shall be given as 10 km when the visibility is 10 km or more, except when the conditions for the use of CAVOK apply. **(b)(2)** Any observed value which does not fit the reporting scale in use shall be rounded down to the nearest lower step in the scale.	Transposed with no change. SPECI not used in Europe.	**MET.TR.252 Reporting of meteorological elements** **(b)(1)** In local routine and special reports and in METAR, the visibility shall be reported in steps of 50 m when the visibility is less than 800 m; in steps of 100 m, when it is 800 m or more but less than 5 km; in kilometre steps, when the visibility is 5 km or more but less than 10 km; and it shall be given as 10 km when the visibility is 10 km or more, except when the conditions for the use of CAVOK apply. **(b)(2)** Any observed value which does not fit the reporting scale in use shall be	MET.TR

		rounded down to the nearest lower step in the scale.	
~~Note.— Specifications concerning the use of CAVOK are given in 2.2.~~	Not transposed as this Note only makes reference to provisions above that are transposed.	---	---
~~4.2.4.2 In local routine and special reports, v~~ **MET.TR.252(b)(3)** In local routine and special reports, visibility along the runway(s) shall be reported together with the units of measurement used to indicate visibility.	Transposed with no change.	**MET.TR.252(b)(3)** In local routine and special reports, visibility along the runway(s) shall be reported together with the units of measurement used to indicate visibility.	MET.TR
~~4.2.4.3 Recommendation.—~~ **AMC1 MET.TR.252(b)(1) Reporting of meteorological elements** In local routine and special reports, when instrumented systems are used for the measurement of visibility:	Transposed with no change.	**AMC1 MET.TR.252(b)(1) Reporting of meteorological elements** In local routine and special reports, when instrumented systems are used for the measurement of visibility:	MET.TR
(a) if the visibility is observed from more than one location along the runway as specified in ~~Chapter 4, 4.6.2.2~~ AMC1 MET.TR.255(c)(1)(b), 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	Transposed with no change. Only reference amendments.	**(a)** if the visibility is observed from more than one location along the runway as specified in AMC1 MET.TR.255(c)(1)(b), 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	MET.TR
(b) when there is more than one runway in use and the visibility is observed related to these	Transposed with no change.	**(b)** when there is more than one runway in use and the visibility is observed related to	MET.TR

runways, the available visibility values for each runway should be reported, and the runways to which the values refer should be indicated.		these runways, the available visibility values for each runway should be reported, and the runways to which the values refer should be indicated.	
~~4.2.4.4 Recommendation.~~ **AMC2 MET.TR.252(b)(1) Reporting of meteorological elements** In METAR~~ and SPECI~~, visibility should be reported as prevailing visibility,~~ as defined in Chapter 1~~. When the visibility is not the same in different directions and	No SPECI in Europe; Prevailing visibility is defined in article 2 of the Regulation.	**AMC2 MET.TR.252(b)(1) Reporting of meteorological elements** In METAR, visibility should be reported as prevailing visibility. When the visibility is not the same in different directions and	MET.TR
(a) when the lowest visibility is different from the prevailing visibility, and 1) less than 1 500 m or 2) less than 50 per cent 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	Transposed with no change.	**(a)** when the lowest visibility is different from the prevailing visibility, and 1) less than 1 500 m or 2) less than 50 per cent 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	MET.TR
(c~~b~~) 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.	Transposed with no change.	**(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.	MET.TR

~~4.3~~ **MET.TR.255 Observing meteorological elements** **(c) Runway visual range**	---	**MET.TR.255 Observing meteorological elements** **(c) Runway visual range**	MET.TR
~~4.3.1~~ (1) Siting		**(1)** Siting	
~~4.3.1.1 Recommendation. —~~ **AMC1 MET.TR.250(c) Observing meteorological elements** Runway visual range (RVR) should be assessed: (a) at a height of approximately 2.5 m (7.5 ft) above the runway for instrumented systems or assessed at a height of approximately 5 m (15 ft) above the runway by a human observer; and~~.~~	Transposed with no change.	**AMC1 MET.TR.255(c) Observing meteorological elements** Runway visual range (RVR) should be assessed: **(a)** at a height of approximately 7.5 ft (2.5 m) above the runway for instrument systems or assessed at a height of approximately 15 ft (5 m) above the runway by a human observer; and **(b)** at a lateral distance from the runway centre line of not more than 120 m.	MET.TR
~~4.3.1.2 Recommendation. — Runway visual range should be assessed~~ (b) at a lateral distance from the runway centre line of not more than 120 m. **AMC2 MET.TR.255(c)(1) Observing meteorological elements** **(a)** The site for observations to be representative of the touchdown zone should be located about300 m along the runway from the threshold. **(b)** The sites for observations to be representative of the mid-point and stop-end of the runway should be located at a distance of 1	Transposed with no change. Editorial and structural changes only.	**AMC2 MET.TR.255(c)(1) Observing meteorological elements** **(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 sites 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	MET.TR

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.		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.	
~~4.3.2~~ (2) Instrumented systems	Transposed with no change.	**(2)** Instrumented systems	MET.TR
~~Note.~~ **GM1 MET.TR.255 (c)(2) Observing meteorological elements** **(a)** Since accuracy can vary from one instrument design to another, performance characteristics are to be checked before selecting an instrument for assessing Runway Visual Range. **(b)** The calibration of a forward-scatter meter has to be traceable and verifiable to a transmissometer standard, the accuracy of which 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).	Transposed with no change.	**GM1 MET.TR.255 (c)(2) Observing meteorological elements** **(a)** Since accuracy can vary from one instrument design to another, performance characteristics are to be checked before selecting an instrument for assessing runway visual range. **(b)** The calibration of a forward-scatter meter has to be traceable and verifiable to a transmissometer standard, the accuracy of which 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).	MET.TR
~~4.3.2.1~~ **MET.TR.255 Observing**	CAT I added for clarrificaion	**MET.TR.255 Observing meteorological**	MET.TR

meteorological elements **(c)(2)** Instrumented systems based on transmissometers or forward-scatter meters shall be used to assess runway visual range on runways intended for Category II and III instrument approach and landing operations, and for Category I instrument approach and landing operations as determined by the competent authority.		**elements** **(c)(2)** Instrumented systems based on transmissometers or forward-scatter meters shall be used to assess runway visual range on runways intended for Category II and III instrument approach and landing operations, and for Category I instrument approach and landing operations as determined by the competent authority.	
~~4.3.2.2 Recommendation. Instrumented systems based on transmissometers or forward-scatter meters should be used to assess runway visual range on runways intended for Category I instrument approach and landing operations.~~	Not transposed as this is now covered in MET.TR.255(c)(2)	---	---
~~4.3.3~~ (3) Display	---	**(3)** Display	MET.TR
~~4.3.3.1~~ **MET.TR.255 Observing meteorological elements** **(c)(3)(i)** Where runway visual range is determined by instrumented systems, one display or more, if required, shall be located in the meteorological station with corresponding displays in the appropriate air traffic services units. **(c)(3)(ii)** The displays in the meteorological station and in the air traffic services units shall be related to the same sensors, and where separate sensors are required, ~~as specified in 4.3.1.2~~, the displays shall be clearly marked to	Transposed with no change. Editorial change only: the reference is not needed anymore.	**MET.TR.255 Observing meteorological elements** **(c)(3)(i)** Where runway visual range is determined by instrumented systems, one display or more, if required, shall be located in the meteorological station with corresponding displays in the appropriate air traffic services units. **(c)(3)(ii)** The displays in the meteorological station and in the air traffic services units shall be related to the same sensors, and where separate sensors are required, the displays shall be clearly	MET.TR

identify the runway and section of runway monitored by each sensor.		marked to identify the runway and section of runway monitored by each sensor.	
~~4.3.3.2 Recommendation.~~ **AMC1 MET.TR.255(c)(3) Observing meteorological elements** **(a)** Where ~~runway visual range~~RVR is determined by human observers, runway visual range should be reported to the appropriate local air traffic services units, whenever there is a change in the value to be reported in accordance with the reporting scale ~~(except where the provisions of 3.2.2 a) or b) apply)~~. **(b)** The transmission of such reports should normally be completed within 15 seconds after the termination of the observation.	Transposed with no change. The deleted text makes reference to a provision that has been transposed into guidance material.	**AMC1 MET.TR.255(c)(3) Observing meteorological elements** **(a)** Where RVR is determined by human observers, runway visual range should be reported to the appropriate local air traffic services units, whenever there is a change in the value to be reported in accordance with the reporting scale (except where the provisions of MET.OR.251 apply). **(b)** The transmission of such reports should normally be completed within 15 seconds after the termination of the observation.	MET.TR
~~4.3.4~~ (4) Averaging	---	**(4)** Averaging	MET.TR
MET.TR.255 Observing meteorological elements **(c)(4)(i)** Where instrumented systems are used for the assessment of runway visual range, their output shall be updated at least every 60 seconds to permit the provision of current, representative values. **(c)(4)**(ii) The averaging period for runway visual range values shall be:	Transposed with no change.	**MET.TR.255 Observing meteorological elements** **(c)(4)(i)** Where instrumented systems are used for the assessment of runway visual range, their output shall be updated at least every 60 seconds to permit the provision of current, representative values. **(c)(4)(ii)** The averaging period for runway visual range values shall be:	MET.TR
(A~~a~~) 1 minute for local routine and special reports and for runway visual range displays in	Transposed with no change.	**(A)** 1 minute for local routine and special reports and for runway visual range	MET.TR

air traffic services units; and		displays in air traffic services units; and	
(B~~b~~) 10 minutes for METAR ~~and SPECI,~~ except that when the 10-minute period immediately preceding the observation includes a marked discontinuity in runway visual range values, only those values occurring after the discontinuity shall be used for obtaining mean values.	Transposed with no change. SPECI not used in Europe.	**(B)** 10 minutes for METAR, except that when the 10-minute period immediately preceding the observation includes a marked discontinuity in runway visual range values, only those values occurring after the discontinuity shall be used for obtaining mean values.	MET.TR
~~Note.~~ **GM1 MET.TR.255(c)(4)(ii)(B) Observing meteorological elements** A marked discontinuity occurs when there is an abrupt and sustained change in runway visual range, lasting at least 2 minutes, which reaches or passes through the values 800, 550, 300 and 175.	Transposed with no change.	**GM1 MET.TR.255(c)(4)(ii)(B) Observing meteorological elements** A marked discontinuity occurs when there is an abrupt and sustained change in runway visual range, lasting at least 2 minutes, which reaches or passes through the values 800, 550, 300 and 175.	MET.TR
~~4.3.5~~ **(5)** Runway light intensity	---	**(5)** Runway light intensity	MET.TR
~~Recommendation.~~ **AMC1 MET.TR.255(c)(2) Observing meteorological elements** **(b)** When instrumented systems are used for the assessment of ~~runway visual range~~RVR, computations should be made separately for each available runway. **(c)** ~~Runway Visual Range~~ RVR should not be computed for a light intensity of 3 per cent 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:	Transposed with no change.	**AMC1 MET.TR.255(c)(2) Observing meteorological elements** **(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 per cent or less of the maximum light intensity available on a runway. **(d)** For local routine and special reports,	MET.TR

		the light intensity to be used for the computation should be:	
(1~~a~~) for a runway with the lights switched on, the light intensity actually in use on that runway; and	Transposed with no change.	**(1)** for a runway with the lights switched on, the light intensity actually in use on that runway; and	MET.TR
(**2~~b~~**) 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.	Transposed with no change.	**(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.	MET.TR
(e) In METAR ~~and SPECI,~~ the runway visual range should be based on the maximum light intensity available on the runway.	Transposed with no change. SPECI not used in EU rules.	**(e)** In METAR, the runway visual range should be based on the maximum light intensity available on the runway.	MET.TR
~~Note.~~ **GM1 MET.TR.255(c)(1) Observing meteorological elements** ~~Guidance on the conversion of instrumented readings into runway visual range is given at Attachment D.~~ A detailed understanding of the assessment of RVR is described in ICAO Doc 9328 Manual on RVR – Observing and reporting practices.	The reference to the ICAO Doc is considered more appropriate to refer to provide guidance on the conversion of instrumented readings into RVR.	**GM1 MET.TR.255(c)(1) Observing meteorological elements** Table and figure are reproduced here.	MET.TR
~~4.3.6 Reporting~~ **MET.TR.252 Reporting of meteorological elements**	Transposed with no change.	**MET.TR.252 Reporting of meteorological elements**	MET.TR
~~4.3.6.1~~ **MET.TR.252 Reporting of meteorological elements** **(c)(1)** In local routine and special reports and in	Transposed with no change. SPECI not used in Europe.	**MET.TR.252 Reporting of meteorological elements** **(c)(1)** In local routine and special reports	MET.TR

METAR ~~and SPECI~~, the runway visual range shall be reported in steps of 25 m when the runway visual range is less than 400 m; in steps of 50 m when it is between 400 m and 800 m; and in steps of 100 m when the runway visual range is more than 800 m. **(c)(2)** Any observed value which does not fit the reporting scale in use shall be rounded down to the nearest lower step in the scale.		and in METAR, the runway visual range shall be reported in steps of 25 m when the runway visual range is less than 400 m; in steps of 50 m when it is between 400 m and 800 m; and in steps of 100 m when the runway visual range is more than 800 m. **(c)(2)** Any observed value which does not fit the reporting scale in use shall be rounded down to the nearest lower step in the scale.	
~~4.3.6.2 RECOMMENDATION.~~ **AMC1 MET.TR.252(c)(1) Reporting of meteorological elements** **(a)** ~~Fifty~~50 metres should be considered the lower limit and 2 000 metres the upper limit for runway visual range. **(b)** Outside of these limits, local routine and special reports and METAR ~~and SPECI~~ should merely indicate that the runway visual range is less than 50 m or more than 2 000 m.	Transposed with no change. SPECI not used in Europe.	**AMC1 MET.TR.252(c)(1) Reporting of meteorological elements** **(a)** 50 metres should be considered the lower limit and 2 000 metres the upper limit for runway visual range. **(b)** Outside of these limits, local routine and special reports and METAR should merely indicate that the runway visual range is less than 50 m or more than 2 000 m.	MET.TR
~~4.3.6.3~~ **MET.TR.252(c)(3)** In local routine and special reports and in METAR ~~and SPECI~~:	Transposed with no change. SPECI not used in Europe.	**MET.TR.252(c)(3)** In local routine and special reports and in METAR:	MET.TR
(i~~a~~) when runway visual range is above the maximum value that can be determined by the system in use, it shall be reported using the abbreviation "ABV" in local routine and special reports and the abbreviation "P" in METAR ~~and~~	Transposed with no change. SPECI not used in Europe.	**(i)** when runway visual range is above the maximum value that can be determined by the system in use, it shall be reported using the abbreviation 'ABV' in local routine and special reports and the abbreviation 'P' in	MET.TR

~~SPECI,~~ followed by the maximum value that can be determined by the system; and		METAR followed by the maximum value that can be determined by the system; and	
(ii~~b~~) when the runway visual range is below the minimum value that can be determined by the system in use, it shall be reported using the abbreviation "BLW" in local routine and special reports and the abbreviation "M" in METAR ~~and SPECI~~, followed by the minimum value that can be determined by the system.	Transposed with no change. SPECI not used in Europe.	**(ii)** when the runway visual range is below the minimum value that can be determined by the system in use, it shall be reported using the abbreviation 'BLW' in local routine and special reports and the abbreviation 'M' in METAR, followed by the minimum value that can be determined by the system.	MET.TR
~~4.3.6.4~~ **MET.TR.252(c)(4)** In local routine and special reports:	Transposed with no change.	**MET.TR.252(c)(4)** In local routine and special reports:	MET.TR
(~~a~~i) the units of measurement used shall be included;	Transposed with no change.	**(i)** the units of measurement used shall be included;	MET.TR
(~~b~~ii) if runway visual range is observed from only one location along the runway, i.e. the touchdown zone, it shall be included without any indication of location;	Transposed with no change.	**(ii)** if runway visual range is observed from only one location along the runway, i.e. the touchdown zone, it shall be included without any indication of location;	MET.TR
(~~c~~iii) if the runway visual range is observed from more than one location along the runway, the value representative of the touchdown zone shall be reported first, followed by the values representative of the mid-point and stop-end and the locations for which these values are representative shall be indicated; and	Transposed with no change.	**(iii)** if the runway visual range is observed from more than one location along the runway, the value representative of the touchdown zone shall be reported first, followed by the values representative of the mid-point and stop-end and the locations for which these values are representative shall be indicated; and	MET.TR
(~~d~~iv) when there is more than one runway in use, the available runway visual range values for	Transposed with no change.	**(iv)** when there is more than one runway in use, the available runway visual range	MET.TR

each runway shall be reported and the runways to which the values refer shall be indicated.		values for each runway shall be reported and the runways to which the values refer shall be indicated.	
~~4.3.6.5 Recommendation.~~ **AMC1 MET.TR.252(c)(4) Reporting of meteorological elements** In METAR ~~and SPECI:~~	---	**AMC1 MET.TR.252(c)(4) Reporting of meteorological elements** In METAR:	MET.TR
(a) only the value representative of the touchdown zone should be reported and no indication of location on the runway should be included; and	Transposed with no change.	**(a)** only the value representative of the touchdown zone should be reported and no indication of location on the runway should be included; and	MET.TR
(b) where there is more than one runway available for landing, touchdown zone runway visual range 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.	Transposed with no change.	**(b)** where there is more than one runway available for landing, touchdown zone runway visual range 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.	MET.TR
~~4.3.6.6 Recommendation.~~ **AMC1 MET.TR.252(c)(3) Reporting of meteorological elements** **(a)** In METAR ~~and SPECI~~ when instrumented systems are used for the assessment of runway visual range, the variations in runway visual range during the 10-minute period immediately preceding the observation should be included.~~:~~	Transposed with no change. SPECI not used in EU rules.	**AMC1 MET.TR.252(c)(3) Reporting of meteorological elements** **(a)** In METAR when instrumented systems are used for the assessment of runway visual range, the variations in runway visual range during the 10-minute period immediately preceding the observation should be included.	MET.TR
(~~a~~**b**) ~~i~~If the runway visual range values during the 10-minute period have shown a distinct	Transposed with no change.	**(b)** If the runway visual range values during the 10-minute period have shown a	MET.TR

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. **(c)** When the variation of the runway visual range values shows an upward or downward tendency, this should be indicated by the abbreviation "U" or "D", respectively. In circumstances when actual fluctuations during the 10-minute period show no distinct tendency, this should be indicated using the abbreviation "N". **(d)** When indications of tendency are not available, no abbreviations should be included.~~;~~		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. **(c)** When the variation of the runway visual range values shows an upward or downward tendency, this should be indicated by the abbreviation 'U' or 'D', respectively. In circumstances when actual fluctuations during the 10-minute period show no distinct tendency, this should be indicated using the abbreviation 'N'. **(d)** When indications of tendency are not available, no abbreviations should be included.	
~~4.4~~ **MET.TR.255 Observing meteorological elements** **(d) Present weather at the aerodrome and it's vicinity**	---	**MET.TR.255 Observation of meteorological elements** **(d) Present weather at the aerodrome and it's vicinity**	MET.TR
~~4.4.1~~ **(2)** Siting	Transposed with no change.	**(2)** Siting	MET.TR
~~Recommendation.~~ ~~–~~ **AMC1 MET.TR.255(d)(2) Observing meteorological elements** When instrumented systems are used for observing present weather phenomena listed under AMC1 MET.TR.255(d)(1)~~4.4.2.3, 4.4.2.5 and~~, AMC1 MET.TR.252(d)(3)(iii)~~4.4.2.6~~, and AMC3 MET.TR.252(d)(3)(i), representative information should be obtained by the use of	Transposed with no change. Reference changes only.	**AMC1 MET.TR.255(d)(2) Observation of meteorological elements** When instrumented systems are used for observing present weather phenomena listed under AMC1 MET.TR.255(d)(1), AMC1 MET.TR.252(d)(3)(iii) and AMC3 MET.TR.252(d)(3)(i), representative information should be obtained by the use	MET.TR

sensors appropriately sited.		of sensors appropriately sited.	
~~4.4.2~~ (3) Reporting	Transposed with no change.	**(3)** Reporting	MET.TR
~~4.4.2.1~~ **MET.TR.252 Observing meteorological elements** **(d)(1)** In local routine and special reports and METAR, observed present weather phenomena shall be reported in terms of type and characteristics and qualified with respect to intensity, as appropriate.	Transposed with no change.	**MET.TR.252 Observation of meteorological elements** **(d)(1)** In local routine and special reports and METAR, observed present weather phenomena shall be reported in terms of type and characteristics and qualified with respect to intensity, as appropriate.	MET.TR
~~4.4.2.2~~ **(d)(2)** In METAR ~~and SPECI~~, observed present weather phenomena shall be reported in terms of type and characteristics and qualified with respect to intensity or proximity to the aerodrome, as appropriate.	Transposed with no change. SPECI not used in Europe.	**(d)(2)** In METAR, observed present weather phenomena shall be reported in terms of type and characteristics and qualified with respect to intensity or proximity to the aerodrome, as appropriate.	MET.TR
~~4.4.2.3 Recommendation.~~ **AMC1 MET.TR.252(d)(1) Reporting of meteorological elements** **(b)** In local routine and special reports and in METAR ~~and SPECI,~~ 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:	Transposed with no change. SPECI not used in Europe.	**AMC1 MET.TR.252(d)(1) Reporting of meteorological elements** **(b)** 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:	MET.TR
(a) Precipitation	Transposed with no change.	**(1)** Precipitation	MET.TR
Drizzle DZ	Transposed with no change.	Drizzle DZ	MET.TR

Rain RA	Transposed with no change.	Rain RA	MET.TR
Snow SN	Transposed with no change.	Snow SN	MET.TR
Snow grains SG	Transposed with no change.	Snow grains SG	MET.TR
Ice pellets PL	Transposed with no change.	Ice pellets PL	MET.TR
Hail GR — Reported when diameter of largest hailstones is 5 mm or more.	Transposed with no change.	Hail GR — Reported when diameter of largest hailstones is 5 mm or more.	MET.TR
Small hail and/or snow pellets GS — Reported when diameter of largest hailstones is less than 5 mm;	Transposed with no change.	Small hail and/or snow pellets GS — Reported when diameter of largest hailstones is less than 5 mm;	MET.TR
b) Obscurations (hydrometeors)	Transposed with no change.	**(2)** Obscurations (hydrometeors)	MET.TR
Fog FG — Reported when visibility is less than 1 000 m, except when qualified by "MI", "BC", "PR" or "VC" (see 4.4.2.6 and 4.4.2.7).	Transposed with no change.	Fog FG — Reported when visibility is less than 1 000 m, except when qualified by 'MI', 'BC', 'PR' or 'VC' (see 4.4.2.6 and 4.4.2.7).	MET.TR
Mist BR — Reported when visibility is at least 1 000 m but not more than 5 000 m;	Transposed with no change.	Mist BR — Reported when visibility is at least 1 000 m but not more than 5 000 m;	MET.TR
c) Obscurations (lithometeors) — The following should be used only when the obscuration consists predominantly of	Transposed with no change.	**(3)** Obscurations (lithometeors) — The following should be used only when the obscuration consists predominantly of	MET.TR

lithometeors and the visibility is 5 000 m or less except "SA" when qualified by "DR" (see 4.4.2.6) and volcanic ash.		lithometeors and the visibility is 5 000 m or less except 'SA' when qualified by 'DR' (see 4.4.2.6) and volcanic ash.	
Sand SA	Transposed with no change.	Sand SA	MET.TR
Dust (widespread) DU	Transposed with no change.	Dust (widespread) DU	MET.TR
Haze HZ	Transposed with no change.	Haze HZ	MET.TR
Smoke FU	Transposed with no change.	Smoke FU	MET.TR
Volcanic ash VA	Transposed with no change.	Volcanic ash VA	MET.TR
d) Other phenomena	Transposed with no change.	**(4)** Other phenomena	MET.TR
Dust/sand whirls (dust devils) PO	Transposed with no change.	Dust/sand whirls (dust devils) PO	MET.TR
Squall SQ	Transposed with no change.	Squall SQ	MET.TR
Funnel cloud (tornado or waterspout) FC	Transposed with no change.	Funnel cloud (tornado or waterspout) FC	MET.TR
Duststorm DS	Transposed with no change.	Duststorm DS	MET.TR
Sandstorm SS	Transposed with no change.	Sandstorm SS	MET.TR
~~4.4.2.4 Recommendation.~~ **AMC2 MET.TR.252(d)(1) Reporting of meteorological elements** In automated local routine and special reports and METAR~~ and SPECI~~, in addition to the precipitation types listed under ~~4.4.2.3 a)~~ AMC1	Transposed with no change. SPECI not used in Europe. Reference changes only.	**AMC2 MET.TR.252(d)(1) Reporting of meteorological elements** In automated local routine and special reports and METAR, in addition to the precipitation types listed under AMC1 MET.TR.252(d)(1)(a)(1), the abbreviation	MET.TR

MET.TR.252(d)(1)(a)(1), the abbreviation UP should be used for unidentified precipitation when the type of precipitation cannot be identified by the automatic observing system.		UP should be used for unidentified precipitation when the type of precipitation cannot be identified by the automatic observing system.	
~~4.4.2.5~~ **AMC1 MET.TR.252(d)(3)(i) Reporting of meteorological elements** In local routine and special reports and in METAR ~~and SPECI~~, the following characteristics of present weather phenomena, as necessary, shall be reported, using their respective abbreviations and relevant criteria, as appropriate:	Transposed with no change. SPECI not used in Europe.	**AMC1 MET.TR.252(d)(3)(i) Reporting of meteorological elements** In local routine and special reports and in METAR, the following characteristics of present weather phenomena, as necessary, shall be reported, using their respective abbreviations and relevant criteria, as appropriate:	MET.TR
(A) Thunderstorm TS — Used to report a thunderstorm with precipitation~~ in accordance with the templates shown in Tables A3-1 and A3-2~~. When thunder is heard or lightning is detected at the aerodrome during the 10-minute period preceding the time of observation but no precipitation is observed at the aerodrome, the abbreviation "TS" shall be used without qualification.	Transposed with no change. Reference not relevant.	**(A)** Thunderstorm TS — Used to report a thunderstorm with precipitation. When thunder is heard or lightning is detected at the aerodrome during the 10-minute period preceding the time of observation but no precipitation is observed at the aerodrome, the abbreviation 'TS' shall be used without qualification.	MET.TR
(B) Freezing FZ — Supercooled water droplets or precipitation, used with types of present weather phenomena in accordance with the templates shown in ~~Tables A3-1 and A3-2~~.	Transposed with no change. References not relevant.	**(B)** Freezing FZ — Supercooled water droplets or precipitation, used with types of present weather phenomena.	MET.TR
~~Note.~~ **GM1 MET.TR.252(d)(3)(i) Reporting**	Transposed with no change.	**GM1 MET.TR.252(d)(3)(i) Reporting of**	MET.TR

of meteorological elements **(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).		**meteorological elements** **(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).	
~~4.4.2.6 Recommendation.~~ **AMC1 MET.TR.252(d)(3) Reporting of meteorological elements** In local routine and special reports and in METAR ~~and SPECI~~, the following characteristics of present weather phenomena, as necessary, should be reported, using their respective abbreviations and relevant criteria, as appropriate:	---	**AMC1 MET.TR.252(d)(3) Reporting of meteorological elements** In local routine and special reports and in METAR, the following characteristics of present weather phenomena, as necessary, should be reported, using their respective abbreviations and relevant criteria, as appropriate:	MET.TR
Shower SH — Used to report showers ~~in accordance with the templates shown in Tables A3-1 and A3-2~~. Showers observed in the vicinity of the aerodrome ~~(see 4.4.2.7)~~ should be reported as "VCSH" without qualification regarding type or intensity of precipitation.	Transposed with no change. References not relevant.	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.	MET.TR
Blowing BL	Transposed with no change.	Blowing BL	MET.TR

— Used ~~in accordance with the templates shown in Tables A3-1 and A3-2~~ with types of present weather phenomena raised by the wind to a height of 2 m (6 ft) or more above the ground.	References not relevant.	— Used with types of present weather phenomena raised by the wind to a height of 2 m (6 ft) or more above the ground.	
Low drifting DR — Used ~~in accordance with the templates shown in Tables A3-1 and A3-2~~ with types of present weather phenomena raised by the wind to less than 2 m (6 ft) above ground level.	Transposed with no change. References not relevant.	Low drifting DR — Used with types of present weather phenomena raised by the wind to less than 2 m (6 ft) above ground level.	MET.TR
Shallow MI — Less than 2 m (6 ft) above ground level.	Transposed with no change.	Shallow MI — Less than 2 m (6 ft) above ground level.	MET.TR
Patches BC — Fog patches randomly covering the aerodrome.	Transposed with no change.	Patches BC — Fog patches randomly covering the aerodrome.	MET.TR
Partial PR — A substantial part of the aerodrome covered by fog while the remainder is clear.	Transposed with no change.	Partial PR — A substantial part of the aerodrome covered by fog while the remainder is clear.	MET.TR
~~4.4.2.7 Recommendation. —~~ **AMC2 MET.TR.252(d)(3) Reporting of meteorological elements** In local routine and special reports ~~and in METAR and SPECI~~, the relevant intensity or, as appropriate, the proximity to the aerodrome of the reported present weather phenomena should	This recommendation is amended as this paragraph is not applicable to METAR.	**AMC2 MET.TR.252(d)(3) Reporting of meteorological elements** In local routine and special reports, the relevant intensity or, as appropriate, the proximity to the aerodrome of the reported present weather phenomena should be indicated as follows:	MET.TR

be indicated as follows:			
(local routine and special reports) ~~(METAR and SPECI~~)	No SPECI in Europe.	(local routine and special reports)	MET.TR
Light FBL —	Transposed with no change.	Light FBL —	MET.TR
Moderate MOD (no indication)	Transposed with no change.	Moderate MOD (no indication)	MET.TR
Heavy HVY +	Transposed with no change.	Heavy HVY +	MET.TR
Used with types of present weather phenomena ~~in accordance with the templates shown in Tables A3-1 and A3-2~~. Light intensity should be indicated only for precipitation.	Transposed with no change. Reference considered not relevant.	Used with types of present weather phenomena. Light intensity should be indicated only for precipitation.	MET.TR
Vicinity VC — Between approximately 8 and 16 km of the aerodrome reference point and used only in METAR ~~and SPECI~~ with present weather ~~in accordance with the template shown in Table A3-2~~ when not reported under ~~4.4.2.5 and 4.4.2.6~~ AMC1 MET.TR.252(d)(3) and AMC3 MET.TR.255(d)(3)(i)	Transposed with no change. References changes only.	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.252(d)(3) and AMC3 MET.TR.255(d)(3)(i)	MET.TR
~~4.4.2.8~~ **MET.TR.252 Reporting of meteorological elements** **(d)(4)** In local routine and special reports and in METAR ~~and SPECI~~:	Transposed with no change. No SPECI used in EU rules..	**MET.TR.252 Reporting of meteorological elements** **(d)(4)** In local routine and special reports and in METAR:	MET.TR
(i~~a~~) one ~~or more,~~ up to a maximum of three, of the present weather abbreviations ~~given in~~	Transposed with no change.	**(i)** one, up to a maximum of three, of the present weather abbreviations shall be	MET.TR

~~4.4.2.3 and 4.4.2.5 and 4.4.2.6~~ shall be used, as necessary, together with an indication, where appropriate, of the characteristics and intensity or proximity to the aerodrome, so as to convey a complete description of the present weather of significance to flight operations;		used, as necessary, together with an indication, where appropriate, of the characteristics and intensity or proximity to the aerodrome, so as to convey a complete description of the present weather of significance to flight operations;	
(ii~~b~~) the indication of intensity or proximity, as appropriate, shall be reported first followed respectively by the characteristics and the type of weather phenomena; and	Transposed with no change.	**(ii)** the indication of intensity or proximity, as appropriate, shall be reported first followed respectively by the characteristics and the type of weather phenomena; and	
(iii~~c~~) where two different types of weather are observed, they shall be reported in two separate groups, where the intensity or proximity indicator refers to the weather phenomenon which follows the indicator. However, different types of precipitation occurring at the time of observation shall be reported as one single group with the dominant type of precipitation reported first and preceded by only one intensity qualifier which refers to the intensity of the total precipitation.	Transposed with no change.	**(iii)** where two different types of weather are observed, they shall be reported in two separate groups, where the intensity or proximity indicator refers to the weather phenomenon which follows the indicator. However, different types of precipitation occurring at the time of observation shall be reported as one single group with the dominant type of precipitation reported first and preceded by only one intensity qualifier which refers to the intensity of the total precipitation.	MET.TR
~~4.4.2.9 **Recommendation**~~ **AMC1 MET.TR.252(d)(1) Reporting of meteorological elements** **(a)(7)** In automated local routine and special reports and METAR, the present weather should be replaced by "//" when the present weather cannot be observed by the automatic observing system due to a temporary failure of the	Transposed with no change.	**AMC1 MET.TR.252(d)(1) Reporting of meteorological elements** **(a)(7)** In automated local routine and special reports and METAR, the present weather should be replaced by '//' when the present weather cannot be observed by the automatic observing system due to a	MET.TR

system/sensor.		temporary failure of the system/sensor.	
~~4.5~~ **MET.TR.255 Observation of meteorological elements** **(e) Clouds**	---	**MET.TR.255 Observation of meteorological elements** **(e) Clouds**	MET.TR
~~4.5.1~~ (2) Siting	Transposed with no change.	(2) Siting	MET.TR
~~Recommendation.~~ **AMC1 MET.TR.255(e)(2) Observing of meteorological elements** **(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 cloud amount and height of cloud base should be sited to give the best practicable indications of the height of cloud base and cloud amount 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 900 to 1 200 m (3 000 to 4 000 ft) from the landing threshold at the approach end of the runway.	Transposed with no change.	**AMC1 MET.TR.255(e)(2) Observing of meteorological elements** **(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 cloud amount and height of cloud base should be sited to give the best practicable indications of the height of cloud base and cloud amount 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.	MET.TR
~~Note.~~ **GM1 MET.TR.255(e)(2) Observing**	Transposed with no change.	**GM1 MET.TR.255(e)(2) Observation of**	MET.TR

meteorological elements Specifications concerning the middle marker site of an instrument landing system are given in Annex 10, Volume I, Chapter 3 and at Attachment C, Table C-5.		**meteorological elements** Specifications concerning the middle marker site of an instrument landing system are given in Annex 10, Volume I, Chapter 3 and at Attachment C, Table C-5.	
~~4.5.2~~ (3) Display		**(3)** Display	MET.TR
~~Recommendation.~~ **AMC1 MET.TR.255(e)(3) Observing meteorological elements** **(a)** When automated equipment is used for the measurement of the height of cloud base, height of cloud base display(s) should be located in the meteorological station with corresponding display(s) in the appropriate air traffic services units. **(b)** The displays in the meteorological station and in the air traffic services units should relate to the same sensor, and where separate sensors are required as specified in ~~4.5.~~ AMC1 MET.TR.255(e)(2), the displays should clearly identify the area monitored by each sensor.	Transposed with no change. References changes only.	**AMC1 MET.TR.255(e)(3) Observation of meteorological elements** **(a)** When automated equipment is used for the measurement of the height of cloud base, height of cloud base display(s) should be located in the meteorological station with corresponding display(s) in the appropriate air traffic services units. **(b)** The displays in the meteorological station and in the air traffic services units should relate to the same sensor, and where separate sensors are required as specified in AMC1 MET.TR.255(e)(2), the displays should clearly identify the area monitored by each sensor.	MET.TR
~~4.5.3~~ **MET.TR.255(e)(4)** Reference level	Transposed with no change.	**MET.TR.255(e)(4)** Reference level	MET.TR
(i) The height of cloud base shall be reported above aerodrome elevation. **(ii)** When a precision approach runway is in use which has a threshold elevation 15 m (50 ft) or more below the aerodrome elevation, local	Transposed with no change.	**(i)** The height of cloud base shall be reported above aerodrome elevation. **(ii)** When a precision approach runway is in use which has a threshold elevation 50 ft (15 m) or more below the aerodrome	MET.TR

arrangements shall be made in order that the height of cloud bases reported to arriving aircraft shall refer to the threshold elevation. **(iii)** In the case of reports from offshore structures, the height of cloud base shall be given above mean sea level.		elevation, local arrangements shall be made in order that the height of cloud bases reported to arriving aircraft shall refer to the threshold elevation. **(iii)** In the case of reports from offshore structures, the height of cloud base shall be given above mean sea level.	
~~4.5.4~~ **MET.TR.252 (e)** Reporting of meteorological elements		**MET.TR.252(e) Reporting of meteorological elements**	MET.TR
~~4.5.4.1~~ **(1)** 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). **(2)** Any observed value which does not fit the reporting scale in use shall be rounded down to the nearest lower step in the scale.	Transposed with no change. No SPECI used in Europe.	**(1)** In local routine and special reports and in METAR, the height of cloud base shall be reported in steps of 100 ft (30 m) up to 10 000 ft (3 000 m). **(2)** Any observed value which does not fit the reporting scale in use shall be rounded down to the nearest lower step in the scale.	MET.TR
~~4.5.4.2 Recommendation.~~ **AMC1 MET.TR.252(e)(1) Reporting of meteorological elements** (a) At aerodromes where low-visibility procedures are established for approach and landing, as agreed between the provider of meteorological services ~~meteorological authority~~ and the appropriate ATS ~~authority~~unit, in local routine and special reports the height of cloud base should be reported in steps of 15 m (50 ft) up to and including 90 m (300 ft) and in steps of 30 m (100 ft) between 90 m (300 ft) and 3 000 m (10 000 ft), and the vertical visibility in steps	The term 'meteorological authority' in this context refers to the meteorological provider. The term 'ATS authority' is replaced by 'ATS units' as it refers to the agreement between providers. The deleted text is a repetition of the second paragraph of 4.5.4.1 above and is used as a 'shall' in this paragraph.	**AMC1 MET.TR.252(e)(1) Reporting of meteorological elements** At aerodromes where low-visibility procedures are established for approach and landing, as agreed between the provider of meteorological services and the appropriate ATS unit, in local routine and special reports the height of cloud base should be reported 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 10 000 ft (3 000 m), and the vertical visibility in steps of 50 ft (15 m) up	MET.TR

of 15 m (50 ft) up to and including 90 m (300 ft) and in steps of 30 m (100 ft) between 90 m (300 ft) and 600 m (2 000 ft). ~~Any observed value which does not fit the reporting scale shall be rounded down to the nearest lower step in the scale.~~		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).	
~~4.5.4.3 Recommendation.~~ **AMC2 MET.TR.252(e)(1) Reporting of meteorological elements** In local routine and special reports and in METAR: ~~and SPECI:~~	Transposed with no change. SPECI not used in Europe.	**AMC2 MET.TR.252(e)(1) Reporting of meteorological elements** In local routine and special reports and in METAR:	MET.TR
(a) cloud amount should be reported using the abbreviations "FEW" (1 to 2 oktas), "SCT" (3 to 4 oktas), "BKN" (5 to7 oktas) or "OVC" (8 oktas);	Transposed with no change.	**(a)** cloud amount should be reported using the abbreviations 'FEW' (1 to 2 oktas), 'SCT' (3 to 4 oktas), 'BKN' (5 to7 oktas) or 'OVC' (8 oktas);	MET.TR
(b) cumulonimbus clouds and towering cumulus clouds should be indicated as "CB" and "TCU", respectively;	Transposed with no change.	**(b)** cumulonimbus clouds and towering cumulus clouds should be indicated as 'CB' and 'TCU', respectively;	MET.TR
(c) the vertical visibility should be reported in steps of 30 m (100 ft) up to 600 m (2 000 ft);	Transposed with no change.	**(c)** the vertical visibility should be reported in steps of 30 m (100 ft) up to 600 m (2 000 ft);	MET.TR
(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;	Transposed with no change.	**(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;	MET.TR

(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:	Transposed with no change.	**(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:	MET.TR
(1) the lowest layer or mass, regardless of amount to be reported as FEW, SCT, BKN or OVC as appropriate;	Transposed with no change.	**(1)** the lowest layer or mass, regardless of amount to be reported as FEW, SCT, BKN or OVC as appropriate;	MET.TR
(2) the next layer or mass, covering more than 2/8 to be reported as SCT, BKN or OVC as appropriate;	Transposed with no change.	**(2)** the next layer or mass, covering more than 2/8 to be reported as SCT, BKN or OVC as appropriate;	MET.TR
(3) the next higher layer or mass, covering more than 4/8 to be reported as BKN or OVC as appropriate; and	Transposed with no change.	**(3)** the next higher layer or mass, covering more than 4/8 to be reported as BKN or OVC as appropriate; and	MET.TR
(4) cumulonimbus and/or towering cumulus clouds, whenever observed and not reported in 1) to 3);	Transposed with no change.	**(4)** cumulonimbus and/or towering cumulus clouds, whenever observed and not reported in 1) to 3);	MET.TR
(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	Transposed with no change.	**(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	MET.TR
(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	Transposed with no change.	**(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	MET.TR

cumulonimbus only.		reported as cumulonimbus only.	
~~Note.— Towering cumulus indicates cumulus congestus clouds of great vertical extent.~~	Not transposed – it is not considered as adding any value to the understanding of the text.	---	---
~~4.5.4.4~~ **MET.TR.252(e) Reporting of meteorological elements** (3) In local routine and special reports:		**MET.TR.252(e) Reporting of meteorological elements** **(3)** In local routine and special reports:	MET.TR
(~~a~~i) the units of measurement used for the height of cloud base and vertical visibility shall be indicated; ~~and~~	Transposed with no change.	**(i)** the units of measurement used for the height of cloud base and vertical visibility shall be indicated;	MET.TR
(~~b~~ii) when there is more than one runway in use and the heights of cloud bases are observed by instruments for these runways, the available heights of cloud bases for each runway shall be reported and the runways to which the values refer shall be indicated.	Transposed with no change.	**(ii)** when there is more than one runway in use and the heights of cloud bases are observed by instruments for these runways, the available heights of cloud bases for each runway shall be reported and the runways to which the values refer shall be indicated.	MET.TR
~~4.5.4.5 Recommendation.—~~ **AMC1 MET.TR.252(e)(3) Reporting of meteorological elements** In automated local routine and special reports and METAR ~~and SPECI~~:	Transposed with no change. SPECI not used in EU rules.	**AMC1 MET.TR.252(e)(3) Reporting of meteorological elements** In automated local routine and special reports and METAR:	MET.TR
(a) when the cloud type cannot be observed by the automatic observing system, the cloud type	Transposed with no change.	**(a)** when the cloud type cannot be observed by the automatic observing system, the cloud type in each cloud group	MET.TR

in each cloud group should be replaced by "///";		should be replaced by '///';	
(b) when no clouds are detected by the automatic observing system, it should be indicated by using the abbreviation "NCD"; and	Transposed with no change.	**(b)** when no clouds are detected by the automatic observing system, it should be indicated by using the abbreviation 'NCD'; and	MET.TR
(c) when cumulonimbus clouds or towering cumulus clouds are detected by the automatic observing system 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 "///".	Transposed with no change.	**(c)** when cumulonimbus clouds or towering cumulus clouds are detected by the automatic observing system 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 '///'.	MET.TR
(d) the vertical visibility should be replaced by "///" when the sky is obscured and the value of the vertical visibility cannot be determined by the automatic observing system due to a temporary failure of the system/sensor.		**d)** the vertical visibility should be replaced by '///' when the sky is obscured and the value of the vertical visibility cannot be determined by the automatic observing system due to a temporary failure of the system/sensor.	MET.TR
~~4.6~~ **MET.TR.255 Observing meteorological elements** **(f) Air temperature and dew-point temperature**	Transposed with no change.	**MET.TR.255 Observation of meteorological elements** **(f) Air temperature and dew-point temperature**	MET.TR
~~4.6.1 Display~~	---	---	---
~~Recommendation.~~ **AMC1 MET.TR.255(f) Observing of meteorological elements** **(b)** When automated equipment is used for the	Transposed with no change.	**AMC1 MET.TR.255(f) Observing of meteorological elements** **(b)** When automated equipment is used for	MET.TR

measurement of air temperature and dew-point temperature, air temperature and dew-point temperature displays should be located in the meteorological station with corresponding displays in the appropriate ATS ~~air traffic services~~ units. **(c)** The displays in the meteorological station and in the air traffic services units should relate to the same sensors.		the measurement of air temperature and dew-point temperature, air temperature and dew-point temperature displays should be located in the meteorological station with corresponding displays in the appropriate ATS units. **(c)** The displays in the meteorological station and in the air traffic services units should relate to the same sensors.	
~~4.6.2~~ **MET.TR.252 Reporting of meteorological elements** ~~Reporting~~		**MET.TR.252 Reporting of meteorological elements**	MET.TR
~~4.6.2.1~~ **(f)(1)** In local routine and special reports and in METAR ~~and SPECI~~, the air temperature and the dew-point temperature shall be reported in steps of whole degrees Celsius. **(f)(2)** Any observed value which does not fit the reporting scale in use shall be rounded to the nearest whole degree Celsius, with observed values involving 0.5° rounded up to the next higher whole degree Celsius.	Transposed with no change. NO SPECI used in Europe.	**(f)(1)** In local routine and special reports and in METAR, the air temperature and the dew-point temperature shall be reported in steps of whole degrees Celsius. **(f)(2)** Any observed value which does not fit the reporting scale in use shall be rounded to the nearest whole degree Celsius, with observed values involving 0.5° rounded up to the next higher whole degree Celsius.	MET.TR
~~4.6.2.2~~ **(f)(3)** In local routine and special reports and in METAR ~~and SPECI~~, a temperature below 0°C shall be identified.	Transposed with no change. NO SPECI used in Europe.	**(f)(3)** In local routine and special reports and in METAR, a temperature below 0°C shall be identified.	MET.TR
~~4.7~~ **MET.TR.255 Observing meteorological elements** **(g) Atmospheric pressure**		**MET.TR.255 Observation of meteorological elements** **(g) Atmospheric pressure**	MET.TR

~~4.7.1~~ **(2)** Display	No change	**(2)** Display	MET.TR
MET.TR.255 Observing meteorological elements (i) When automated equipment is used for the measurement of atmospheric pressure, QNH and, if required in accordance with MET.TR.255 (f) ~~4.7.3.2 b)~~, QFE displays relating to the barometer shall be located in the meteorological station with corresponding displays in the appropriate air traffic services units. (ii) When QFE values are displayed for more than one runway, as specified in MET.TR.255 (g)~~4.7.3.2 d)~~, the displays shall be clearly marked to identify the runway to which the QFE value displayed refers.	Transposed with no change. Reference changes only.	**MET.TR.255 Observation of meteorological elements** **(i)** When automated equipment is used for the measurement of atmospheric pressure, QNH and, if required in accordance with MET.TR.255 (f), QFE displays relating to the barometer shall be located in the meteorological station with corresponding displays in the appropriate air traffic services units. **(ii)** When QFE values are displayed for more than one runway, as specified in MET.TR.255 (g), the displays shall be clearly marked to identify the runway to which the QFE value displayed refers.	MET.TR
~~4.7.2~~ **(3)** Reference level		**(3)** Reference level	MET.TR
~~Recommendation.~~ **AMC1 MET.TR.255(g)(3) Observing meteorological elements** **(a)** The reference level for the computation of QFE should be the aerodrome elevation. **(b)** For non-precision approach runways, the thresholds of which are 2 m (7 ft) or more below the aerodrome elevation, and for precision approach runways, the QFE, if required, should refer to the relevant threshold elevation.	Transposed with no change	**AMC1 MET.TR.255(g)(3) Observation of meteorological elements** **(a)** The reference level for the computation of QFE should be the aerodrome elevation. **(b)** For non-precision approach runways, the thresholds of which 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.	MET.TR

~~4.7.3~~ **MET.TR.252 Reporting of meteorological elements** ~~Reporting~~	Transposed with no change	**MET.TR.252 Reporting of meteorological elements**	MET.TR
~~4.7.3.1~~ **(g)(1)** ~~For~~ In local routine and special reports and in METAR ~~and SPECI~~, QNH and QFE shall be computed in tenths of hectopascals and reported therein in steps of whole hectopascals, using four digits. **(g)(2)** Any observed value which does not fit the reporting scale in use shall be rounded down to the nearest lower whole hectopascal.	Transposed with no change. No SPECI used in Europe.	**(g)(1)** In local routine and special reports and in METAR, QNH and QFE shall be computed in tenths of hectopascals and reported therein in steps of whole hectopascals, using four digits. **(g)(2)** Any observed value which does not fit the reporting scale in use shall be rounded down to the nearest lower whole hectopascal.	MET.TR
~~4.7.3.2~~ **(g)(3)** In local routine and special reports:	Transposed with no change.	**(g)(3)** In local routine and special reports:	MET.TR
(~~a~~i) QNH shall be included;	Transposed with no change.	**(i)** QNH shall be included;	MET.TR
(~~b~~ii) QFE shall be included if required by users or, if so agreed locally between the provider of meteorological services and the air traffic services unit~~meteorological and air traffic services authorities~~ and operators concerned, on a regular basis;	Changes made in order to clarify the intent of the text. In this paragraph, the term 'meteorological authority' refers to the meteorological provider. The term 'ATS authority' is replaced by 'ATS units' as it refers to the agreement between providers and not authorities in the sense of EU regulations.	**(ii)** QFE shall be included if required by users or, if so agreed locally between the provider of meteorological services and the air traffic services unit and operators concerned, on a regular basis;	MET.TR
(~~c~~iii) the units of measurement used for QNH and QFE values shall be included; and	Transposed with no change.	**(iii)** the units of measurement used for QNH and QFE values shall be included; and	MET.TR

(~~d~~iv) if QFE values are required for more than one runway, the required QFE values for each runway shall be reported and the runways to which the values refer shall be indicated.	Transposed with no change.	**(iv)** if QFE values are required for more than one runway, the required QFE values for each runway shall be reported and the runways to which the values refer shall be indicated.	MET.TR
~~4.7.3.3~~ **(g)(4)** In METAR ~~and SPECI~~, only QNH values shall be included.	Transposed with no change. No SPECI used in EU rules.	**(g)(4)** In METAR, only QNH values shall be included.	MET.TR
~~**4.8**~~ **MET.TR.250(a)(12) Meteorological reports and other information** **Supplementary information**	Transposed with no change.	**MET.TR.250(a)(12) Meteorological reports and other information** **Supplementary information**	MET.TR
~~4.8.1 Reporting~~ **AMC2 MET.TR.250(a)(12) Meteorological reports and other information**		**AMC2 MET.TR.250(a)(12) Meteorological reports and other information**	
~~4.8.1.1 Recommendation.~~ In local routine and special reports and in METAR by an automatic observing system ~~and SPECI~~, the following recent weather phenomena, i.e. 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, should be reported, up to a maximum of three groups, ~~in accordance with the templates shown in Tables A3-1 and A3-2~~, in the supplementary information: ~~—~~(a) freezing precipitation ~~—~~(b) moderate or heavy precipitation (including	Transposed with no change. Editorial changes only	In local routine and special reports and in METAR, by an automatic observing system, the following recent weather phenomena, i.e. 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, should be reported, up to a maximum of three groups, in the supplementary information: **(a)** freezing precipitation **(b)** moderate or heavy precipitation	MET.TR

showers thereof) —(c) blowing snow —(d) duststorm, sandstorm —(e) thunderstorm —(f) funnel cloud (tornado or water spout) —(g) volcanic ash		(including showers thereof) **(c)** blowing snow **(d)** duststorm, sandstorm **(e)** thunderstorm **(f)** funnel cloud (tornado or water spout) **(g)** volcanic ash	
~~4.8.1.2 Recommendation.~~ **AMC2 MET.TR.250(a)(12) Meteorological reports and other information** **(b)** In local routine and special reports when reported by an automatic observing system, the following significant meteorological conditions, or combinations thereof, should be reported in supplementary information:	Transposed with no change.	**AMC2 MET.TR.250(a)(12) Meteorological reports and other information** **(b)** In local routine and special reports, when reported by an automatic observing system, the following significant meteorological conditions, or combinations thereof, should be reported in supplementary information:	MET.TR
— cumulonimbus clouds CB	Transposed with no change.	**(1)** cumulonimbus clouds CB	MET.TR
— thunderstorm TS	Transposed with no change.	**(2)** thunderstorm TS	MET.TR
— moderate or severe turbulence MOD TURB, SEV TURB	Transposed with no change.	**(3)** moderate or severe turbulence MOD TURB, SEV TURB	MET.TR
— wind shear WS	Transposed with no change.	**(4)** wind shear WS	MET.TR
— hail GR	Transposed with no change.	**(5)** hail GR	MET.TR
— severe squall line SEV SQL	Transposed with no change.	**(6)** severe squall line SEV SQL	MET.TR

— moderate or severe icing MOD ICE, SEV ICE	Transposed with no change.	**(7)** moderate or severe icing MOD ICE, SEV ICE	MET.TR
— freezing precipitation FZDZ, FZRA	Transposed with no change.	**(8)** freezing precipitation FZDZ, FZRA	MET.TR
— severe mountain waves SEV MTW	Transposed with no change.	**(9)** severe mountain waves SEV MTW	MET.TR
— duststorm, sandstorm DS, SS	Transposed with no change.	**(10)** duststorm, sandstorm DS, SS	MET.TR
— blowing snow BLSN	Transposed with no change.	**(11)** blowing snow BLSN	MET.TR
— funnel cloud (tornado or water spout) FC	Transposed with no change.	**(12)** funnel cloud (tornado or water spout) FC	MET.TR
(c) The location of the condition should be indicated. Where necessary, additional information should be included using abbreviated plain language.	Transposed with no change.	**(c)** The location of the condition should be indicated. Where necessary, additional information should be included using abbreviated plain language.	MET.TR
~~4.8.1.3 Recommendation.~~ **AMC2 MET.TR.252(d)(1) Reporting of meteorological elements** In automated local routine and special reports and METAR~~ and SPECI~~, in addition to the precipitation types listed under AMC1 MET.TR.252(d)(1)(a)(1), the abbreviation UP should be used for unidentified precipitation ~~recent weather phenomena listed under 4.8.1.1, recent unknown precipitation should be reported in accordance with the template shown in Table A3-2~~ when the type of precipitation cannot be identified by the automatic observing system.	Transposed with no change. Reference changes only.	**AMC2 MET.TR.252(d)(1) Reporting of meteorological elements** In automated local routine and special reports and METAR, in addition to the precipitation types listed under AMC1 MET.TR.252(d)(1)(a)(1), the abbreviation UP should be used for unidentified precipitation when the type of precipitation cannot be identified by the automatic observing system.	MET.TR

~~4.8.1.4 Recommendation.~~ **AMC3 MET.TR.250(a)(12) Meteorological reports and other information** ~~In METAR and SPECI, where local circumstances so warrant, information on wind shear should be added.~~ Information on wind shear should be included as supplementary information in local routine and special reports and METAR, where local circumstances so warrant.	Transposed with no change. No SPECI used in Europe.	**AMC3 MET.TR.250(a)(12) Meteorological reports and other information** Information on wind shear should be included as supplementary information in local routine and special reports and METAR, where local circumstances so warrant.	MET.TR
~~Note.~~ **GM2 MET.TR.250(a)(12) Meteorological reports and other information** The local circumstances ~~referred to in 4.8.1.4~~ include, but are not necessarily limited to, wind shear of a non-transitory nature such as might be associated with low-level temperature inversions or local topography.	Transposed with no change. Editorial change only.	**GM2 MET.TR.250(a)(12) Meteorological reports and other information** The local circumstances include, but are not necessarily limited to, wind shear of a non-transitory nature such as might be associated with low-level temperature inversions or local topography.	MET.TR
~~4.8.1.5 Recommendation.~~ **AMC4 MET.TR.250(a)(12) Meteorological reports and other information** In METAR ~~and SPECI,~~ the following information should be included in the supplementary information:~~, in accordance with regional air navigation agreement:~~	Transposed with no change. No SPECI used in Europe. Editorial change only.	**AMC4 MET.TR.250(a)(12) Meteorological reports and other information** In METAR the following information should be included in the supplementary information:	MET.TR
(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	Transposed with no change.	**(a)** information on sea-surface temperature and the state of the sea or the significant wave height from aeronautical meteorological stations established on	MET.TR

helicopter operations; and		offshore structures in support of helicopter operations; and	
(b) information on the state of the runway provided by the appropriate airport authority.	Transposed with no change.	**(b)** information on the state of the runway provided by the appropriate airport authority.	MET.TR
~~Note 1.— The state of the sea is specified in WMO Publication No. 306, Manual on Codes, Volume I.1, Part A — Alphanumeric Codes, Code Table 3700.~~	Not transposed	---	---
~~Note 2.— The state of the runway is specified in WMO Publication No. 306, Manual on Codes, Volume I.1, Part A — Alphanumeric Codes, Code Tables 0366, 0519, 0919 and 1079.~~	Not transposed	---	---

INFORMATION.

The **'Table A3-1. Template for the local routine (MET REPORT) and local special (SPECIAL) reports'** is transposed with no change.

For brevity reasons, it is not reproduced in this document and can be found in **Table 4 of Appendix 1** to this NPA.

INFORMATION.

The **'Table A3-2. Template for METAR'** is transposed with no change.

For brevity reasons, it is not reproduced in this document and can be found in **Table 5 of Appendix 1** to this NPA.

INFORMATION.

The **'Table A3-1. Template for the local routine (MET REPORT) and local special (SPECIAL) reports'** is transposed with no change.

For brevity reasons, it is not reproduced in this document and can be found in **Table 4 of Appendix 1** to this NPA.

~~TABLE A3-3.~~ GM1 MET.TR.225(c)(7)(ii) Aerodrome forecasts - Landing (TREND)

Use of change indicators in trend forecasts

Change indicator	*Time indicator and period*	*Meaning*	
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 TLn2n2n2n2	temporary fluctuations are forecast to	commence at n1n1n1n1 UTC and cease by 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

INFORMATION.

The **'Table A3-4. Ranges and resolutions for the numerical elements included in local reports'** is transposed with no change.

For brevity reasons, it is not reproduced in this document and can be found in **Table 4a of Appendix 1** to this NPA.

INFORMATION.

The **'Table A3-5. Ranges and resolutions for the numerical elements included in METAR and SPECI'** is transposed with no change.

For brevity reasons, it is not reproduced in this document and can be found in **Table 5a of Appendix 1** to this NPA.

~~**Example A3-1. Routine report**~~

GM1 MET.TR.250(b)(1) Meteorological reports and other information

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

MET REPORT YUDO 221630Z WIND 240/4MPS VIS 600M RVR RWY 12 TDZ 1000M MOD DZ FG CLD SCT 300M OVC 600M T17 DP16 QNH 1018HPA TREND BECMG TL1700 VIS 800M FG BECMG AT1800 VIS 10KM NSW

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

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

Meaning of both reports:

Routine report for Donlon/International* issued on the 22nd of the month at 1630 UTC; surface wind direction 240 degrees; wind speed 4 metres per second; 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 300 metres; overcast at 600 metres; air temperature 17 degrees Celsius; dew-point temperature 16 degrees Celsius; QNH 1 0 18 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 1700 UTC; at 1800 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

Note.— In this example, the primary units 'metre per second' and 'metre' were used for wind speed and height of cloud base, respectively. However, in accordance with Annex 5, the corresponding non-SI alternative units 'knot' and 'foot' may be used instead.

~~**Example A3-2. Special report**~~

GM2 MET.TR.250(b)(1) Meteorological reports and other information

a) Local special report (same location and weather conditions as SPECI):

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

b) SPECI for YUDO (Donlon/International):*

SPECI YUDO 151115Z 05025G37KT 3000 1200NE+TSRA BKN005CB 25/22 Q1008 TEMPO TL1200 0600 BECMG AT1200 8000 NSW NSC

Meaning of both reports:

Special report for Donlon/International* issued on the 15th of the month at 1115 UTC; surface wind direction 050 degrees; wind speed 25 knots gusting between 10 and 37 knots (minimum wind speed not to be included in SPECI) visibility 1 200 metres (along the runway(s) in the local special report); prevailing visibility 3 000 metres (in SPECI) with minimum visibility 1 200 metres to north east (directional variations to be included in SPECI only); Runway visual range above 1 800 metres on runway 05 (Runway visual range not required in SPECI with prevailing visibility of 3 000 metres); 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(s) in the local special report; prevailing visibility in SPECI) temporarily 600 metres from 1115 to 1200, becoming at 1200 UTC visibility (along the runway(s) in the local special report; prevailing visibility in SPECI) 8 kilometres, thunderstorm ceases and nil significant weather and nil significant cloud.

** Fictitious location*

Note.— In this example, the non-SI alternative units 'knot' and 'foot' were used for wind speed and height of cloud base, respectively. However, in accordance with Annex 5, the corresponding primary units 'metres per second' and 'metre' may be used instead.

~~**Example A3-3. Volcanic activity report**~~

GM3 MET.TR.250(b)(1) Meteorological reports and other information

VOLCANIC ACTIVITY REPORT YUSB* 231500 MT TROJEEN* VOLCANO N5605 W12652 ERUPTED 231445
LARGE ASH CLOUD EXTENDING TO APPROX 30000 FEET MOVING SW

Meaning:

Volcanic activity report issued by Siby/Bistock meteorological station at 1500 UTC on the 23rd of the month. Mt. Trojeen volcano 56 degrees 5 minutes north 126 degrees 52 minutes west erupted at 1445 UTC on the 23rd; a large ash cloud was observed extending to approximately 30 000 feet and moving in a south-westerly direction.

** Fictitious location*

ICAO Annex 3, Part II	Justification/reason for changes	Proposed NPA 2014-07 (A) text	Relevant Part
~~**APPENDIX 4. TECHNICAL SPECIFICATIONS RELATED TO AIRCRAFT OBSERVATIONS AND REPORTS**~~ ~~(See Chapter 5 of this Annex.)~~	---	---	---
~~**1. CONTENTS OF AIR-REPORTS**~~	This point 1 is not transposed as it is considered to be an airspace requirement, which will be covered under RMT.0524 on Data Link operations. MET information shall be included under this task. This task is expected to be initiated in 2015/2016.	---	---
~~**1.1 Routine air-reports by air-ground data link**~~	Not transposed as this is an airspace requirement and will be covered under RMT.0524.	---	---
~~1.1.1 When air-ground data link is used and automatic dependent surveillance (ADS) or SSR Mode S is being applied, the elements contained in routine air-reports shall be:~~	Not transposed as this is an airspace requirement and will be covered under RMT.0524.	---	---
~~Message type designator~~ ~~Aircraft identification~~ ~~Data block 1~~	Not transposed as this is an airspace requirement and will be covered under RMT.0524.	---	---

ICAO Annex 3, Part II	Justification/reason for changes	Proposed NPA 2014-07 (A) text	Relevant Part
~~Latitude~~ ~~Longitude~~ ~~Level~~ ~~Time~~ ~~Data block 2~~ ~~Wind direction~~ ~~Wind speed~~ ~~Wind quality flag~~ ~~Air temperature~~ ~~Turbulence (if available)~~ ~~Humidity (if available)~~			
~~Note.— When ADS or SSR Mode S is being applied, the requirements of routine air reports may be met by the combination of the basic ADS/SSR Mode S data block (data block 1) and the meteorological information data block(data block 2), available from ADS or SSR Mode S reports. The ADS message format is specified in the PANS-ATM(Doc 4444), 4.11.4 and Chapter 13 and the SSR Mode S message format is specified in Annex 10, Volume III, Part I — Digital Data Communication Systems, Chapter 5.~~	Not transposed as this Note will be covered under RMT.0524.	---	---
~~1.1.2 When air-ground data link is used while~~	Not transposed as this is an	---	---

ICAO Annex 3, Part II	Justification/reason for changes	Proposed NPA 2014-07 (A) text	Relevant Part
~~ADS and SSR Mode S are not being applied, the elements contained in routine reports shall be:~~ ~~Message type designator~~ ~~Section 1 (Position information)~~ ~~Aircraft identification~~ ~~Position or latitude and longitude~~ ~~Time~~ ~~Flight level or altitude~~ ~~Next position and time over~~ ~~Ensuing significant point~~ ~~Section 2 (Operational information)~~ ~~Estimated time of arrival~~ ~~Endurance~~ ~~Section 3 (Meteorological information)~~ ~~Air temperature~~ ~~Wind direction~~ ~~Wind speed~~ ~~Turbulence~~ ~~Aircraft icing~~ ~~Humidity (if available)~~	airspace requirement and will be covered under RMT.0524.		

ICAO Annex 3, Part II	Justification/reason for changes	Proposed NPA 2014-07 (A) text	Relevant Part
~~Note.— When air-ground data link is used while ADS and SSR Mode S are not being applied, the requirements of routine air reports may be met by the controller-pilot data link communication (CPDLC) application entitled "Position report". The details of this data link application are specified in the Manual of Air Traffic Services Data Link Applications(Doc 9694) and in Annex 10, Volume III, Part I.~~	Not transposed as this Note will be covered under RMT.0524.	---	---
~~**1.2 Special air reports by air-ground data link**~~	Not transposed as this is an airspace requirement and will be covered under RMT.0524.	---	---
~~When air-ground data link is used, the elements contained in special air reports shall be:~~ ~~Message type designator~~ ~~Aircraft identification~~ ~~Data block 1~~ ~~Latitude~~ ~~Longitude~~ ~~Level~~ ~~Time~~ ~~Data block 2~~ ~~Wind direction~~	Not transposed as this is an airspace requirement and will be covered under RMT.0524.	---	---

ICAO Annex 3, Part II	Justification/reason for changes	Proposed NPA 2014-07 (A) text	Relevant Part
~~Wind speed~~ ~~Wind quality flag~~ ~~Air temperature~~ ~~Turbulence (if available)~~ ~~Humidity (if available)~~ ~~Data block 3~~ ~~Condition prompting the issuance of a special air-report (one condition to be selected from the list presented in Table A4-1).~~			
~~Note 1.— The requirements of special air-reports may be met by the data link flight information service (D-FIS) application entitled "Special air-report service". The details of this data link application are specified in Doc 9694.~~	Not transposed as this Note will be covered under RMT.0524.	---	---
~~Note 2.— In the case of a special air-report of pre-eruption volcanic activity, volcanic eruption or volcanic ash cloud, additional requirements are indicated in 4.2.~~	Not transposed as this Note will be covered under RMT.0524.	---	---
~~**1.3 Special air-reports by voice communications**~~	This point is not transposed as it is already covered by Appendix 5 to SERA.12015(b)	---	---
~~When voice communications are used, the elements contained in special air-reports shall~~	This point is not transposed as it is already covered by Appendix 5 to	---	---

ICAO Annex 3, Part II	Justification/reason for changes	Proposed NPA 2014-07 (A) text	Relevant Part
~~be:~~ ~~Message type designator~~ ~~Section 1 (Position information)~~ ~~Aircraft identification~~ ~~Position or latitude and longitude~~ ~~Time~~ ~~Level or range of levels~~ ~~Section 3 (Meteorological information)~~ ~~Condition prompting the issuance of a special air report, to be selected from the list presented in Table A4-1.~~	SERA.12015(b)		
~~Note 1.— Air reports are considered routine by default. The message type designator for special air reports is specified in the PANS-ATM (Doc 4444), Appendix 1.~~	This Note is not transposed as it is already covered by Appendix 5 to SERA.12015(b)	---	---
~~Note 2.— In the case of a special air report of pre-eruption volcanic activity, volcanic eruption or volcanic ash cloud, additional requirements are indicated in 4.2.~~	This Note is not transposed as it is already covered by Appendix 5 to SERA.12015(b)	---	---
~~**2. CRITERIA FOR REPORTING**~~	This point 2 is not transposed as the below provisions are considered to be airspace requirements, which will be	---	---

ICAO Annex 3, Part II	Justification/reason for changes	Proposed NPA 2014-07 (A) text	Relevant Part
	covered under RMT.0524 on Data Link operations.		
~~**2.1 General**~~ ~~When air-ground data link is used, the wind direction, wind speed, wind quality flag, air temperature, turbulence and humidity included in air reports shall be reported in accordance with the following criteria.~~	Not transposed as it is considered to be an airspace requirement, which will be covered under RMT.0524 on Data Link operations.	---	---
~~**2.2 Wind direction**~~ ~~The wind direction shall be reported in terms of degrees true, rounded to the nearest whole degree.~~	Not transposed as this is an airspace requirement and will be appropriately covered under the relevant set of rules.	---	---
~~**2.3 Wind speed**~~ ~~The wind speed shall be reported in metres per second or knots, rounded to the nearest 1 m/s (1 knot). The units of measurement used for the wind speed shall be indicated.~~	Not transposed as it is considered to be an airspace requirement, which will be covered under RMT.0524 on Data Link operations.	---	---
~~**2.4 Wind quality flag**~~ ~~The wind quality flag shall be reported as 0 when the roll angle is less than 5 degrees and as 1 when the roll angle is5 degrees or more.~~	Not transposed as it is considered to be an airspace requirement, which will be covered under RMT.0524 on Data Link operations.	---	---
~~**2.5 Air temperature**~~ ~~The air temperature shall be reported to the~~	Not transposed as it is considered to be an airspace requirement,	---	---

ICAO Annex 3, Part II	Justification/reason for changes	Proposed NPA 2014-07 (A) text	Relevant Part
~~nearest tenth of a degree Celsius.~~	which will be covered under RMT.0524 on Data Link operations.		
~~**2.6 Turbulence**~~ ~~The turbulence shall be reported in terms of the cube root of the eddy dissipation rate (EDR).~~	Not transposed as it is considered to be an airspace requirement, which will be covered under RMT.0524 on Data Link operations.	---	---
~~**2.6.1 Routine air reports**~~	Not transposed.	---	---
~~The turbulence shall be reported during the en-route phase of the flight and shall refer to the 15-minute period immediately preceding the observation. Both the average and peak value of turbulence, together with the time of occurrence of the peak value to the nearest minute, shall be observed. The average and peak values shall be reported in terms of the cube root of EDR. The time of occurrence of the peak value shall be reported as indicated in Table A4-2. The turbulence shall be reported during the climb-out phase for the first 10 minutes of the flight and shall refer to the 30-second period immediately preceding the observation. The peak value of turbulence shall be observed.~~	Not transposed as it is considered to be an airspace requirement, which will be covered under RMT.0524 on Data Link operations.	---	---
~~**2.6.2 Interpretation of the turbulence report**~~	Not transposed.	---	---
~~Turbulence shall be considered:~~	Not transposed as it is considered	---	---

ICAO Annex 3, Part II	Justification/reason for changes	Proposed NPA 2014-07 (A) text	Relevant Part
~~a) severe when the peak value of the cube root of EDR exceeds 0.7;~~ ~~b) moderate when the peak value of the cube root of EDR is above 0.4 and below or equal to 0.7;~~ ~~c) light when the peak value of the cube root of EDR is above 0.1 and below or equal to 0.4; and~~ ~~d) nil when the peak value of the cube root of EDR is below or equal to 0.1.~~	to be an airspace requirement, which will be covered under RMT.0524 on Data Link operations.		
~~Note.— The EDR is an aircraft independent measure of turbulence. However, the relationship between the EDR value and the perception of turbulence is a function of aircraft type, and the mass, altitude, configuration and airspeed of the aircraft. The EDR values given above describe the severity levels for a medium-sized transport aircraft under typical en-route conditions (i.e. altitude, airspeed and weight).~~	Not transposed as this Note is linked to the provisions above and thus considered to be included in the rules pertaining to airspace requirement, which will be covered under RMT.0524 on Data Link operations.	---	---
~~**2.6.3 Special air-reports**~~	Not transposed.	---	---
~~Special air-reports on turbulence shall be made during any phase of the flight whenever the peak value of the cube root of EDR exceeds 0.4. The special air-report on turbulence shall be made with reference to the 1-minute period immediately preceding the observation. Both the average and peak value of turbulence shall be~~	Not transposed as it is considered to be an airspace requirement, which will be covered under RMT.0524 on Data Link operations.	---	---

ICAO Annex 3, Part II	Justification/reason for changes	Proposed NPA 2014-07 (A) text	Relevant Part
~~observed. The average and peak values shall be reported in terms of the cube root of EDR. Special air reports shall be issued every minute until such time as the peak values of the cube root of EDR fall below 0.4.~~			
~~**2.7 Humidity**~~ ~~The humidity shall be reported as the relative humidity, rounded to the nearest whole per cent.~~	Not transposed as it is considered to be an airspace requirement, which will be covered under RMT.0524 on Data Link operations.	---	---
~~Note.— The ranges and resolutions for the meteorological elements included in air reports are shown in Table A4-3.~~	Not transposed as linked to the above text.	---	---
~~**3. EXCHANGE OF AIR REPORTS**~~	This point 3.2 is not transposed as it is considered to be the mean how meteorological service provider organise themselves in order to provide the information and not a requirement as such put on them.	---	---
~~**3.1 Responsibilities of the meteorological watch offices**~~	Not transposed, as it is considered to be internal MET arrangements.	---	---
~~3.1.1 The meteorological watch office shall transmit without delay the special air reports received by voice communications to WAFCs.~~	Not transposed, as it is considered to be internal MET arrangements.	---	---
~~3.1.2 The meteorological watch office shall~~	Not transposed, as it is considered	---	---

ICAO Annex 3, Part II	Justification/reason for changes	Proposed NPA 2014-07 (A) text	Relevant Part
~~transmit without delay special air reports of pre-eruption volcanic activity, a volcanic eruption or volcanic ash cloud received to the associated VAACs.~~	to be internal MET arrangements.		
~~3.1.3 When a special air report is received at the meteorological watch office but the forecaster considers that the phenomenon causing the report is not expected to persist and, therefore, does not warrant issuance of a SIGMET, the special air report shall be disseminated in the same way that SIGMET messages are disseminated in accordance with Appendix 6, 1.2.1, i.e. to meteorological watch offices, WAFCs, and other meteorological offices in accordance with regional air navigation agreement.~~	Not transposed, as it is considered to be internal MET arrangements.	---	---
~~Note.— The template used for special air reports which are uplinked to aircraft in flight is in Appendix 6, Table A6-1.~~	Not transposed, as it is linked to the non-transposed texts above.	---	---
~~**3.2 Responsibilities of world area forecast centres**~~	This point 3.2 is not transposed as it is considered to be the mean how meteorological service provider organise themselves in order to provide the information and not a requirement as such put on them.	---	---
~~Air reports received at WAFCs shall be further~~	Not transposed, as it is considered	---	---

ICAO Annex 3, Part II	Justification/reason for changes	Proposed NPA 2014-07 (A) text	Relevant Part
~~disseminated as basic meteorological data.~~	to be internal MET arrangements.		
~~Note.— The dissemination of basic meteorological data is normally carried out on the WMO global telecommunication system.~~	Not transposed, as it is linked to the non-transposed texts above.	---	---
~~**3.3 Supplementary dissemination of air reports**~~	---	---	---
~~Recommendation.— Where supplementary dissemination of air reports is required to satisfy special aeronautical or meteorological requirements, such dissemination should be arranged between the meteorological authorities concerned.~~	This recommendation is not transposed as there is already an overarching requirement on Member States to arrange for the provision of meteorological information provision. It is also covered within the general context of MET.OR.110.	---	---
~~**3.4 Format of air reports**~~ ~~Air reports shall be exchanged in the format in which they are received.~~	This point 3.4 is not transposed as it is considered to be the mean how meteorological service provider organise themselves in order to provide the information and not a requirement as such put on them.	---	---
~~**4. SPECIFIC PROVISIONS RELATED TO REPORTING WIND SHEAR AND VOLCANIC ASH**~~	This point 4 is not transposed as it is already covered by Appendix 5 to SERA.12015(b).	---	---

ICAO Annex 3, Part II	Justification/reason for changes	Proposed NPA 2014-07 (A) text	Relevant Part
~~**4.1 Reporting of wind shear**~~	---	---	---
~~4.1.1 Recommendation.— When reporting aircraft observations of wind shear encountered during the climb-out and approach phases of flight, the aircraft type should be included.~~	Not transposed as it is already covered by Appendix 5 to SERA.12015(b).	---	---
~~4.1.2 Recommendation.— Where wind shear conditions in the climb-out or approach phases of flight were reported or forecast but not encountered, the pilot-in-command should advise the appropriate air traffic services unit as soon as practicable unless the pilot-in-command is aware that the appropriate air traffic services unit has already been so advised by a preceding aircraft.~~	Not transposed as it is already covered by Appendix 5 to SERA.12015(b).	---	---
~~**4.2 Post-flight reporting of volcanic activity**~~	---	---	---
~~Note.— The detailed instructions for recording and reporting volcanic activity observations are given in the PANS-ATM(Doc 4444), Appendix 1.~~	This Note is not transposed as it is linked with the above non transposed paragraphs.	---	---
~~4.2.1 On arrival of a flight at an aerodrome, the completed report of volcanic activity shall be delivered by the operator or a flight crew member, without delay, to the aerodrome meteorological office, or if such office is not easily accessible to arriving flight crew members, the completed form shall be dealt with in~~	Not transposed as it is already covered by Appendix 5 to SERA.12015(b).	---	---

ICAO Annex 3, Part II	Justification/reason for changes	Proposed NPA 2014-07 (A) text	Relevant Part
~~accordance with local arrangements made by the meteorological authority and the operator.~~			
~~4.2.2 The completed report of volcanic activity received by an aerodrome meteorological office shall be transmitted without delay to the meteorological watch office responsible for the provision of meteorological watch for the flight information region in which the volcanic activity was observed.~~	Not transposed as it is already covered by Appendix 5 to SERA.12015(b).	---	---

INFORMATION.

The **'Table A4-1. Template for the special air-report (downlink)'** is not transposed as it is linked to 1.2 of Appendix 4 which is not transposed.

For brevity reasons, it is not reproduced in this document.

INFORMATION.

The **'Table A4-2. Time of occurrence of the peak value to be reported'** is not transposed as it is linked to 1.2 of Appendix 4 which is not transposed.

For brevity reasons, it is not reproduced in this document.

INFORMATION.

The **'Table A4-3. Ranges and resolutions for the meteorological elements included in air-reports'** is not transposed as it is linked to 1.2 of Appendix 4 which is not transposed.

For brevity reasons, it is not reproduced in this document.

ICAO Annex 3, Part II	Justification/reason for changes	Proposed NPA 2014-07 (A) text	Relevant Part
~~**APPENDIX 5. TECHNICAL SPECIFICATIONS RELATED TO FORECASTS**~~ ~~(See Chapter 6 of this Annex.)~~	---	---	---
~~**1. CRITERIA RELATED TO TAF**~~	---	---	---
~~**1.1 TAF format**~~	---	---	---
~~1.1.1~~ **MET.TR.220 Aerodrome forecasts (TAF)** **(b)** TAF shall be issued in accordance with the template shown in Table 3 of Appendix 1~~A5-1~~ and disseminated in the TAF code form. ~~prescribed by the World Meteorological Organization.~~	Transposed with no change. The deleted text is redundant with the Note below that is covered under guidance material.	**MET.TR.220 Aerodrome forecasts (TAF)** **(b)** TAF shall be issued in accordance with the template shown in Table 3 of Appendix 1 and disseminated in the TAF code form.	MET.TR
~~Note.—~~ **GM3 MET.TR.220(c) Aerodrome forecasts (TAF)** The TAF code form is contained in WMO Publication No. 306, Manual on Codes, Volume I.1, Part A — Alphanumeric Codes.	Transposed with no change.	**GM3 MET.TR.220(c) Aerodrome forecasts (TAF)** The TAF code form is contained in WMO Publication No. 306, Manual on Codes, Volume I.1, Part A — Alphanumeric Codes.	MET.TR
~~1.1.2 Recommendation.— TAF should be disseminated, under bilateral agreements between States in a position to do so, in digital form, in addition to the dissemination of the TAF~~	Not transposed as the BUFR code form is outdated and today replaced by XML.	---	---

ICAO Annex 3, Part II	Justification/reason for changes	Proposed NPA 2014-07 (A) text	Relevant Part
~~in accordance with 1.1.1.~~			
~~1.1.3~~ **(d)** TAF, if disseminated in digital form, shall: **(1)** be formatted in accordance with a globally interoperable information exchange model ~~and shall~~; **(2)** use extensible markup language (XML)/geography markup language (GML)~~.~~; and	Transposed with no change.	**(d)** TAF if disseminated in digital form shall: **(1)** be formatted in accordance with a globally interoperable information exchange model; **(2)** use extensible markup language (XML)/geography markup language (GML); and	MET.TR
~~1.1.4~~ **(3)** ~~TAF if disseminated in digital form shall~~ be accompanied by the appropriate metadata.	Transposed with no change. Only editorial change.	**(3)** be accompanied by the appropriate metadata.	MET.TR
~~Note.~~ **GM1 MET.TR.220(d) Aerodrome forecasts (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).	Transposed with no change.	**GM1 MET.TR.220(d) Aerodrome forecasts (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).	MET.TR
~~**1.2**~~ **MET.TR.220 Aerodrome forecasts (TAF)** **(e)** ~~**Inclusion of**~~ **The meteorological elements included in TAF shall be:**	Transposed with no change. The editorial change is made to provide an introductory sentence only.	**MET.TR.220 Aerodrome forecasts (TAF)** **(e) The meteorological elements included in TAF shall be:**	MET.TR

ICAO Annex 3, Part II	Justification/reason for changes	Proposed NPA 2014-07 (A) text	Relevant Part
~~Note.——~~**GM1 MET.TR.220(e) Aerodrome forecasts (TAF)** Guidance on operationally desirable accuracy of forecasts is given in Attachment B of ICAO Annex 3.	Transposed with no change.	**GM1 MET.TR.220(e) Aerodrome forecasts (TAF)** Guidance on operationally desirable accuracy of forecasts is given in Attachment B of ICAO Annex 3.	MET.TR
~~1.2.1~~ **(1)** Surface wind	Transposed with no change.	**(1)** Surface wind	MET.TR
(i) In forecasting surface wind, the expected prevailing direction shall be given. **(ii)** When it is not possible to forecast a prevailing surface wind direction due to its expected variability,~~— for example, during light wind conditions (less than 1.5 m/s (3 kt)) or thunderstorms~~, the forecasted wind direction shall be indicated as variable using "VRB". **(iii)** When the wind is forecasted to be less than 0.5 m/s (1 kt), the forecasted wind speed shall be indicated as calm. **(iv)** When the forecasted maximum speed (gust) exceeds the forecasted mean wind speed by 5 m/s (10 kt) or more, the forecasted maximum wind speed shall be indicated. **(v)** When a wind speed of 50 m/s (100 kt) or more is forecasted, it shall be indicated to be more than 49 m/s (99 kt).	The deleted text contains examples only.	**(i)** In forecasting surface wind, the expected prevailing direction shall be given. **(ii)** When it is not possible to forecast a prevailing surface wind direction due to its expected variability, the forecasted wind direction shall be indicated as variable using 'VRB'. **(iii)** When the wind is forecasted to be less than 1 kt (0.5 m/s), the forecasted wind speed shall be indicated as calm. **(iv)** When the forecasted maximum speed (gust) exceeds the forecasted mean wind speed by 10 kt (5 m/s) or more, the forecasted maximum wind speed shall be indicated. **(v)** When a wind speed of 100 kt (50 m/s) or more is forecasted, it shall be indicated to be more than 99 kt (49 m/s).	MET.TR

ICAO Annex 3, Part II	Justification/reason for changes	Proposed NPA 2014-07 (A) text	Relevant Part
~~1.2.2~~ **(2)** Visibility	Transposed with no change.	**(2)** Visibility	MET.TR
~~Recommendation.~~ **(i)** When the visibility is forecasted to be less than 800 m, it ~~should~~ shall be expressed in steps of 50 m; when it is forecasted to be 800 m or more but less than 5 km, in steps of 100 m; 5 km or more but less than 10 km, in kilometre steps; and when it is forecasted to be 10 km or more, it ~~should~~shall be expressed as 10 km, except when conditions of CAVOK are forecasted to apply. The prevailing visibility ~~should~~ shall be forecast. **(ii)** When visibility is forecast to vary in different directions and the prevailing visibility cannot be forecasted, the lowest forecasted visibility ~~should~~ shall be given.	In Europe, when the visibility is forecasted to be less than 800 m, it is current practice that it shall be expressed in steps of 50 m therefore this recommendation is upgraded to IR.	**(i)** When the visibility is forecasted to be less than 800 m, it shall be expressed in steps of 50 m; when it is forecasted to be 800 m or more but less than 5 km, in steps of 100 m; 5 km or more but less than 10 km, in kilometre steps; and when it is forecasted to be 10 km or more, it shall be expressed as 10 km, except when conditions of CAVOK are forecasted to apply. The prevailing visibility shall be forecasted. **(ii)** When visibility is forecasted to vary in different directions and the prevailing visibility cannot be forecasted, the lowest forecasted visibility shall be given.	MET.TR
~~1.2.3~~ **(3)** Weather phenomena	Transposed with no change.	**(3)** Weather phenomena	MET.TR
(i) One or more, up to a maximum of three, of the following weather phenomena or combinations thereof, together with their characteristics and, where appropriate, intensity, shall be forecasted if they are expected to occur at the aerodrome:	Transposed with no change.	**(i)** One or more, up to a maximum of three, of the following weather phenomena or combinations thereof, together with their characteristics and, where appropriate, intensity, shall be forecasted if they are expected to occur at the aerodrome:	MET.TR
~~—~~(A) freezing precipitation	Transposed with no change.	**(A)** freezing precipitation	MET.TR

ICAO Annex 3, Part II	Justification/reason for changes	Proposed NPA 2014-07 (A) text	Relevant Part
—(B) freezing fog	Transposed with no change.	**(B)** freezing fog	MET.TR
—(C) moderate or heavy precipitation (including showers thereof)	Transposed with no change.	**(C)** moderate or heavy precipitation (including showers thereof)	MET.TR
—(D) low drifting dust, sand or snow	Transposed with no change.	**(D)** low drifting dust, sand or snow	MET.TR
—(E) blowing dust, sand or snow	Transposed with no change.	**(E)** blowing dust, sand or snow	MET.TR
—(F) duststorm	Transposed with no change.	**(F)** duststorm	MET.TR
—(G) sandstorm	Transposed with no change.	**(G)** sandstorm	MET.TR
—(H) thunderstorm (with or without precipitation)	Transposed with no change.	**(H)** thunderstorm (with or without precipitation)	MET.TR
(I)— squall	Transposed with no change.	**(I)** squall	MET.TR
(J)— funnel cloud (tornado or waterspout)	Transposed with no change.	**(J)** funnel cloud (tornado or waterspout)	MET.TR
—(K) other weather phenomena ~~given in Appendix 3, 4.4.2.3,~~ , as agreed by the aerodrome meteorological ~~authority~~ office with the ATS ~~authority~~ units and operators concerned.	Editorial change. In this context, the meteorological authority is considered to be the aerodrome meteorological office.	**(K)** other weather phenomena, as agreed by the aerodrome meteorological office with the ATS units and operators concerned.	MET.TR
(ii) The expected end of occurrence of those phenomena shall be indicated by the abbreviation "NSW".	Transposed with no change.	**(ii)** The expected end of occurrence of those phenomena shall be indicated by the abbreviation 'NSW'.	MET.TR

ICAO Annex 3, Part II	Justification/reason for changes	Proposed NPA 2014-07 (A) text	Relevant Part
~~1.2.4~~ **(4)** Cloud	Transposed with no change.	**(4)** Cloud	MET.TR
~~Recommendation.~~ **(i)** Cloud amount ~~should~~shall be forecasted using the abbreviations "FEW", "SCT", "BKN" or "OVC" as necessary. When it is expected that the sky will remain or become obscured and clouds cannot be forecasted and information on vertical visibility is available at the aerodrome, the vertical visibility ~~should~~ shall be forecasted in the form "VV" followed by the forecast value of the vertical visibility. **(ii)** When several layers or masses of cloud are forecasted, their amount and height of base ~~should~~ shall be included in the following order:	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.	**(i)** Cloud amount shall be forecasted using the abbreviations 'FEW', 'SCT', 'BKN' or 'OVC' as necessary. When it is expected that the sky will remain or become obscured and clouds cannot be forecasted and information on vertical visibility is available at the aerodrome, the vertical visibility shall be forecasted in the form 'VV' followed by the forecasted value of the vertical visibility. **(ii)** When several layers or masses of cloud are forecasted, their amount and height of base shall be included in the following order:	MET.TR
(**A**~~a~~) the lowest layer or mass regardless of amount, to be forecast as FEW, SCT, BKN or OVC as appropriate;	Transposed with no change.	**(A)** the lowest layer or mass regardless of amount, to be forecast as FEW, SCT, BKN or OVC as appropriate;	MET.TR
(B~~b~~) the next layer or mass covering more than 2/8, to be forecast as SCT, BKN or OVC as appropriate;	Transposed with no change.	**(B)** the next layer or mass covering more than 2/8, to be forecast as SCT, BKN or OVC as appropriate;	MET.TR
(C~~c~~) the next higher layer or mass covering more than 4/8, to be forecast as BKN or OVC as appropriate; and	Transposed with no change.	**(C)** the next higher layer or mass covering more than 4/8, to be forecast as BKN or OVC as appropriate; and	MET.TR

ICAO Annex 3, Part II	Justification/reason for changes	Proposed NPA 2014-07 (A) text	Relevant Part
(D~~d~~) cumulonimbus clouds and/or towering cumulus clouds, whenever forecasted and not already included under a) to c).	Transposed with no change.	**(D)** cumulonimbus clouds and/or towering cumulus clouds, whenever forecasted and not already included under a) to c).	MET.TR
(iii) Cloud information ~~should~~ shall be limited to cloud of operational significance; when no cloud of operational significance is forecasted, and "CAVOK" is not appropriate, the abbreviation "NSC" should be used.	The upgrade of this recommendation to IR is considered to be of safety significance. The operational significance is estimated at 5000 ft or minimum sector altitude if higher or no CB/TCU.	**(iii)** Cloud information shall be limited to cloud of operational significance; when no cloud of operational significance is forecasted, and 'CAVOK' is not appropriate, the abbreviation 'NSC' should be used.	MET.TR
~~1.2.5 Temperature~~	---	---	---
~~Recommendation.— When forecast temperatures are included in accordance with regional air navigation agreement, the maximum and minimum temperatures expected to occur during the period of validity of the TAF should be given, together with their corresponding times of occurrence.~~	This recommendation is not transposed as it is already covered in MET.TR.220(b)	---	---
~~1.3~~ MET.TR.220 Aerodrome forecasts (TAF) **(f) Use of change groups**	Transposed with no change.	**MET.TR.220 Aerodrome forecasts (TAF)** **(f) Use of change groups**	MET.TR
~~Note.— —~~ **GM1 MET.TR.220(f)(1) Aerodrome forecasts (TAF)** Guidance on the use of change and time indicators in TAF is given in the table below~~Table~~	Transposed with no change.	**GM1 MET.TR.220(f)(1) Aerodrome forecasts (TAF)** Guidance on the use of change and time indicators in TAF is given in the table	MET.TR

ICAO Annex 3, Part II	Justification/reason for changes	Proposed NPA 2014-07 (A) text	Relevant Part
~~A5-2.~~: (table A5-2 is inserted here)		below: [Table A5-2 is inserted here]	
~~1.3.1~~ **MET.TR.220 (f)(1)** The criteria used for the inclusion of change groups in TAF or for the amendment of TAF shall be based on any of the following weather phenomena or combinations thereof being forecast to begin or end or change in intensity:	Transposed with no change.	**MET.TR.220 (f)(1)** The criteria used for the inclusion of change groups in TAF or for the amendment of TAF shall be based on any of the following weather phenomena or combinations thereof being forecast to begin or end or change in intensity:	MET.TR
(i)~~—~~ Freezing fog	Transposed with no change.	**(i)** Freezing fog	MET.TR
(ii)~~—~~ freezing precipitation	Transposed with no change.	**(ii)** freezing precipitation	MET.TR
(iii)~~—~~ moderate or heavy precipitation (including showers thereof)	Transposed with no change.	**(iii)** moderate or heavy precipitation (including showers thereof)	MET.TR
(iv)~~—~~ thunderstorm	Transposed with no change.	**(iv)** thunderstorm	MET.TR
(v)~~—~~ duststorm	Transposed with no change.	**(v)** duststorm	MET.TR
(vi)~~—~~ sandstorm.	Transposed with no change.	**(vi)** sandstorm.	MET.TR
~~1.3.2 Recommendation. —~~ **AMC1 MET.TR.220 (f)** The criteria used for the inclusion of change groups in TAF or for the amendment of TAF ~~should~~ should be ~~based on the following~~:	Editorial changes only	**AMC1 MET.TR.220(f)** The criteria used for the inclusion of change groups in TAF or for the amendment of TAF should be based:	MET.TR
(a) when the mean surface wind direction is forecasted to change by 60º or more, the mean speed before and/or after the change being 5	Transposed with no change.	**(i)** when the mean surface wind direction is forecasted to change by 60º or more, the mean speed before and/or after the change	MET.TR

ICAO Annex 3, Part II	Justification/reason for changes	Proposed NPA 2014-07 (A) text	Relevant Part
m/s (10 kt) or more;		being 10 kt (5 m/s) or more;	
(b) when the mean surface wind speed is forecasted to change by 5 m/s (10 kt) or more;	Transposed with no change.	**(b)** when the mean surface wind speed is forecasted to change by 10 kt (5 m/s) or more;	MET.TR
(c) when the variation from the mean surface wind speed (gusts) is forecasted to change by 5 m/s (10 kt) or more, the mean speed before and/or after the change being 7.5 m/s (15 kt) or more;	Transposed with no change.	**(c)** when the variation from the mean surface wind speed (gusts) is forecasted to increase by 10 kt (m/s) or more, the mean speed before and/or after the change being 15 kt (7.5 m/s) or more;	MET.TR
(d) when the surface wind is forecasted to change through values of operational significance. **AMC1 MET.TR.220(f)(2)(iv) Aerodrome forecasts (TAF) & MET.TR.225(c)(1)(iii) Aerodrome forecasts - Landing (TREND)** The threshold values should be established by the aerodrome meteorological office~~authority~~ in consultation with the appropriate ATS authority and operators concerned, taking into account changes in the wind which would:	Transposed with no change. Second sentence is moved to AMC level.	**(d)** when the surface wind is forecast to change through values of operational significance. **AMC1 MET.TR.220(f)(2)(iv) Aerodrome forecasts (TAF) & MET.TR.225(c)(1)(iii) Aerodrome forecasts - Landing (TREND)** The threshold values should be established by the aerodrome meteorological office in consultation with the appropriate ATS authority and operators concerned, taking into account changes in the wind which would:	MET.TR
(a~~1~~) require a change in runway(s) in use; and	Transposed with no change.	**(a)** require a change in runway(s) in use; and	MET.TR

ICAO Annex 3, Part II	Justification/reason for changes	Proposed NPA 2014-07 (A) text	Relevant Part
(b~~2~~) indicate that the runway tailwind and crosswind components will change through values representing the main operating limits for typical aircraft operating at the aerodrome;	Transposed with no change.	**(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;	MET.TR
AMC1 MET.TR.220(f) **(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:	Transposed with no change.	**AMC1 MET.TR.220(f)(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:	MET.TR
(1) 150, 350, 600, 800, 1 500 or 3 000 m; and	Transposed with no change.	**(1)** 150, 350, 600, 800, 1 500 or 3 000 m; and	MET.TR
(2) 5 000 m in cases where significant numbers of flights are operated in accordance with the visual flight rules;	Transposed with no change.	**(2)** 5 000 m in cases where significant numbers of flights are operated in accordance with the visual flight rules;	MET.TR
AMC1 MET.TR.220(f) **(f)** when any of the following weather phenomena or combinations thereof are forecasted to begin or end:	Transposed with no change.	**MET.TR.220(f)(vi)** when any of the following weather phenomena or combinations thereof are forecasted to begin or end:	MET.TR
—**(1)** low drifting dust, sand or snow	Transposed with no change.	**(1)** low drifting dust, sand or snow	MET.TR
—**(2)** blowing dust, sand or snow	Transposed with no change.	**(2)** blowing dust, sand or snow	MET.TR

ICAO Annex 3, Part II	Justification/reason for changes	Proposed NPA 2014-07 (A) text	Relevant Part
—**(3)** squall	Transposed with no change.	**(3)** squall	MET.TR
—**(4)** funnel cloud (tornado or waterspout);	Transposed with no change.	**(4)** funnel cloud (tornado or waterspout);	MET.TR
AMC1 MET.TR.220(f) **(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 forecast to lower and pass through one or more of the following values:	Transposed with no change.	**AMC1 MET.TR.220(f)** **(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:	MET.TR
(1) 30, 60, 150 or 300 m (100, 200, 500 or 1 000 ft); or	Transposed with no change.	**(1)** 30, 60, 150 or 300 m (100, 200, 500 or 1 000 ft); or	MET.TR
(2) 450 m (1 500 ft) in cases where significant numbers of flights are operated in accordance with the visual flight rules;	Transposed with no change.	**(2)** 450 m (1 500 ft) in cases where significant numbers of flights are operated in accordance with the visual flight rules;	MET.TR
AMC1 MET.TR.220(f) **(h)** when the amount of a layer or mass of cloud below 450 m (1 500 ft) is forecasted to change:	Transposed with no change.	**AMC1MET.TR.220(f)** **(h)** when the amount of a layer or mass of cloud below 1 500 ft (450 m) is forecasted to change:	MET.TR
(1) from NSC, FEW or SCT to BKN or OVC; or	Transposed with no change.	**(1)** from NSC, FEW or SCT to BKN or OVC;	MET.TR

ICAO Annex 3, Part II	Justification/reason for changes	Proposed NPA 2014-07 (A) text	Relevant Part
		or	
(2) from BKN or OVC to NSC, FEW or SCT;	Transposed with no change.	**(2)** from BKN or OVC to NSC, FEW or SCT;	MET.TR
AMC1 MET.TR.220(f)(2) **(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: 30, 60, 150 or 300 m (100, 200, 500 or 1 000 ft); and	Transposed with no change.	**AMC1 MET.TR.220(f)** **(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	MET.TR
AMC1 MET.TR.220(f) **(j)** any other criteria based on local aerodrome operating minima, as agreed between the aerodrome meteorological ~~authority~~ office and the operators.	The meteorological authority in this case is the aerodrome meteorological office.	**AMC1 MET.TR.220(f)** **(j)** any other criteria based on local aerodrome operating minima, as agreed between the aerodrome meteorological office and the operators.	MET.TR
~~Note. — Other criteria based on local aerodrome operating minima are to be considered in parallel with similar criteria for the issuance of SPECI developed in response to Appendix 3, 2.3.3 h).~~	Not transposed because SPECI not used	---	---
~~1.3.3 Recommendation. —~~ **MET.TR.220(f)(2)** When a change in any of the elements given in ~~Chapter 6, 6.2.3~~ (a) is required to be indicated in accordance with the criteria given in ~~1.3.2~~ (g)(2), the change indicators "BECMG" or "TEMPO"	This recommendation is upgraded to IR because it is considered as being common practice within the EU and will improve the benefit of	**MET.TR.220(f)(2)** When a change in any of the elements given in (a) is required to be indicated in accordance with the criteria given in (g)(2), the change indicators 'BECMG' or 'TEMPO' shall be used followed	MET.TR

ICAO Annex 3, Part II	Justification/reason for changes	Proposed NPA 2014-07 (A) text	Relevant Part
shall~~ould~~ be used followed by the time period during which the change is expected to occur. The time period shall~~ould~~ be indicated as the beginning and end of the period in whole hours UTC. Only those elements for which a significant change is expected shall~~ould~~ be included following a change indicator. However, in the case of significant changes in respect of cloud, all cloud groups, including layers or masses not expected to change, shall~~ould~~ be indicated.	harmonisation.	by the time period during which the change is expected to occur. The time period shall be indicated as the beginning and end of the period in whole hours UTC. Only those elements for which a significant change is expected shall be included following a change indicator. However, in the case of significant changes in respect of cloud, all cloud groups, including layers or masses not expected to change, shall be indicated.	
~~1.3.4 Recommendation.~~ **MET.TR.220(f)(3)** The change indicator "BECMG" and the associated time group ~~should~~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 ~~should~~ shall ~~normally~~ not exceed 2 hours but in any case ~~should~~ shall not exceed 4 hours.	This recommendation is upgraded to IR because it is considered as being common practice within the EU and will improve the benefit of safety harmonisation.	**MET.TR.220(f)(3)** 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 2 hours but in any case should shall not exceed 4 hours.	MET.TR
~~1.3.5 Recommendation.~~ **MET.TR.220(f)(4)** The change indicator "TEMPO" and the associated time group ~~should~~ shall be used to describe expected frequent or infrequent temporary fluctuations in the meteorological conditions which reach or pass specified threshold values and last for a period of less than one hour in each instance and, in the	This recommendation is upgraded to IR because it is considered as being common practice within the EU and will improve the benefit of safety harmonisation.	**MET.TR.220(f)(4)** The change indicator 'TEMPO' and the associated time group shall be used to describe expected frequent or infrequent temporary fluctuations in the meteorological conditions which reach or pass specified threshold values and last for a period of less than one hour in each instance and, in the aggregate, cover less	MET.TR

ICAO Annex 3, Part II	Justification/reason for changes	Proposed NPA 2014-07 (A) text	Relevant Part
aggregate, cover less than one-half of the forecast period during which the fluctuations are expected to occur. If the temporary fluctuation is expected to last one hour or longer, the change group "BECMG" ~~should~~ shall be used in accordance with ~~1.3.4~~(4) above or the validity period should be subdivided in accordance with ~~1.3.6~~(6) below.		than one-half of the forecast period during which the fluctuations are expected to occur. If the temporary fluctuation is expected to last one hour or longer, the change group 'BECMG' shall be used in accordance with (4) above or the validity period should be subdivided in accordance with (6) below.	
~~1.3.6 Recommendation.~~ **MET.TR.220(f)(5)** Where one set of prevailing weather conditions is expected to change significantly and more or less completely to a different set of conditions, the period of validity ~~should~~ shall be subdivided into self-contained periods using the abbreviation "FM" followed immediately by a six-figure time group in days, hours and minutes UTC indicating the time the change is expected to occur. The subdivided period following the abbreviation "FM" ~~should~~ shall be self-contained and all forecasted conditions given before the abbreviation ~~should~~ shall be superseded by those following the abbreviation.	This recommendation is upgraded to IR because it is considered as being common practice within the EU and will improve the benefit of safety harmonisation.	**MET.TR.220(f)(5)** Where one set of prevailing weather conditions is expected to change significantly and more or less completely to a different set of conditions, the period of validity shall be subdivided into self-contained periods using the abbreviation 'FM' followed immediately by a six-figure time group in days, hours and minutes UTC indicating the time the change is expected to occur. The subdivided period following the abbreviation 'FM' shall be self-contained and all forecasted conditions given before the abbreviation shall be superseded by those following the abbreviation.	MET.TR
~~**1.4 Use of probability groups**~~	---		MET.TR
~~Recommendation.~~ **MET.TR.220(g)** The probability of occurrence of an alternative value of a forecast element or elements ~~should~~ shall be	This recommendation is upgraded to IR because it is considered as being common	**MET.TR.220(g)** The probability of occurrence of an alternative value of a forecast element or	MET.TR

ICAO Annex 3, Part II	Justification/reason for changes	Proposed NPA 2014-07 (A) text	Relevant Part
included~~dicated~~, as necessary, when: ~~by use of the abbreviation "PROB" followed by the probability in tens of per cent and the time period during which the alternative value(s) is (are) expected to apply. The probability information should be placed after the element or elements forecast and be followed by the alternative value of the element or elements. The probability of a forecast of temporary fluctuations in meteorological conditions should be indicated, as necessary, by use of the abbreviation "PROB" followed by the probability in tens of per cent, placed before the change indicator "TEMPO" and associated time group.~~ (1) A 30% or 40% probability of alternative meteorological conditions exists during a specific forecast time period (2) A 30% or 40% probability exists of temporary fluctuations in meteorological conditions during a specific forecast time period This shall be indicated in the TAF by use of the abbreviation "PROB" followed by the probability in tens of per cent and, in the case of (1) above, the time period during which the values are expected to apply or in the case of (2) above, by use of the abbreviation "PROB" followed by the probability in tens of per cent, the change indicator "TEMPO" and associated time group. **GM1 MET.TR.220(g) Aerodrome forecasts**	practice within the EU and will improve the benefit of safety harmonisation. This paragraph has been redrafted to ensure clarity but the objective remains the same as the ICAO provision.	elements shall be included, as necessary, when: (1) A 30% or 40% probability of alternative meteorological conditions exists during a specific forecast time period (2) A 30% or 40% probability exists of temporary fluctuations in meteorological conditions during a specific forecast time period. This shall be indicated in the TAF by use of the abbreviation 'PROB' followed by the probability in tens of per cent and, in the case of (1) above, the time period during which the values are expected to apply or in the case of (2) above, by use of the abbreviation 'PROB' followed by the probability in tens of per cent, the change indicator 'TEMPO' and associated time group. **GM1 MET.TR.220(g) Aerodrome forecasts (TAF)** **(a)** A probability of an alternative value or change of less than 30 per cent should not be considered sufficiently significant to be indicated. **(b)** A probability of an alternative value or change of 50 per cent or more, for aviation	

ICAO Annex 3, Part II	Justification/reason for changes	Proposed NPA 2014-07 (A) text	Relevant Part
(TAF) (a) A probability of an alternative value or change of less than 30 per cent should not be considered sufficiently significant to be indicated. (b) A probability of an alternative value or change of 50 per cent or more, for aviation purposes, 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 not be used to qualify the change indicator "BECMG" nor the time indicator "FM".		purposes, 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 not be used to qualify the change indicator 'BECMG' nor the time indicator 'FM'.	
~~**1.5 Numbers of change and probability groups**~~	---	---	---
~~Recommendation.~~ **AMC1 MET.TR.220(g) Aerodrome forecasts (TAF)** The number of change and probability groups should be kept to a minimum. ~~and should not normally exceed five groups.~~	The reference to the 'five groups' is considered not to be current practice in Europe and is therefore removed.	**AMC1 MET.TR.220(g) Aerodrome forecasts (TAF)** The number of change and probability groups should be kept to a minimum.	MET.TR
~~**1.6 Dissemination of TAF**~~	---	---	MET.TR
GM1 MET.OR.220(a) Aerodrome forecasts (TAF) TAF and amendments thereto ~~shall be~~ are disseminated to international OPMET databanks	This Standard is downgraded at the level of is considered more appropriate to transpose this paragraph as guidance material	**GM1 MET.OR.220(a) Aerodrome forecasts (TAF)** TAF and amendments thereto are disseminated to international OPMET	MET.OR

ICAO Annex 3, Part II	Justification/reason for changes	Proposed NPA 2014-07 (A) text	Relevant Part
and the centres designated ~~by regional air navigation agreement~~ for the operation of aeronautical fixed service satellite distribution systems.~~, in accordance with regional air navigation agreement.~~	to MET.OR.220(a) MET.OR.110 already covers the exchange of TAF	databanks and the centres designated for the operation of aeronautical fixed service satellite distribution systems.	
~~**2. CRITERIA RELATED TO TREND FORECASTS**~~	---	---	---
~~**2.1 Format of trend forecasts**~~	---	---	---
MET.TR.225 Aerodrome forecasts - Landing (TREND) **(a)** Trend forecasts shall be issued in accordance with the templates shown in ~~Appendix 3,~~ Table 4 and Table 5 of Appendix 1 ~~A3-1 and A3-2~~. **(b)** The units and scales used in the trend forecast shall be the same as those used in the previous TREND report to which it is appended.	Transposed with no change. Editorial reference changes only.	**MET.TR.225 Aerodrome forecasts - Landing (TREND)** **(a)** Trend forecasts shall be issued in accordance with the templates shown in Table 4 and Table 5 of Appendix 1. **(b)** The units and scales used in the trend forecast shall be the same as those used in the previous TREND report to which it is appended.	MET.TR
~~Note.— Examples of trend forecasts are given in Appendix 3.~~	This Note is not transposed as it is a duplication of the reference to Appendix 3 in the paragraph above	---	---
~~**Inclusion of meteorological elements in trend forecasts**~~	---	**---**	---

ICAO Annex 3, Part II	Justification/reason for changes	Proposed NPA 2014-07 (A) text	Relevant Part
~~2.2.1 General provisions~~	---	---	---
(c) The trend forecast shall indicate significant changes in respect of one or more of the elements: surface wind, visibility, weather and clouds. ~~Only those elements shall be included for which a significant change is expected.~~ However, in the case of significant changes in respect of cloud, all cloud groups, including layers or masses not expected to change, shall be indicated. In the case of a significant change in visibility, the phenomenon causing the reduction of visibility shall also be indicated. When no change is expected to occur, this shall be indicated by the term "NOSIG".	Editorial change only.	**(c)** The trend forecast shall indicate significant changes in respect of one or more of the elements: surface wind, visibility, weather and clouds. However, in the case of significant changes in respect of cloud, all cloud groups, including layers or masses not expected to change, shall be indicated. In the case of a significant change in visibility, the phenomenon causing the reduction of visibility shall also be indicated. When no change is expected to occur, this shall be indicated by the term 'NOSIG'.	MET.TR
~~2.2.2~~ **MET.TR.225 (c)(1)** Surface wind	Transposed with no change.	**MET.TR.225(c)(1)** Surface wind	MET.TR
The trend forecast shall indicate changes in the surface wind which involve:	Transposed with no change.	The trend forecast shall indicate changes in the surface wind which involve:	MET.TR
(i~~a~~) a change in the mean wind direction of 60° or more, the mean speed before and/or after the change being 5 m/s(10 kt) or more;	Transposed with no change.	**(i)** a change in the mean wind direction of 60° or more, the mean speed before and/or after the change being 10 kt (5 m/s) or more;	MET.TR
(ii~~b~~) a change in mean wind speed of 5 m/s (10 kt) or more; and	Transposed with no change.	**(ii)** a change in mean wind speed of 10 kt (5 m/s) or more	MET.TR

ICAO Annex 3, Part II	Justification/reason for changes	Proposed NPA 2014-07 (A) text	Relevant Part
(iii~~c~~) changes in the wind through values of operational significance. **AMC1 MET.TR.225(c)(1)** The threshold values should~~all~~ be established by the meteorological authority in consultation with the appropriate ATS authority and operators concerned, taking into account changes in the wind which would:	Transposed with no change. Second sentence transposed into AMC as not necessarily all of all significant values are included in TREND to require a change in surface wind.	**(iii)** changes in the wind through values of operational significance. **AMC1 MET.TR.225(c)(1)** The threshold values should be established by the meteorological authority in consultation with the appropriate ATS authority and operators concerned, taking into account changes in the wind which would:	MET.TR
(a~~1~~) require a change in runway(s) in use; and	Transposed with no change.	**(a)** require a change in runway(s) in use; and	MET.TR
(b~~2~~) indicate that the runway tailwind and crosswind components will change through values representing the main operating limits for typical aircraft operating at the aerodrome.	Transposed with no change.	**(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.	MET.TR
~~2.2.3~~ **MET.TR.225 (c)(2)** Visibility	Transposed with no change.	**MET.TR.225(c)(2)** Visibility	MET.TR
(i) When the visibility is expected to improve and change to or pass through one or more of the following values, or when the visibility is expected to deteriorate and pass through one or more of the following values: 150, 350, 600, 800, 1 500 or3 000 m, the trend forecast shall indicate the change. **(ii)** When significant numbers of flights are conducted in accordance with the visual flight	Transposed with no change.	**(i)** When the visibility is expected to improve and change to or pass through one or more of the following values, or when the visibility is expected to deteriorate and pass through one or more of the following values: 150, 350, 600, 800, 1 500 or3 000 m, the trend forecast shall indicate the change. **(ii)** When significant numbers of flights are	MET.TR

ICAO Annex 3, Part II	Justification/reason for changes	Proposed NPA 2014-07 (A) text	Relevant Part
rules, the forecast shall additionally indicate changes to or passing through 5 000 m.		conducted in accordance with the visual flight rules, the forecast shall additionally indicate changes to or passing through 5 000 m.	
~~Note.— In trend forecasts appended to local routine and special reports, visibility refers to the forecast visibility along the runway(s);~~ **(iii)** ~~i~~In trend forecasts appended to METAR~~ and SPECI~~, visibility shall refer~~s~~ to the forecast prevailing visibility.	This Note is deleted as the issuing of TREND forecasts appended to local routine reports does not reflect a practice followed by MET providers in Europe. Second part: Upgraded to IR, Annex 3 text considered not appropriate as a note.	**(iii)** In trend forecasts appended to METAR visibility shall refer to the forecast prevailing visibility.	MET.TR
~~2.2.4~~ **MET.TR.225(c)(3)** Weather phenomena	Transposed with no change.	**MET.TR.225(c)(3)** Weather phenomena	MET.TR
~~2.2.4.1~~ **(i)** The trend forecast shall indicate the expected onset, cessation or change in intensity of any~~one or more~~ of the following weather phenomena or combinations thereof:	Transposed with no change.	**(i)** The trend forecast shall indicate the expected onset, cessation or change in intensity of any of the following weather phenomena or combinations thereof:	MET.TR
(A) — freezing precipitation	Transposed with no change.	**(A)** freezing precipitation	MET.TR
(B) — moderate or heavy precipitation ~~(including showers thereof)~~	Editorial change only.	**(B)** moderate or heavy precipitation	MET.TR
(C) — thunderstorm (with precipitation)	Transposed with no change.	**(C)** thunderstorm (with precipitation)	MET.TR

ICAO Annex 3, Part II	Justification/reason for changes	Proposed NPA 2014-07 (A) text	Relevant Part
(D) — duststorm	Transposed with no change.	**(D)** duststorm	MET.TR
(E) — sandstorm;	Transposed with no change.	**(E)** sandstorm;	MET.TR
~~— other weather phenomena given in Appendix 3, 4.4.2.3, as agreed by the meteorological authority with the ATS authority and operators concerned.~~	Not transposed as no binding elements exist here.	---	---
~~2.2.4.2~~ **(ii)** The trend forecast shall indicate the expected onset or cessation of any ~~one or more~~ of the following weather phenomena or combinations thereof:	Editorial change only.	**(ii)** The trend forecast shall indicate the expected onset or cessation of any of the following weather phenomena or combinations thereof:	MET.TR
(A) — freezing fog	Transposed with no change.	(A) freezing fog	MET.TR
(B) — low drifting dust, sand or snow	Transposed with no change.	(B) low drifting dust, sand or snow	MET.TR
(C) — blowing dust, sand or snow	Transposed with no change.	(C) blowing dust, sand or snow	MET.TR
(D) — thunderstorm (without precipitation)	Transposed with no change.	(D) thunderstorm (without precipitation)	MET.TR
(E) — squall	Transposed with no change.	(E) squall	MET.TR
(F) — funnel cloud (tornado or waterspout).	Transposed with no change.	(F) funnel cloud (tornado or waterspout).	MET.TR
~~2.2.4.3~~ **(iii)** The total number of phenomena reported in ~~2.2.4.1 and 2.2.4.2~~ (i) and (ii) shall not exceed three.	Transposed with no change. Editorial change only.	**(iii)** The total number of phenomena reported in (i) and (ii) shall not exceed three.	MET.TR

ICAO Annex 3, Part II	Justification/reason for changes	Proposed NPA 2014-07 (A) text	Relevant Part
~~2.2.4.4~~ **(iv)** The expected end of occurrence of the weather phenomena shall be indicated by the abbreviation "NSW".	Transposed with no change.	**(iv)** The expected end of occurrence of the weather phenomena shall be indicated by the abbreviation 'NSW'.	MET.TR
~~2.2.5~~ **MET.TR.225(c)(4)** Clouds	Transposed with no change.	**MET.TR.225(c)(4)** Clouds	MET.TR
(i) When the height of the base of a cloud layer of BKN or OVC extent is expected to lift and change to or pass through one or more of the following values, or when the height of the base of a cloud layer of BKN or OVC extent is expected to lower and pass through one or more of the following values: 30, 60, 150, 300 and 450 m (100, 200, 500, 1 000 and 1 500 ft), the trend forecast shall indicate the change. **(ii)** When the height of the base of a cloud layer is below or is expected to fall below or rise above 450 m (1 500 ft), the trend forecast shall also indicate changes in cloud amount from FEW, or SCT increasing to BKN or OVC, or changes from BKN or OVC decreasing to FEW or SCT. **(iii)** When no clouds of operational significance are forecast and "CAVOK" is not appropriate, the abbreviation "NSC" shall be used.	Transposed with no change.	**(i)** When the height of the base of a cloud layer of BKN or OVC extent is expected to lift and change to or pass through one or more of the following values, or when the height of the base of a cloud layer of BKN or OVC extent is expected to lower and pass through one or more of the following values: 100, 200, 500, 1 000 and 1 500 ft (30, 60, 150, 300 and 450 m), the trend forecast shall indicate the change. **(ii)** When the height of the base of a cloud layer is below or is expected to fall below or rise above 1 500 ft (450 m), the trend forecast shall also indicate changes in cloud amount from FEW, or SCT increasing to BKN or OVC, or changes from BKN or OVC decreasing to FEW or SCT. **(iii)** When no clouds of operational significance are forecast and 'CAVOK' is not appropriate, the abbreviation 'NSC' shall be used.	MET.TR

ICAO Annex 3, Part II	Justification/reason for changes	Proposed NPA 2014-07 (A) text	Relevant Part
~~2.2.6~~ **MET.TR.225(c)(5)** Vertical visibility	Transposed with no change.	**MET.TR.225(c)(5)** Vertical visibility	MET.TR
When the sky is expected to remain or become obscured and vertical visibility observations are available at the aerodrome, and the vertical visibility is forecast to improve and change to or pass through one or more of the following values, or when the vertical visibility is forecast to deteriorate and pass through one or more of the following values: 30, 60, 150 or 300 m (100, 200, 500 or 1 000 ft), the trend forecast shall indicate the change.	Transposed with no change.	When the sky is expected to remain or become obscured and vertical visibility observations are available at the aerodrome, and the vertical visibility is forecast to improve and change to or pass through one or more of the following values, or when the vertical visibility is forecast 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), the trend forecast shall indicate the change.	MET.TR
~~2.2.7~~ **MET.TR.225(c)(6)** Additional criteria	Transposed with no change.	**MET.TR.225(c)(6)** Additional criteria	MET.TR
~~Criteria for the indication of changes based on local aerodrome operating minima, additional to those specified in 2.2.2 to2.2.6, shall be used as agreed between the meteorological authority and the operator(s) concerned.~~ The aerodrome meteorological office and the users may agree on additional criteria to be used, based on local aerodrome operating minima.	Editorial change to improve text.	The aerodrome meteorological office and the users may agree on additional criteria to be used, based on local aerodrome operating minima.	MET.TR
~~2.3~~ **MET.TR.225(c)(7)** Use of change groups	Transposed with no change.	**MET.TR.225(c)(7)** Use of change groups	MET.TR
~~Note. — —~~ **GM1 MET.TR.225(c)(7)(ii)**	This Note is not transposed but	**GM1 MET.TR.225(c)(7)(ii) Aerodrome**	MET.TR

ICAO Annex 3, Part II	Justification/reason for changes	Proposed NPA 2014-07 (A) text	Relevant Part
Aerodrome forecasts - Landing (TREND) Guidance on the use of change indicators in trend forecasts is given in ~~Appendix 3, Table A3-3.~~the table below.	replaced by Table A3-3	**forecasts - Landing (TREND)** Guidance on the use of change indicators in trend forecasts is given in the table below. [Table A3-3 is inserted under this GM]	
~~2.3.1~~ **(i)** When a change is expected to occur, the trend forecast shall begin with one of the change indicators "BECMG" or "TEMPO".	Transposed with no change.	**(i)** When a change is expected to occur, the trend forecast shall begin with one of the change indicators 'BECMG' or 'TEMPO'.	MET.TR
~~2.3.2~~ **(ii)** The change indicator "BECMG" shall be used to describe forecast changes where the meteorological conditions are expected to reach or pass through specified values at a regular or irregular rate. The period during which, or the time at which, the change is forecast to occur shall be indicated, using the abbreviations "FM", "TL" or "AT", as appropriate, each followed by a time group in hours and minutes. **AMC1 MET.TR.225(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~~all~~ 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~~all~~ be omitted and only "TL" and its associated time	Transposed with no change. The text is split into IR and AMC.	**(ii)** The change indicator 'BECMG' shall be used to describe forecast changes where the meteorological conditions are expected to reach or pass through specified values at a regular or irregular rate. The period during which, or the time at which, the change is forecast to occur shall be indicated, using the abbreviations 'FM', 'TL' or 'AT', as appropriate, each followed by a time group in hours and minutes. **AMC1 MET.TR.225(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	MET.TR

ICAO Annex 3, Part II	Justification/reason for changes	Proposed NPA 2014-07 (A) text	Relevant Part
group should~~all~~ 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~~all~~ be omitted and only "FM" and its associated time group should~~all~~ 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~~all~~ 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~~all~~ be omitted and the change indicator "BECMG" should~~all~~ be used alone.		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.	

ICAO Annex 3, Part II	Justification/reason for changes	Proposed NPA 2014-07 (A) text	Relevant Part
~~2.3.3~~ **(iii)** The change indicator "TEMPO" shall be used to describe forecast temporary fluctuations in the meteorological conditions which reach or pass specified values and last for a period of less than one hour in each instance and, in the aggregate, cover less than one-half of the period during which the fluctuations are forecast to occur. The period during which the temporary fluctuations are forecast to occur shall be indicated, using the abbreviations "FM" and/or "TL", as appropriate, each followed by a time group in hours and minutes. **AMC1 MET.TR.225(c)(7)(iii) (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~~all~~ 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~~all~~ be omitted and only "TL" and its associated time group should~~all~~ 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~~all~~ be omitted and	Transposed with no change. The text is split into IR and AMC.	**(iii)** The change indicator 'TEMPO' shall be used to describe forecast temporary fluctuations in the meteorological conditions which reach or pass specified values and last for a period of less than one hour in each instance and, in the aggregate, cover less than one-half of the period during which the fluctuations are forecast to occur. The period during which the temporary fluctuations are forecast to occur shall be indicated, using the abbreviations 'FM' and/or 'TL', as appropriate, each followed by a time group in hours and minutes. **AMC1 MET.TR.225(c)(7)(iii) (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	MET.TR

ICAO Annex 3, Part II	Justification/reason for changes	Proposed NPA 2014-07 (A) text	Relevant Part
only "FM" and its associated time group should~~all~~ 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~~all~~ be omitted and the change indicator "TEMPO" should~~all~~ be used alone.		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.	
~~2.4~~ **MET.TR.225(c)(8) Use of the probability indicator**	Transposed with no change.	**MET.TR.225(c)(8) Use of the probability indicator**	MET.TR
The indicator "PROB" shall not be used in trend forecasts.	Transposed with no change.	The indicator 'PROB' shall not be used in trend forecasts.	MET.TR
~~**3. CRITERIA RELATED TO FORECASTS FOR TAKE-OFF**~~	---	---	---
~~**3.1 Format of forecasts for take-off**~~	---	---	---
~~Recommendation.~~ **MET.TR.226 Forecasts – take-off** ~~The format of the forecast should be as agreed between the meteorological authority and the operator concerned~~. **(b)** The order of the elements and the terminology, units and scales	First sentence is transposed in MET.TR.226(a) which is based on the transposition of provision contained in chapter 6 of ICAO Annex 3.	**MET.TR.226 Forecasts – take-off** **(b)** The order of the elements and the terminology, units and scales used in forecasts for take-off shall be the same as those used in reports for the same	MET.TR

ICAO Annex 3, Part II	Justification/reason for changes	Proposed NPA 2014-07 (A) text	Relevant Part
used in forecasts for take-off shallould be the same as those used in reports for the same aerodrome.		aerodrome.	
3.2 Amendments to forecasts for take-off	---	---	MET.TR
Recommendation. —— **AMC1 MET.TR.226 Forecasts – take-off** **(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 authority office and the operators concerned. **(b)** The criteria should be consistent with the corresponding criteria for special reports established for the aerodrome. in accordance with Appendix 3, 2.3.1	The meteorological authority is considered to be in this case the meteorological provider.	**AMC1 MET.TR.226 Forecasts – take-off** **(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.	MET.TR
4. CRITERIA RELATED TO AREA FORECASTS FOR LOW-LEVEL FLIGHTS	The transposition of the area forecast for low-level flights is pending as the Agency is awaiting for more clarity on the European approach to cover GAMET.	---	---
4.1 Format and content of GAMET area forecasts	---	---	---

ICAO Annex 3, Part II	Justification/reason for changes	Proposed NPA 2014-07 (A) text	Relevant Part
~~When prepared in GAMET format, area forecasts shall contain two sections: Section I related to information on en-route weather phenomena hazardous to low-level flights, prepared in support of the issuance of AIRMET information, and Section II related to additional information required by low-level flights. The content and order of elements in a GAMET area forecast, when prepared, shall be in accordance with the template shown in Table A5-3. Additional elements in Section II shall be included in accordance with regional air navigation agreement. Elements which are already covered by a SIGMET message shall be omitted from GAMET area forecasts.~~	Currently not transposed.		MET.TR
~~**4.2 Amendments to GAMET area forecasts**~~	---	---	MET.TR
~~When a weather phenomenon hazardous to low-level flights has been included in the GAMET area forecast and the phenomenon forecast does not occur, or is no longer forecast, a GAMET AMD shall be issued, amending only the weather element concerned.~~	Currently not transposed.		MET.TR
~~Note.— Specifications regarding the issuance of AIRMET information amending the area forecast in respect of weather phenomena hazardous for low-level flights are given in Appendix 6.~~	Currently not transposed.		MET.TR

ICAO Annex 3, Part II	Justification/reason for changes	Proposed NPA 2014-07 (A) text	Relevant Part
~~**4.3 Content of area forecasts for low-level flights in chart form**~~	---	---	MET.TR
~~4.3.1~~ **MET.TR.215 Area forecasts for low-level flights** **(a)** When chart form is used for area forecasts for low-level flights, the forecast of upper wind and upper-air temperature shall be issued for points separated by no more than 500 km (300 NM) and for at least the following altitudes: 600, 1 500 and 3 000 m (2 000, 5 000 and 10 000 ft), and 4 500 m (15 000 ft) in mountainous areas.	Transposed with no change.	**MET.TR.215 Area forecasts for low-level flights** **(a)** When chart form is used for area forecasts for low-level flights, the forecast of upper wind and upper-air temperature shall be issued for points separated by no more than 300 NM (500 km) and for at least the following altitudes: 2 000, 5 000 and 10 000 ft (600, 1 500 and 3 000 m), and 15 000 ft (4 500 m) in mountainous areas.	MET.TR
~~4.3.2~~ **(b)** When chart form is used for area forecasts for low-level flights, the forecast of SIGWX phenomena shall be issued as low-level SIGWX forecast for flight levels up to 100 (or up to flight level 150 in mountainous areas, or higher, where necessary). Low-level SIGWX forecasts shall include the following items:	Transposed with no change.	**(b)** When chart form is used for area forecasts for low-level flights, the forecast of SIGWX phenomena shall be issued as low-level SIGWX forecast for flight levels up to 100 (or up to flight level 150 in mountainous areas, or higher, where necessary). Low-level SIGWX forecasts shall include the following items:	MET.TR
(1~~a~~) the phenomena warranting the issuance of a SIGMET as given in Table 1 of Appendix 1 ~~Appendix 6~~ and which are expected to affect low-level flights; and	Transposed with no change.	**(1)** the phenomena warranting the issuance of a SIGMET as given in Table 1 of Appendix 1 and which are expected to affect low-level flights; and	MET.TR

ICAO Annex 3, Part II	Justification/reason for changes	Proposed NPA 2014-07 (A) text	Relevant Part
(2~~b~~) the following elements in area forecasts for low-level flights: ~~as given in Table A5-3 except elements concerning:~~ surface visibility, significant weather, mountain obscuration, cloud, icing, turbulence, mountain wave, height of zero degree isotherm.	The amendment is made to specify the rules as the listed elements are those that are referred to in Table A5-3.	**(2)** the following elements in area forecasts for low-level flights: surface visibility, significant weather, mountain obscuration, cloud, icing, turbulence, mountain wave, height of zero degree isotherm.	MET.TR
~~**(1)** upper winds and temperatures; and~~	Changes made consequently to the change above	---	---
~~**(2)** forecast QNH.~~	Changes made consequently to the change above	---	---
~~NOTE. GUIDANCE ON T~~ **GM1 MET.TR.215 Area forecasts for low level flights** The ~~use of~~ terms "ISOL", "OCNL" and "FRQ" referring to cumulonimbus and towering cumulus clouds, and thunderstorms ~~is~~are given as prescribed in MET.TR.210(c)(5) ~~Appendix 6.~~	Transposed with no change.	**GM1 MET.TR.215 Area forecasts for low level flights** The terms 'ISOL', 'OCNL' and 'FRQ' referring to cumulonimbus and towering cumulus clouds, and thunderstorms are given as prescribed in MET.TR.201(c)(5).	MET.TR
~~**4.4 Exchange of area forecasts for low-level flights**~~	---	---	---
GM3 MET.OR.110(a) Information exchange requirements Area forecasts for low-level flights prepared in support of the issuance of AIRMET information ~~shall be~~are exchanged between aerodrome meteorological offices and/or meteorological	This paragraph is downgraded to guidance material to MET.OR.110(a) as it is, in practice today, considered to be more of information nature than a requirement in itself.	**GM3 MET.OR.110(a) Information exchange requirements** Area forecasts for low-level flights prepared in support of the issuance of AIRMET information are exchanged between aerodrome meteorological offices and/or	MET.OR

ICAO Annex 3, Part II	Justification/reason for changes	Proposed NPA 2014-07 (A) text	Relevant Part
watch offices responsible for the issuance of flight documentation for low-level flights in the flight information regions concerned.		meteorological watch offices responsible for the issuance of flight documentation for low-level flights in the flight information regions concerned.	

INFORMATION.

The **'Table A5-1. Template for TAF'** is transposed with no change.

For brevity reasons, it is not reproduced in this document and can be found in **Table 3 of Appendix 1** to this NPA.

~~Table A5-2.~~ GM3 MET.TR.225(c) Aerodrome forecasts (TAF) Use of change and time indicators in TAF

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; nn = 30 or nn = 40 only;	—
	TEMPO	nd1nd1nh1nh1/nd2nd2nh2nh2		probability of occurrence of temporary fluctuations

			to be placed after the element(s) concerned	

INFORMATION.

The **'Table A5-3. Template for GAMET'** is not transposed as it is not covered under this NPA.

For brevity reasons, it is not reproduced in this document.

INFORMATION.

The **'Table A5-4. Ranges and resolutions for the numerical elements included in TAF'** is transposed with no change.

For brevity reasons, it is not reproduced in this document and can be found in **Table 3a of Appendix 1** to this NPA.

GM1 MET.TR.225(c) Aerodrome forecasts (TAF) Example ~~A5-1.~~ 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 0000 UTC valid from 0600 UTC to 2400 UTC on the 16th of the month; surface wind direction 130 degrees; wind speed 5 metres per second; visibility 9 kilometres, broken cloud at 600 metres; becoming between 0600 UTC and 0800 UTC on the 16th of the month, scattered cumulonimbus cloud at 450 metres and broken cloud at 600 metres; temporarily between 0800 UTC and 1200 UTC on the 16th of the month surface wind direction 170 degrees; wind speed 6 metres per second gusting to 12 metres per second; visibility 1 000 metres in a thunderstorm with moderate rain, scattered cumulonimbus cloud at 300 metres and broken cloud at 600 metres; from 1230 UTC on the 16th of the month surface wind direction 150 degrees; wind speed 4 metres per second; visibility 10 kilometres or more; and broken cloud at 600 metres.

**** Fictitious location***

Note.— In this example, the primary units 'metre per second' and 'metre' were used for wind speed and height of cloud base, respectively. However, in accordance with Annex 5, the corresponding non-SI alternative units 'knot' and 'foot' may be used instead.

GM2 MET.TR.225(c) Aerodrome forecasts (TAF) Example of ~~A5-2.~~ c~~C~~ancellation 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 1500 UTC cancelling the previously issued TAF valid from 0600 UTC to 2400 UTC on the 16th of the month.

** Fictitious location*

INFORMATION.

The **'Example A5-3. GAMET area forecast'** is not transposed as it is not covered under this NPA.

For brevity reasons, it is not reproduced in this document.

ICAO Annex 3, Part II	Justification/reason for changes	Proposed NPA 2014-07 (A) text	Relevant Part
~~**APPENDIX 6. TECHNICAL SPECIFICATIONS RELATED TO SIGMET AND AIRMET INFORMATION, AERODROME WARNINGS AND WIND SHEAR WARNINGS AND ALERTS**~~ ~~**(See Chapter 7 of this Annex.)**~~	---	---	---

ICAO Annex 3, Part II	Justification/reason for changes	Proposed NPA 2014-07 (A) text	Relevant Part
~~Note.— Data type designators to be used in abbreviated headings for SIGMET, AIRMET, tropical cyclone and volcanic ash advisory messages are given in WMO Publication No. 386, Manual on the Global Telecommunication System.~~	This Note is not transposed as it is not within the scope of the provision of meteorological services.	---	---
~~**1. SPECIFICATIONS RELATED TO SIGMET INFORMATION**~~	---	---	---
~~**1.1 Format of**~~ **MET.TR.205 SIGMET messages** ~~**messages**~~	N/A	**MET.TR.205 SIGMET messages**	MET.TR
~~1.1.1~~ **(a)** The content and order of elements in a SIGMET message shall be in accordance with the template shown in Table 1 of Appendix 1 ~~A6-1~~.	Transposed with no change. Reference amendment only	**(a)** The content and order of elements in a SIGMET message shall be in accordance with the template shown in Table 1 of Appendix 1.	MET.TR
~~1.1.2 Messages containing SIGMET information shall be identified as: "SIGMET".~~	This provision is not transposed as it is not considered necessary: it is explicitly mentioned in MET.OR.205 (a) and according to Table 1 of Appendix 1 the message identification is mandatory.	---	---
~~1.1.3~~ **(b)** The sequence number referred to in the template in Table ~~A6-1~~ 1 of Appendix 1shall correspond with the number of SIGMET messages, independent of SIGMET type, issued for the flight information region since 0001 UTC	The deleted paragraph is already covered in AMC1 MET.OR.205(a) The term 'independent of SIGMET type' has been added. Neither in	**(b)** The sequence number referred to in the template in Table 1 of Appendix 1shall correspond with the number of SIGMET messages, independent of SIGMET type, issued for the flight information region	MET.TR

ICAO Annex 3, Part II	Justification/reason for changes	Proposed NPA 2014-07 (A) text	Relevant Part
on the day concerned. ~~The meteorological watch offices whose area of responsibility encompasses more than one FIR and/or CTA shall issue separate SIGMET messages for each FIR and/or CTA within their area of responsibility.~~	ICAO Annex 3 nor in the EUR SIGMET and AIRMET Guide (EUR Doc 014) is a clear statement if the sequence numbering is related to the SIGMET type or not. A pilot does not differentiate between the SIGMET types and could be confused if there are SIGMETs with separate sets of numberings (e.g. two 'SIGMET 1' are active, one for an en-route phenomena such as TURB, one for a volcanic ash - VA).	since 0001 UTC on the day concerned.	
~~1.1.4~~ **(c)** ~~In accordance with the template in Table A6-1, o~~Only one of the following phenomena listed in Table 1 of Appendix 1 shall be included in a SIGMET message, using the abbreviations. ~~as indicated below:~~	Transposed with no change.	**(c)** Only one of the following phenomena listed in Table 1 of Appendix 1 shall be included in a SIGMET message, using the abbreviations.	MET.TR
~~At cruising levels (irrespective of altitude):~~	Not transposed as the abbreviations are based on the phenomena but not on the cruising levels.	---	---
~~Thunderstorm~~ ~~— obscured OBSC TS~~ ~~— embedded EMBD TS~~ ~~— frequent FRQ TS~~	These abbreviations are not transposed as they are already included in the Table 1 of Appendix 1 referred to in (c) above. There is no need for duplication.	---	---

ICAO Annex 3, Part II	Justification/reason for changes	Proposed NPA 2014-07 (A) text	Relevant Part
~~— squall line SQL TS~~ ~~— obscured with hail OBSC TSGR~~ ~~— embedded with hail EMBD TSGR~~ ~~— frequent, with hail FRQ TSGR~~ ~~— squall line with hail SQL TSGR~~ ~~tropical cyclone~~ ~~— tropical cyclone with 10-minute mean surface wind speed of 17 m/s (34 kt) or more~~ ~~TC (+ cyclone name)~~ ~~Turbulence~~ ~~— severe turbulence SEV TURB~~ ~~Icing~~ ~~— severe icing SEV ICE~~ ~~— severe icing due to freezing rain SEV ICE (FZRA)~~ ~~mountain wave~~ ~~— severe mountain wave SEV MTW~~ ~~Duststorm~~ ~~— heavy duststorm HVY DS~~ ~~Sandstorm~~ ~~— heavy sandstorm HVY SS~~			

ICAO Annex 3, Part II	Justification/reason for changes	Proposed NPA 2014-07 (A) text	Relevant Part
~~volcanic ash~~ ~~— volcanic ash VA (+ volcano name, if known)~~ ~~radioactive cloud RDOACT CLD~~			
~~1.1.5 SIGMET information shall not contain unnecessary descriptive material. In describing the weather phenomena for which the SIGMET is issued, no descriptive material additional to that given in 1.1.4 shall be included. SIGMET information concerning thunderstorms or a tropical cyclone shall not include references to associated turbulence and icing.~~	This paragraph is not transposed as it is considered redundant with the template in the table. When issuing SIGMET compliant to the table this information is dispensable.	---	---
~~1.1.6 Recommendation. —~~ **AMC1 MET.OR.205(b) SIGMET message** ~~Meteorological watch offices in a position to do so should issue~~ SIGMET information should be issued in digital form, in addition to the issuance of this SIGMET information in abbreviated plain language. ~~1.1.1.~~	Transposed with no change. Editorial and reference changes only.	**AMC1 MET.OR.205(b) SIGMET message** SIGMET information should be issued in digital form, in addition to the issuance of this SIGMET information in abbreviated plain language.	MET.OR
~~1.1.7~~ **MET.TR.205 SIGMET message (d)** SIGMET, if disseminated in digital form, shall be: (1) formatted in accordance with a globally interoperable information exchange model and shall use ~~extensible markup language (XML)/~~geography markup language (GML).	XML is not transposed in order to avoid the confusion between both languages that are used. Using GML implies that specific XML language is used.	**MET.TR.205 SIGMET message** **(d)** SIGMET, if disseminated in digital form, shall be: **(1)** formatted in accordance with a globally interoperable information exchange model and shall use geography	MET.TR

ICAO Annex 3, Part II	Justification/reason for changes	Proposed NPA 2014-07 (A) text	Relevant Part
		markup language (GML).	
~~1.1.8 SIGMET if disseminated in digital form shall be~~ (2) accompanied by the appropriate metadata.	Transposed with no change.	**(2)** accompanied by the appropriate metadata.	MET.TR
~~Note.—~~ **GM1 MET.TR.205(d) SIGMET message** 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).	Transposed with no change.	**GM1 MET.TR.205(d) SIGMET message** 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).	MET.TR
~~1.1.9~~ **AMC1 MET.TR.205(a) SIGMET message** ~~Recommendation.—~~SIGMET, when issued in graphical format, should be as specified in Appendix 1 of ICAO Annex 3.	Transposed with no change. Editorial change only.	**AMC1 MET.TR.205(a) SIGMET message** SIGMET, when issued in graphical format, should be as specified in Appendix 1 of ICAO Annex 3.	MET.TR
~~**1.2 Dissemination of SIGMET messages**~~	---	---	---
~~1.2.1~~ **GM1 MET.OR.205(a) SIGMET message** SIGMET messages ~~shall be~~are disseminated to meteorological watch offices and WAFCs and to other meteorological offices ~~in accordance with regional air navigation agreement~~. SIGMET messages for volcanic ash ~~shall~~are also ~~be~~ disseminated to VAACs.	This paragraph is considered to be guidance material rather than a requirement in itself and is therefore downgraded to GM. The wording has been changed to make it GM.	**GM1 MET.OR.205(a) SIGMET message** SIGMET messages are disseminated to meteorological watch offices and WAFCs and to other meteorological offices. SIGMET messages for volcanic ash are also disseminated to VAACs.	MET.OR

ICAO Annex 3, Part II	Justification/reason for changes	Proposed NPA 2014-07 (A) text	Relevant Part
~~1.2.2~~ **GM2 MET.OR.205(a) SIGMET message** SIGMET messages ~~shall be~~are disseminated to international OPMET databanks and the centres designated ~~by regional air navigation agreement~~ for the operation of aeronautical fixed service satellite distribution systems~~, in accordance with regional air navigation agreement~~.	This paragraph is considered to be more guidance material that a requirement in itself and is therefore downgraded to GM. The wording has been changed to make it GM. MET.OR.110 covers the exchange of MET information.	**GM2 MET.OR.205(a) SIGMET message** SIGMET messages are disseminated to international OPMET databanks and the centres designated for the operation of aeronautical fixed service satellite distribution systems.	MET.OR
~~**2. SPECIFICATIONS RELATED TO AIRMET INFORMATION**~~	---	---	---
~~**2.1 Format of AIRMET messages**~~	---	---	---
~~2.1.1~~ **MET.TR.210 AIRMET message** **(a)** The content and order of elements in an AIRMET message shall be in accordance with the template shown in Table 1 of Appendix 1 ~~A6-1~~.	Transposed with no change.	**MET.TR.210 AIRMET message** (a) The content and order of elements in an AIRMET message shall be in accordance with the template shown in Table 1 of Appendix 1.	MET.TR
~~2.1.2~~ **(b)** The sequence number referred to in the template in Table 1 of Appendix 1 ~~A6-1~~ shall correspond with the number of AIRMET messages issued for the flight information region since 00.01 UTC on the day concerned. ~~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~~	The deleted paragraph is already covered in AMC1 MET.OR.205(a)	(b) The sequence number referred to in the template in Table 1 of Appendix 1 shall correspond with the number of AIRMET messages issued for the flight information region since 00.01 UTC on the day concerned.	MET.TR

ICAO Annex 3, Part II	Justification/reason for changes	Proposed NPA 2014-07 (A) text	Relevant Part
~~of responsibility.~~			
~~2.1.3~~ **GM1 TR.210(b) AIRMET message** The flight information region may~~shall~~ be divided in sub-areas.~~, as necessary.~~	This paragraph is considered to be more guidance material that a requirement in itself. The wording has been changed to make it GM.	**GM1 MET.TR.210(b) AIRMET message** The flight information region may be divided in sub-areas.	MET.OR
~~2.1.4~~ **MET.TR.210 AIRMET message (c)** ~~In accordance with the template in Table A6-1, o~~Only one of the following phenomena listed in Table 1 of Appendix 1 shall be included in an AIRMET message, using the abbreviations~~ as indicated below:~~ and when the phenomena is	This paragraph is amended for better legal drafting and in order to make the link with the paragraph below.	**MET.TR.210 AIRMET message** **(c)** Only one of the following phenomena listed in Table 1 of Appendix 1 shall be included in an AIRMET message, using the abbreviation and when the phenomena is	MET.TR
~~At cruising levels~~ below flight level 100 ~~(~~or below flight level 150 in mountainous areas, or higher, where necessary.~~):~~	Reference to cruising levels is not relevant as the abbreviations are based on the phenomena but not on the cruising levels.	below flight level 100 or below flight level 150 in mountainous areas, or higher, where necessary.	MET.TR
~~— surface wind speed~~ ~~— widespread mean surface wind speed above 15 m/s (30 kt)~~ ~~SFC WSPD (+ wind speed and units)~~ ~~— surface visibility~~ ~~— widespread areas affected by reduction of visibility to less than 5 000 m, including the weather phenomenon causing the reduction of visibility~~	These abbreviations are not transposed as they are already included in the Table 1 of Appendix 1 referred to in (c) above.	---	---

ICAO Annex 3, Part II	Justification/reason for changes	Proposed NPA 2014-07 (A) text	Relevant Part
~~SFC VIS (+ visibility) (+ one of the following weather phenomena or combinations phenomenon causing the reduction thereof: BR, DS, DU, DZ, FC, FG, FU, GR, GS, HZ, IC, PL, PO, RA, SA, SG, SN, SQ, SS or VA)~~ ~~— thunderstorms~~ ~~– isolated thunderstorms without hail ISOL TS~~ ~~– occasional thunderstorms without hail OCNL TS~~ ~~– isolated thunderstorms with hail ISOL TSGR~~ ~~– occasional thunderstorms with hail OCNL TSGR~~ ~~— mountain obscuration~~ ~~– mountains obscured MT OBSC~~ ~~— cloud~~ ~~– widespread areas of broken or overcast cloud with height of base less than 300 m (1 000 ft) above ground level:~~ ~~– broken BKN CLD (+ height of the base and top and units)~~ ~~– overcast OVC CLD (+ height of the base and top and units)~~ ~~– cumulonimbus clouds which are:~~ ~~– isolated ISOL CB~~ ~~–occasional OCNL CB~~			

ICAO Annex 3, Part II	Justification/reason for changes	Proposed NPA 2014-07 (A) text	Relevant Part
~~— frequent FRQ CB~~ ~~— towering cumulus clouds which are:~~ ~~— isolated ISOL TCU~~ ~~— occasional OCNL TCU~~ ~~— frequent FRQ TCU~~ ~~— icing~~ ~~— moderate icing (except for icing in convective clouds) MOD ICE~~ ~~— turbulence~~ ~~— moderate turbulence (except for turbulence in convective clouds) MOD TURB~~ ~~— mountain wave~~ ~~— moderate mountain wave MOD MTW~~			
~~2.1.5 AIRMET information shall not contain unnecessary descriptive material. In describing the weather phenomena for which the AIRMET is issued, no descriptive material additional to that given in 2.1.4 shall be included. AIRMET information concerning thunderstorms or cumulonimbus clouds shall not include references to associated turbulence and icing.~~	This paragraph is not transposed as it is considered redundant with the template in the table.	---	---
~~Note.— The specifications for SIGMET information which is also applicable to low-level~~	Not transposed, since this note is considered unnecessary.	---	---

ICAO Annex 3, Part II	Justification/reason for changes	Proposed NPA 2014-07 (A) text	Relevant Part
~~flights are given in 1.1.4.~~			
~~**2.2 Dissemination of AIRMET messages**~~	---	---	---
~~2.2.1 Recommendation.— —~~**GM1 MET.OR.210(a) AIRMET** AIRMET messages ~~should be~~are disseminated to meteorological watch offices in adjacent flight information regions and to other meteorological watch offices or aerodrome meteorological offices, as agreed by the ~~meteorological~~ competent authorities concerned.	This paragraph is considered to be more guidance material than a means of compliance in itself and is therefore downgraded to GM. The wording has been changed to make it GM.	**GM1 MET.OR.210(a) AIRMET** AIRMET messages are disseminated to meteorological watch offices in adjacent flight information regions and to other meteorological watch offices or aerodrome meteorological offices, as agreed by the competent authorities concerned.	MET.OR
~~2.2.2 Recommendation.— —~~**GM2 MET.OR.210(a) AIRMET** AIRMET messages ~~should be~~are transmitted to international operational meteorological databanks and the centres~~ designated by regional air navigation agreement~~ for the operation of aeronautical fixed service satellite distribution systems.~~, in accordance with regional air navigation agreement.~~	This paragraph is considered to be more guidance material than a means of compliance in itself. The wording has been changed to make it GM. The deleted text is considered redundant.	**GM2 MET.OR.210(a) AIRMET** AIRMET messages are transmitted to international operational meteorological databanks and the centres for the operation of aeronautical fixed service satellite distribution systems.	MET.OR
~~**3. SPECIFICATIONS RELATED TO SPECIAL AIR REPORTS**~~	---	---	---
~~Note.— This appendix deals with the uplink of special air reports. The general specifications related to special air reports are in Appendix 4.~~	This note is not transposed as it is link to the below related to data link operations.	---	---

ICAO Annex 3, Part II	Justification/reason for changes	Proposed NPA 2014-07 (A) text	Relevant Part
~~3.1 Recommendation.— Special air reports should be uplinked for 60 minutes after their issuance.~~	This recommendation is not considered as being in the scope if this task - Data link is covered by other future rules.	---	---
~~3.2 Recommendation.— Information on wind and temperature included in automated special air reports should not be uplinked to other aircraft in flight.~~	This recommendation is not considered as being in the scope if this task - Data link is covered by other future rules.	---	---
~~**4. DETAILED CRITERIA RELATED TO SIGMET AND AIRMET MESSAGES AND SPECIAL AIR REPORTS (UPLINK)**~~	---	---	---
~~**4.1 Identification of the flight information region**~~	---	---	---
~~Recommendation.—~~ **AMC1 MET.TR.205(b) SIGMET message** In cases where the airspace is divided into a flight information region (FIR) and an upper flight information region (UIR), the SIGMET should be identified by the location indicator of the air traffic services unit serving the FIR.	Transposed with no change.	**AMC1 MET.TR.205(b) SIGMET message** In cases where the airspace is divided into a flight information region (FIR) and an upper flight information region (UIR), the SIGMET should be identified by the location indicator of the air traffic services unit serving the FIR.	MET.TR
~~Note.—~~ **GM1 MET.TR.205(b) SIGMET message** The SIGMET message applies to the whole	Transposed with no change.	**GM1 MET.TR.205(b) SIGMET message** The SIGMET message applies to the whole airspace within the lateral limits of the	MET.TR

ICAO Annex 3, Part II	Justification/reason for changes	Proposed NPA 2014-07 (A) text	Relevant Part
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 are given in the text of the message.		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 are given in the text of the message.	
~~**4.2 Criteria related to phenomena included in SIGMET and AIRMET messages and special air-reports (uplink)**~~	---	---	---
~~4.2.1 Recommendation.~~ **GM1 MET.TR.205(c) SIGMET & MET.TR.210(c) AIRMET message** **(a)** An area of thunderstorms and cumulonimbus clouds ~~should be~~is considered:	This Recommendation is considered to be more guidance material than a means of compliance in itself. The wording has been changed to make it GM.	**GM1 MET.TR.205(c) SIGMET & MET.TR.210(c) AIRMET message** **(a)** An area of thunderstorms and cumulonimbus clouds is considered:	
(~~a~~1) obscured (OBSC) if it is obscured by haze or smoke or cannot be readily seen due to darkness;	Transposed with no change.	**(1)** obscured (OBSC) if it is obscured by haze or smoke or cannot be readily seen due to darkness;	MET.TR
(~~b~~2) embedded (EMBD) if it is embedded within cloud layers and cannot be readily recognized;	Transposed with no change.	**(2)** embedded (EMBD) if it is embedded within cloud layers and cannot be readily recognized;	MET.TR
(~~c~~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 per cent of the area concerned (at a fixed time or during the period of validity); and	Transposed with no change.	**(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 per cent of the area concerned (at a fixed	MET.TR

ICAO Annex 3, Part II	Justification/reason for changes	Proposed NPA 2014-07 (A) text	Relevant Part
		time or during the period of validity); and	
(d4) 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 per cent of the area concerned (at a fixed time or during the period of validity).	Transposed with no change.	**(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 per cent of the area concerned (at a fixed time or during the period of validity).	MET.TR
4.2.2 Recommendation.— **(b)** An area of thunderstorms should is be considered frequent (FRQ) if within that area there is little or no separation between adjacent thunderstorms with a maximum spatial coverage greater than 75 per cent of the area affected, or forecast to be affected, by the phenomenon (at a fixed time or during the period of validity).	This Recommendation is considered to be more guidance material than a means of compliance in itself and is therefore downgraded to guidance material. The wording has been changed to make it GM.	**(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 per cent of the area affected, or forecast to be affected, by the phenomenon (at a fixed time or during the period of validity).	MET.TR
4.2.3 Recommendation.— **(c)** Squall line (SQL) should indicates a thunderstorm along a line with little or no space between individual clouds.	This Recommendation is considered to be more guidance material than a means of compliance in itself and is therefore downgraded to guidance material. The wording has been changed to make it GM.	**(c)** Squall line (SQL) indicates a thunderstorm along a line with little or no space between individual clouds.	MET.TR
4.2.4 Recommendation.— **(d)** Hail (GR) should is be used as a further description of the thunderstorm, as necessary.	This Recommendation is considered to be more guidance material than a means of compliance in itself and	**(d)** Hail (GR) is used as a further description of the thunderstorm, as necessary.	MET.TR

ICAO Annex 3, Part II	Justification/reason for changes	Proposed NPA 2014-07 (A) text	Relevant Part
	is therefore downgraded to guidance material. The wording has been changed to make it GM.		
~~4.2.5 Recommendation.~~ **(e)** Severe and moderate turbulence (TURB) ~~should~~ refers only to: low-level turbulence associated with strong surface winds; rotor streaming; or turbulence whether in cloud or not in cloud (CAT). Turbulence is ~~should~~ not ~~be~~ used in connection with convective clouds.	This Recommendation is considered to be more guidance material than a means of compliance in itself and is therefore downgraded to guidance material. The wording has been changed to make it GM.	**(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 in cloud (CAT). Turbulence is not used in connection with convective clouds.	MET.TR
~~4.2.6~~ **(f)** Turbulence ~~shall be~~is considered:	This paragraph is considered to be more guidance material than a standard in itself. The wording has been changed to make it GM.	**(f)** Turbulence is considered:	MET.TR
(~~a~~1) severe whenever the peak value of the cube root of EDR exceeds 0.7; and	Transposed with no change.	**(1)** severe whenever the peak value of the cube root of EDR exceeds 0.7; and	MET.TR
(~~b~~2) moderate whenever the peak value of the cube root of EDR is above 0.4 and below or equal to 0.7.	Transposed with no change.	**(2)** moderate whenever the peak value of the cube root of EDR is above 0.4 and below or equal to 0.7.	MET.TR
~~4.2.7 Recommendation.~~ **(g)** Severe and moderate icing (ICE) ~~should~~ refers to icing in other than convective clouds. Freezing rain (FZRA) should refer to severe icing conditions caused by freezing rain.	This Recommendation is considered to be more guidance material than a means of compliance in itself. The wording has been changed to make it GM.	**(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.	MET.TR

ICAO Annex 3, Part II	Justification/reason for changes	Proposed NPA 2014-07 (A) text	Relevant Part
~~4.2.8 Recommendation.~~ **(h)** A mountain wave (MTW)~~ should be~~is considered:	This Recommendation is considered to be more guidance material than a means of compliance in itself. The wording has been changed to make it GM.	**(h)** A mountain wave (MTW) is considered:	MET.TR
(~~a~~1) severe whenever an accompanying downdraft of 3.0 m/s (600 ft/min) or more and/or severe turbulence is observed or forecast; and	Transposed with no change.	**(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	MET.TR
(2~~b~~) moderate whenever an accompanying downdraft of 1.75–3.0 m/s (350–600 ft/min) and/or moderate turbulence is observed or forecast.	Transposed with no change.	**(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.	MET.TR
~~4.2.9 Recommendation.~~ **AMC1 MET.TR.205(c) SIGMET and MET.TR.210(c) AIRMET message** Sandstorm/duststorm should be considered:	Transposed with no change.	**AMC1 MET.TR.205(c) SIGMET and MET.TR.210(c) AIRMET message** Sandstorm/duststorm should be considered:	MET.TR
(a) heavy whenever the visibility is below 200 m and the sky is obscured; and	Transposed with no change.	**(a)** heavy whenever the visibility is below 200 m and the sky is obscured; and	MET.TR
(b) moderate whenever the visibility is:	Transposed with no change.	**(b)** moderate whenever the visibility is:	MET.TR
(1) below 200 m and the sky is not obscured; or	Transposed with no change.	**(1)** below 200 m and the sky is not obscured; or	MET.TR

ICAO Annex 3, Part II	Justification/reason for changes	Proposed NPA 2014-07 (A) text	Relevant Part
(2) between 200 m and 600 m.	Transposed with no change.	**(2)** between 200 m and 600 m.	MET.TR
~~**5. SPECIFICATIONS RELATED TO AERODROME WARNINGS**~~	---	---	---
~~**5.1 Format and dissemination of aerodrome warnings**~~	---	---	---
~~5.1.1~~ **MET.TR.235 Aerodrome warnings and wind-shear warnings and alerts** **(a)** The aerodrome warnings shall be issued in accordance with the template in Table ~~A6-2~~ 6 of Appendix 1. ~~where required by operators or aerodrome services, and shall be disseminated in accordance with local arrangements to those concerned.~~	The delete text is considered as redundant and not applicable in EU context.	**MET.TR.235 Aerodrome warnings and wind-shear warnings and alerts** **(a)** The aerodrome warnings shall be issued in accordance with the template in Table 6 of Appendix 1.	MET.TR
~~5.1.2~~ **MET.TR.235 Aerodrome warnings and wind-shear warnings and alerts** **(b)** The sequence number referred to in the template in Table ~~A6-2~~ 6 of Appendix 1 shall correspond with the number of aerodrome warnings issued for the aerodrome since 00.01 UTC on the day concerned.	The delete text is considered as redundant and not applicable in EU context.	**MET.TR.235 Aerodrome warnings and wind-shear warnings and alerts** **(b)** The sequence number referred to in the template in Table 6 of Appendix 1 shall correspond with the number of aerodrome warnings issued for the aerodrome since 00.01 UTC on the day concerned.	MET.TR
~~5.1.3 Recommendation. — In accordance with the template in Table A6-2, aerodrome warnings should relate to the occurrence or expected~~	This recommendation is not transposed as the list of phenomena is contained in table 7	---	---

ICAO Annex 3, Part II	Justification/reason for changes	Proposed NPA 2014-07 (A) text	Relevant Part
~~occurrence of one or more of the following phenomena:~~ ~~— tropical cyclone (to be included if the 10-minute mean surface wind speed at the aerodrome is expected to be 17 m/s(34 kt) or more)~~ ~~— thunderstorm~~ ~~— hail~~ ~~— snow (including the expected or observed snow accumulation)~~ ~~— freezing precipitation~~ ~~— hoar frost or rime~~ ~~— sandstorm~~ ~~— duststorm~~ ~~— rising sand or dust~~ ~~— strong surface wind and gusts~~ ~~— squall~~ ~~— frost~~ ~~— volcanic ash~~ ~~— tsunami~~ ~~— volcanic ash deposition~~ ~~— toxic chemicals~~	of Appendix 1 to this NPA. It is therefore redundant and it avoids duplication of rules.		

ICAO Annex 3, Part II	Justification/reason for changes	Proposed NPA 2014-07 (A) text	Relevant Part
~~— other phenomena as agreed locally.~~			
~~5.1.4 RECOMMENDATION. —~~ **AMC1 MET.TR.235(a) Aerodrome warnings and wind-shear warnings and alerts** **(a)** ~~The use of text additional to the abbreviations listed in the template in Table A6-2 should be kept to a minimum.~~ 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.	Deleted text is not necessary. The template already explains how to use these products.	**AMC1 MET.TR.235(a) Aerodrome warnings and wind-shear warnings and alerts** **(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.	MET.TR
~~**5.2 Quantitative criteria for aerodrome warnings**~~	---	---	---
~~Recommendation. — —~~ **(b)** When quantitative criteria are necessary for the issue of aerodrome warnings, ~~covering, for example, the expected maximum wind speed or the expected total snowfall,~~ the criteria should be established by agreement between the aerodrome meteorological office and the users of the warnings.	Transposed with no change. The deleted text gives an example which is not considered as necessary.	**(b)** When quantitative criteria are necessary for the issue of aerodrome warnings, the criteria should be established by agreement between the aerodrome meteorological office and the users of the warnings.	MET.TR
~~**6. SPECIFICATIONS RELATED TO WIND SHEAR WARNINGS**~~	---	---	---

ICAO Annex 3, Part II	Justification/reason for changes	Proposed NPA 2014-07 (A) text	Relevant Part
~~**6.1 Detection of wind shear**~~	---	---	---
~~Recommendation.— Evidence of the existence of wind shear should be derived from:~~	Not transposed as already contained in MET.OR.235(d)	---	---
~~a) ground-based, wind shear remote sensing equipment, for example, Doppler radar;~~	Not transposed as already contained in MET.OR.235(d)	---	---
~~b)~~ **GM2 MET.OR.235(d) Aerodrome warnings and wind-shear warnings and alerts** Examples of wind shear detection equipment are ground-based, wind shear detection equipment: ~~, for example,~~ a system of surface wind and/or pressure sensors located in an array monitoring a specific runway or runways and associated approach and departure paths.~~;~~	This paragraph is considered to be explanatory material.	**GM2 MET.OR.235(d) Aerodrome warnings and wind-shear warnings and alerts** Examples of wind shear detection equipment are ground-based, wind shear detection equipment: a system of surface wind and/or pressure sensors located in an array monitoring a specific runway or runways and associated approach and departure paths.	MET.OR
~~c) aircraft observations during the climb-out or approach phases of flight to be made in accordance with Chapter 5; or~~	Not transposed as they do not constitute means of compliance or requirements as such.	---	---
~~d) other meteorological information, for example, from appropriate sensors located on existing masts or towers in the vicinity of the aerodrome or nearby areas of high ground.~~	Not transposed as they do not constitute means of compliance or requirements as such.	---	---
~~Note.—~~ **GM1 MET.TR.235(f) Aerodrome**	Transposed with no change.	**GM1 MET.TR.235(f) Aerodrome**	MET.TR

ICAO Annex 3, Part II	Justification/reason for changes	Proposed NPA 2014-07 (A) text	Relevant Part
warnings and wind-shear warnings and alerts Wind shear conditions are normally associated with the following phenomena:		**warnings and wind-shear warnings and alerts** Wind shear conditions are normally associated with the following phenomena:	
(a) — thunderstorms, microbursts, funnel cloud (tornado or waterspout), and gust fronts	Transposed with no change.	**(a)** thunderstorms, microbursts, funnel cloud (tornado or waterspout), and gust fronts	MET.TR
(b) — frontal surfaces	Transposed with no change.	**(b)** frontal surfaces	MET.TR
(c) — strong surface winds coupled with local topography	Transposed with no change.	**(c)** strong surface winds coupled with local topography	MET.TR
(d) — sea breeze fronts	Transposed with no change.	**(d)** sea breeze fronts	MET.TR
(e) — mountain waves (including low-level rotors in the terminal area)	Transposed with no change.	**(e)** mountain waves (including low-level rotors in the terminal area)	MET.TR
(f) — low-level temperature inversions.	Transposed with no change.	**(f)** low-level temperature inversions.	MET.TR
~~**6.2 Format and dissemination of wind shear warnings and alerts**~~	---	---	---
~~Note.~~ **AMC2 MET.TR.235(a) Aerodrome warnings and wind-shear warnings and alerts** Information on wind shear ~~is also to~~ should be included as supplementary information in local	This Note is transposed into AMC, in order to make it more binding to issue wind shear in the mentioned products. No SPECI in Europe.	**AMC2 MET.TR.235(a) Aerodrome warnings and wind-shear warnings and alerts** Information on wind shear should be included as supplementary information in	MET.TR

ICAO Annex 3, Part II	Justification/reason for changes	Proposed NPA 2014-07 (A) text	Relevant Part
routine and special reports and METAR. ~~and SPECI in accordance with the templates in Appendix 3, Tables A3-1 and A3-2.~~		local routine and special reports and METAR.	
~~6.2.1~~ **MET.TR.235 Aerodrome warnings and wind-shear warnings and alerts** **(c)** ~~The~~ ~~w~~Wind shear warnings shall be issued in accordance with the template in Table 7 of Appendix 1. ~~A6-3 and shall be disseminated in accordance with local arrangements to those concerned.~~	The delete text is considered as redundant and not applicable in EU context.	**MET.TR.235 Aerodrome warnings and wind-shear warnings and alerts** **(c)** The wind shear warnings shall be issued in accordance with the template in Table 7 of Appendix 1.	MET.TR
~~6.2.2~~ **(d)** The sequence number referred to in the template in Table 7 of Appendix 1 ~~A6-3~~ shall correspond with the number of wind shear warnings issued for the aerodrome since 00.01 UTC on the day concerned.	Transposed with no change.	**(d)** The sequence number referred to in the template in Table 7 of Appendix 1 shall correspond with the number of wind shear warnings issued for the aerodrome since 00.01 UTC on the day concerned.	MET.TR
~~6.2.3 Recommendation.~~ **AMC1 MET.TR.235(c) Aerodrome warnings and wind-shear warnings and alerts** **(a)** The use of text additional to the abbreviations listed in the template in Table 7 of Appendix 1~~A6-3~~ should be kept to a minimum. 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.~~	Transposed with no change.	**AMC1 MET.TR.235(c) Aerodrome warnings and wind-shear warnings and alerts** **(a)** The use of text additional to the abbreviations listed in the template in Table 7 of Appendix 1 should be kept to a minimum. The additional text should be prepared in abbreviated plain language using approved ICAO abbreviations and numerical values.	MET.TR

ICAO Annex 3, Part II	Justification/reason for changes	Proposed NPA 2014-07 (A) text	Relevant Part
~~6.2.4 Recommendation.—~~ **(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 local arrangements to those concerned.	Transposed with no change.	**(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 local arrangements to those concerned.	MET.TR
~~Note 1.—~~ **GM1 MET.TR.235(c) Aerodrome warnings and wind-shear warnings and alerts** 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.	Transposed with no change.	**GM1 MET.TR.235(c) Aerodrome warnings and wind-shear warnings and alerts** 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.	MET.TR
~~Note 2.—~~ **GM2 MET.TR.235(c) Aerodrome warnings and wind-shear warnings and alerts** Specifications for reporting the intensity of wind shear are still undergoing development. It is recognized, 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.	Transposed with no change.	**GM2 MET.TR.235(c) Aerodrome warnings and wind-shear warnings and alerts** Specifications for reporting the intensity of wind shear are still undergoing development. It is recognized, 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	MET.TR

ICAO Annex 3, Part II	Justification/reason for changes	Proposed NPA 2014-07 (A) text	Relevant Part
		encountered.	
~~6.2.5 The wind shear alerts shall be disseminated from automated, ground-based, wind shear remote sensing or detection equipment in accordance with local arrangements to those concerned.~~	Not transposed as this is considered as a mean by which and not an objective as such.	---	---
~~6.2.6 Recommendation. — Where microbursts are observed, reported by pilots or detected by ground-based, wind shear detection or remote-sensing equipment, the wind shear warning and wind shear alert should include a specific reference to microburst.~~	Not transposed as no reference is made in the IR to the dissemination of automated, ground-based, wind-shear remote sensing or detection equipment.	---	---
~~6.2.7~~ **MET.TR.235 Aerodrome warnings and wind-shear warnings and alerts** **(f)** ~~Where information from ground-based, wind shear detection or remote-sensing equipment is used to prepare a w~~Wind shear alert~~, the alert~~ shall, if practicable, relate to specific sections of the runway and distances along the approach path or take-off path as agreed between the aerodrome meteorological office~~authority~~, the appropriate ATS units~~authority~~ and the operators concerned.	Transposed with no change. Editorial changes only.	**MET.TR.235 Aerodrome warnings and wind-shear warnings and alerts** **(g)** Wind shear alert shall, if practicable, relate to specific sections of the runway and distances along the approach path or take-off path as agreed between the aerodrome meteorological office, the appropriate ATS units and the operators concerned.	MET.TR

INFORMATION.

The **'Table A6-1. Template for SIGMET and AIRMET messages and special air-reports (uplink)'** is transposed with no change.

For brevity reasons, it is not reproduced in this document and can be found in **Table 1 of Appendix 1** to this NPA.

INFORMATION.

The **'Table A6-2. Template for aerodrome warnings'** is transposed with no change.

For brevity reasons, it is not reproduced in this document and can be found in **Table 6 of Appendix 1** to this NPA.

INFORMATION.

The **'Table A6-3. Template for wind shear warnings'** is transposed with no change.

For brevity reasons, it is not reproduced in this document and can be found in **Table 7 of Appendix 1** to this NPA.

INFORMATION.

The **'Table A6-4. 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'** is transposed with no change.

For brevity reasons, it is not reproduced in this document and can be found in **Table 1a of Appendix 1** to this NPA.

~~**Example A6-1**~~ **GM1 MET.TR.205(a) SIGMET and MET.TR.210(a) AIRMET SIGMET and AIRMET message 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

~~Example A6-2~~ GM2 MET.TR.205(a) SIGMET. 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 0001 UTC; the message is valid from 1600 UTC to 2200 UTC on the 25th of the month; tropical cyclone Gloria was observed at 1600 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 northwestwards at 10 knots and not to undergo any changes in intensity; the forecast position of the centre of the tropical cyclone at 2200 UTC is expected to be at 27 degrees 40 minutes north and 73 degrees 45 minutes west.

** Fictitious location*

~~Example A6-3~~ GM3 MET.TR.205(a) SIGMET. 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 65KMH 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 0001 UTC; the message is valid from 1100 UTC to 1700 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 1100 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 450the volcanic ash cloud is expected to move southeastwards at 65 kilometres per hour; at 1700 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 location*

~~**Example A6-4**~~ **GM4 MET.TR.205(a) SIGMET. 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 0001 UTC; the message is valid from 1200 UTC to 1600 UTC on the 20th of the month; radioactive cloud was observed at 1155 UTC within an area bounded by 50 degrees 0 minutes south 140 degrees 0 minutes west to 50 degrees 0 minutes south 138 degrees 0 minutes west to 52 degrees 0 minutes south 138 degrees 0 minutes west to 52 degrees 0 minutes south 140 degrees 0 minutes west to 50 degrees 0 minutes south 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 location

~~**Example A6-5**~~ **GM5 MET.TR.205(a) SIGMET. 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 40KMH 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 1215 UTC to 1600 UTC on the 22nd of the month; severe turbulence was observed at 1210 UTC 20 degrees 20 minutes north and 70 degrees 5 minutes

west at flight level 250; the turbulence is expected to move eastwards at 40 kilometres per hour and to weaken in intensity; forecast position at 1600 UTC south of 20 degrees 20 minutes north and east of 69 degrees 50 minutes west.

** Fictitious location*

~~Example A6-6~~ GM6 MET.TR.205(a) SIGMET. 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 0001 UTC; the message is valid from 1215 UTC to 1600 UTC on the 22nd of the month; moderate mountain wave was observed at 1205 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 location*

ICAO Annex 3, Part II	Justification/reason for changes	Proposed NPA 2014-07 (A) text	Relevant Part
~~**APPENDIX 7. TECHNICAL SPECIFICATIONS RELATED TO AERONAUTICAL CLIMATOLOGICAL INFORMATION**~~ ~~(See Chapter 8 of this Annex.)~~	---	---	---
~~**1. PROCESSING OF AERONAUTICAL CLIMATOLOGICAL INFORMATION**~~	---	---	---
~~Recommendation.~~ **AMC2 MET.OR.255 Observation of meteorological elements** Meteorological observations for regular and alternate aerodromes should be collected, processed and stored in a form suitable for the preparation of aerodrome climatological information.	Transposed with no change.	**AMC2 MET.OR.255 Observation of meteorological elements** Meteorological observations for regular and alternate aerodromes should be collected, processed and stored in a form suitable for the preparation of aerodrome climatological information.	MET.OR
~~**2. EXCHANGE OF AERONAUTICAL CLIMATOLOGICAL INFORMATION**~~	---	---	---
~~Aeronautical climatological information should be exchanged on request between meteorological authorities.~~ ~~Operators and other aeronautical users desiring such information should normally apply to the meteorological authority responsible for its preparation.~~	This paragraph is not transposed as it reflects responsibilities to be ensured by operators and the users and not on meteorological providers	---	---

ICAO Annex 3, Part II	Justification/reason for changes	Proposed NPA 2014-07 (A) text	Relevant Part
~~**3. CONTENT OF AERONAUTICAL CLIMATOLOGICAL INFORMATION**~~	---	---	---
~~**3.1 Aerodrome climatological tables**~~	---	---	---
~~3.1.1 Recommendation.~~ **AMC4 MET.TR.220(i) Forecast and other meteorological information** An aerodrome climatological table should indicate: ~~give as applicable~~	Transposed with no change. Editorial change for better wording.	**AMC4 MET.TR.220(i) Forecast and other meteorological information** An aerodrome climatological table should indicate:	MET.TR
(a) mean values and variations therefrom, including maximum and minimum values, of meteorological ~~elements (for example, of air temperature)~~; and/or	Transposed with no change. Examples are given in guidance material	**(a)** mean values and variations therefrom, including maximum and minimum values, of meteorological elements; and/or	MET.TR
(b) the frequency of occurrence of present weather phenomena affecting flight operations at the aerodrome ~~(for example, of sandstorms)~~; and/or	Transposed with no change. Examples are given in guidance material	**(b)** the frequency of occurrence of present weather phenomena affecting flight operations at the aerodrome; and/or	MET.TR
(c) the frequency of occurrence of specified values of one, or of a combination of two or more, elements ~~(for example, of a combination of low visibility and low cloud)~~.	Transposed with no change. Examples are given in guidance material	**(c)** the frequency of occurrence of specified values of one, or of a combination of two or more, elements.	MET.TR
~~3.1.2 Recommendation.~~ **AMC5 MET.TR.220(i) Forecast and other meteorological information** Aerodrome climatological tables	Transposed with no change.	**AMC5 MET.TR.220(i) Forecast and other meteorological information** Aerodrome climatological tables should	MET.TR

ICAO Annex 3, Part II	Justification/reason for changes	Proposed NPA 2014-07 (A) text	Relevant Part
should include information required for the preparation of aerodrome climatological summaries. ~~in accordance with 3.2~~		include information required for the preparation of aerodrome climatological summaries.	
~~3.2 Aerodrome climatological summaries~~	---	---	---
~~Recommendation.~~ — **AMC6 MET.TR.220(i) Forecast and other meteorological information** Aerodrome climatological summaries should cover:	Transposed with no change.	**AMC6 MET.TR.220(i) Forecast and other meteorological information** Aerodrome climatological summaries should cover:	MET.TR
(a) frequencies of the occurrence of runway visual range/visibility and/or height of the base of the lowest cloud layer of BKN or OVC extent below specified values at specified times;	Transposed with no change.	**(a)** frequencies of the occurrence of runway visual range/visibility and/or height of the base of the lowest cloud layer of BKN or OVC extent below specified values at specified times;	MET.TR
(b) frequencies of visibility below specified values at specified times;	Transposed with no change.	**(b)** frequencies of visibility below specified values at specified times;	MET.TR
(c) frequencies of the height of the base of the lowest cloud layer of BKN or OVC extent below specified values at specified times;	Transposed with no change.	**(c)** frequencies of the height of the base of the lowest cloud layer of BKN or OVC extent below specified values at specified times;	MET.TR
(d) frequencies of occurrence of concurrent wind direction and speed within specified ranges;	Transposed with no change.	**(d)** frequencies of occurrence of concurrent wind direction and speed within specified ranges;	MET.TR

ICAO Annex 3, Part II	Justification/reason for changes	Proposed NPA 2014-07 (A) text	Relevant Part
(e) frequencies of surface temperature in specified ranges of 5°C at specified times; and	Transposed with no change.	**(e)** frequencies of surface temperature in specified ranges of 5°C at specified times; and	MET.TR
(f) mean values and variations therefrom, including maximum and minimum values of meteorological elements required for operational planning purposes, including take-off performance calculations.	Transposed with no change.	**(f)** mean values and variations therefrom, including maximum and minimum values of meteorological elements required for operational planning purposes, including take-off performance calculations.	MET.TR
~~Note.—~~**GM2 MET.TR.220(i) Forecast and other meteorological information** Models of climatological summaries related to (a) to (e) in AMC6 MET.TR.215(i) are given in WMO Publication No. 49, Technical Regulations, Volume II, C.3.2.	Transposed with no change. Reference change only.	**GM2 MET.TR.220(i) Forecast and other meteorological information** Models of climatological summaries related to (a) to (e) in AMC6 MET.TR.215(i) are given in WMO Publication No. 49, Technical Regulations, Volume II, C.3.2.	MET.TR

ICAO Annex 3, Part II	Justification/reason for changes	Proposed NPA 2014-07 (A) text	Relevant Part
~~**APPENDIX 8. TECHNICAL SPECIFICATIONS RELATED TO SERVICE FOR OPERATORS AND FLIGHT CREW MEMBERS**~~ ~~*(See Chapter 9 of this Annex.)*~~			

ICAO Annex 3, Part II	Justification/reason for changes	Proposed NPA 2014-07 (A) text	Relevant Part
~~1.1~~ **~~AMC1 MET.TR.220 Forecasts and other meteorological information~~** Meteorological information provided to ~~shall be supplied to~~ operators and flight crew members shall be provided by means of one or more of the following: ~~by one or more of the following, as agreed between the meteorological authority and operator concerned, and with the order shown below not implying priorities:~~ (a) written or printed material, including specified charts and forms; b) data in digital form; c) briefing; d) consultation; e) display; or f) ~~in lieu of (a1) to (e), by means of~~ 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~~, in accordance with 5.1.~~.	Transposed with no change. The deleted text is not considered as relevant in this context. Editorial changes only.	**AMC1 MET.TR.220(a) Forecasts and other meteorological information** Meteorological information provided to operators and flight crew members shall 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.	
~~1.2~~ **~~MET.OR.220(k) Forecasts and other meteorological information~~** ~~The~~An aerodrome meteorological ~~authority~~office ~~in consultation with the operator,~~ shall determine, in consultation with the operator~~:~~ ~~a)~~ the type and format of meteorological information to be ~~supplied~~provided; and the ~~b)~~ methods and means of ~~supplying~~ providing		**MET.OR.220(k) Forecasts and other meteorological information** An aerodrome meteorological office shall determine, in consultation with the operator the type and format of meteorological information to be provided; and the methods and means of providing that information.	MET.OR

ICAO Annex 3, Part II	Justification/reason for changes	Proposed NPA 2014-07 (A) text	Relevant Part
that information.			
~~1.3 **Recommendation.**~~ **AMC1 MET.OR.220(k) Forecasts and other meteorological information** On request by the operator, the meteorological information supplied for flight planning should include data for the determination of the lowest usable flight level.	Transposed with no change.	**AMC1 MET.OR.220(k) Forecasts and other meteorological information** On request by the operator, the meteorological information supplied for flight planning should include data for the determination of the lowest usable flight level.	MET.OR
~~**2.1 Format of upper-air gridded information**~~ ~~Upper-air gridded information supplied by WAFCs for pre-flight and in-flight re-planning shall be in the GRIB code form.~~	Not transposed as it is already covered by Appendix 2	---	---
~~*Note.— The GRIB code form is contained in WMO Publication No. 306,* Manual on Codes, *Volume I.2, Part B — Binary Codes*~~	This Note is not transposed as it is already transposed elsewhere in the rules.	---	---
~~**2.2 Format of information on significant weather**~~ ~~Information on significant weather supplied by WAFCs for pre-flight and in-flight re-planning shall be in the BUFR code form.~~ ~~*Note.— The BUFR code form is contained in WMO Publication No. 306,* Manual on Codes, *Volume I.2, Part B — Binary Codes.*~~	Not transposed as it is already covered by Appendix 2.	---	---
AMC2 MET.TR.220(a) Forecasts and other meteorological information ~~**2.3**~~ **Specific needs of helicopter operations** ~~**Recommendation.**~~ **(a)** Meteorological information for pre-flight planning and in-flight re-planning by operators of helicopters flying to	Transposed with no change.	**AMC2 MET.TR.220(a) Forecasts and other meteorological information** SPECIFIC NEEDS OF HELICOPTER OPERATIONS **(a)** Meteorological information for pre-flight planning and in-flight re-planning by	MET.TR

ICAO Annex 3, Part II	Justification/reason for changes	Proposed NPA 2014-07 (A) text	Relevant Part
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.~~, as determined by regional air navigation agreement.~~		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.	
~~**SPECIFICATIONS RELATED TO BRIEFING AND CONSULTATION**~~ ~~**3.1 Information required to be displayed**~~ ~~**Recommendation.** — *The material displayed should be readily accessible to the flight crew members or other flight*~~ *operations personnel concerned.*	Not transposed as, today, most method of access to meteorological information is via automated briefing systems which permit easy access to relevant information.	---	---
~~**4. SPECIFICATIONS RELATED TO FLIGHT DOCUMENTATION**~~ ~~**4.1 Presentation of information**~~ ~~4.1.1~~ **AMC1 MET.TR.220(e)(1) & (2) Forecasts and other meteorological information** ~~T~~When the flight documentation related to forecasts of upper wind and upper-air temperature and SIGWX phenomena ~~shall be~~is presented in the form of charts it should be in accordance with the model charts in Appendix 1 to ICAO Annex 3. ~~For low-level flights, alternatively, GAMET area forecasts shall be~~	Re-worded for sake of clarity. GAMET issue is still pending.	**AMC1 MET.TR.220(e)(1) & (2) Forecasts and other meteorological information** 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 model charts in Appendix 1 to ICAO Annex 3.	MET.TR

ICAO Annex 3, Part II	Justification/reason for changes	Proposed NPA 2014-07 (A) text	Relevant Part
~~used.~~			
~~*Note. — Models of charts and forms for use in the preparation of flight documentation are given in Appendix 1. These models and methods for their completion are developed by the World Meteorological Organization on the basis of relevant operational requirements stated by the International Civil Aviation Organization.*~~	This Note is not transposed. The first sentence is included in the paragraph above. The second sentence is considered not to bring any added value to the rule.	---	---
~~4.1.2 Recommendation. —~~ **GM1 MET.TR.220(g) Forecasts and other meteorological information** **(a)** The flight documentation related to concatenated route-specific upper wind and upper-air temperature forecasts should be provided when agreed between the meteorological authority and operator concerned.	Transposed with no change.	**GM1 MET.TR.220(g) Forecasts and other meteorological information** **(a)** The flight documentation related to concatenated route-specific upper wind and upper-air temperature forecasts should be provided when agreed between the meteorological authority and operator concerned.	MET.TR
~~Note. —~~ **(b)** Guidance on the design, formulation and use of concatenated charts is given in the Manual of Aeronautical Meteorological Practice (Doc 8896).	Transposed with no change.	**(b)** Guidance on the design, formulation and use of concatenated charts is given in the Manual of Aeronautical Meteorological Practice (Doc 8896).	MET.TR
~~4.1.3 METAR and SPECI (including trend forecasts as issued in accordance with regional air navigation agreement), TAF, GAMET, SIGMET, AIRMET and volcanic ash and tropical cyclone advisory information shall be presented in accordance with the templates in Appendices 1, 2, 3, 5 and 6, respectively. Such meteorological information received from other meteorological offices shall be included in flight documentation without change.~~	Text not transposed as it is considered to be redundant because the templates already identifiy the meteorological information included in this paragraph.	---	---

ICAO Annex 3, Part II	Justification/reason for changes	Proposed NPA 2014-07 (A) text	Relevant Part
~~*Note.* — Examples of the form of presentation of METAR/SPECI and TAF are given in Appendix 1.~~	Not transposed as this Note is linked to 4.1.3 above.	---	**---**
~~4.1.3 **Recommendation.** —~~ **AMC2 MET.TR.220(e)(1) & (2) Forecasts and other meteorological information** The location indicators and the abbreviations used should be explained in the flight documentation.	Transposed with no change.	**AMC2 MET.TR.220(e)(1) & (2) Forecasts and other meteorological information** The location indicators and the abbreviations used should be explained in the flight documentation.	
~~4.1.4 **Recommendation.** —~~ ~~The forms and the legend of charts included in flight documentation should be printed in English, French, Russian or Spanish. Where appropriate, approved abbreviations should be used. The units employed for each element should be indicated; they should be in accordance with Annex 5.~~	Not transposed. This provision will be considered at a later stage.	---	MET.TR
AMC1 MET.TR.220(f) Forecasts and other meteorological information ~~**4.2 Charts in flight documentation**~~ ~~4.2.1 Characteristics of charts~~ ~~4.2.1.1 **Recommendation.** —~~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 size A3) and the smallest size should be about 21 × 30 cm (standard size A4). The choice between these sizes should depend on the route lengths and the amount of detail that needs to be given in the	Transposed with no change.	**AMC1 MET.TR.220(f) Forecasts and other meteorological information** 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 size A3) and the smallest size should be about 21 × 30 cm (standard size A4). 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	MET.TR

ICAO Annex 3, Part II	Justification/reason for changes	Proposed NPA 2014-07 (A) text	Relevant Part
charts as agreed between meteorological authorities and users; **(b)** major geographical features, such as coastlines, major rivers and lakes should be depicted in a way that makes them easily recognizable; **(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 relevant regional 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 (i.e. not only at the edges); 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.		meteorological authorities and users; **(b)** major geographical features, such as coastlines, major rivers and lakes should be depicted in a way that makes them easily recognizable; **(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 relevant regional 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 (i.e. not only at the edges); 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	

ICAO Annex 3, Part II	Justification/reason for changes	Proposed NPA 2014-07 (A) text	Relevant Part
		necessary, the types of units used in an unambiguous way.	
~~4.2.1.2~~ **MET.TR.220(d) Forecasts and other meteorological information** Meteorological information included in flight documentation shall be represented as follows: **(1~~a~~)** winds on charts shall be depicted by arrows with feathers and shaded pennants on a sufficiently dense grid; **(~~b~~2)** temperatures shall be depicted by figures on a sufficiently dense grid; **(~~c~~3)** wind and temperature data selected from the data sets received from a world area forecast centre shall be depicted in a sufficiently dense latitude/longitude grid; and **(~~d~~4)** wind arrows shall take precedence over temperatures and either shall take precedence over chart background.	Transposed with no change.	**MET.TR.220(d) Forecasts and other meteorological information** Meteorological information included in flight documentation shall be represented as follows: **(1)** winds on charts shall be depicted by arrows with feathers and shaded pennants on a sufficiently dense grid; **(2)** temperatures shall be depicted by figures on a sufficiently dense grid; **(3)** wind and temperature data selected from the data sets received from a world area forecast centre shall be depicted in a sufficiently dense latitude/longitude grid; and **(4)** wind arrows shall take precedence over temperatures and either shall take precedence over chart background.	MET.TR
~~4.2.1.3 Recommendation.~~ **GM1 MET.TR.220(f) Forecasts and other meteorological information** For short-haul flights, charts should be prepared covering limited areas at a scale of 1:15 × 106 as required	This recommendation is downgraded to guidance material as it is considered more appropriate in this case.	**GM1 MET.TR.220(f) Forecasts and other meteorological information** For short-haul flights, charts should be prepared covering limited areas at a scale of 1:15 × 106 as required	MET.TR
~~4.2.2~~ **AMC2 MET.TR.220(f)Forecasts and other meteorological information** ~~Set of charts to be provided~~ ~~4.2.2.1~~ **(a)** The minimum number of charts for	This paragraph is considered more appropriate as being an AMC in order to give some flexibility in the content of the	**AMC2 MET.TR.220(f) Forecasts and other meteorological information** **(a)** The minimum number of charts for flights between flight level 250 and flight	MET.TR

ICAO Annex 3, Part II	Justification/reason for changes	Proposed NPA 2014-07 (A) text	Relevant Part
flights between flight level 250 and flight level 630 ~~shall~~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 ~~shall~~should be as agreed between meteorological ~~authorities~~ providers and users concerned.	charts for certain types of flights.	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 meteorological providers and users concerned.	
~~4.2.2.2 Charts to be provided shall be generated from the digital forecasts provided by the WAFCs whenever these forecasts cover the intended flight path in respect of time, altitude and geographical extent, unless otherwise agreed between the meteorological authority and the operator concerned.~~	This paragraph is not transposed as it is already covered in AMC1 MET.OR.220(a)	---	**---**
~~4.2.3~~ **MET.TR.220(d)** ~~Height indications~~ (5) ~~In flight documentation,~~ height indications~~-~~ to en-route meteorological conditions shall be expressed~~given as follows:~~ and [see below] **AMC1 MET.TR.220(d)(5) Forecasts and other meteorological information – General** ~~a)~~ all references to en-route meteorological conditions, such as height indications of upper winds, turbulence or bases and tops of clouds, ~~shall preferably~~ should be expressed in flight levels; **GM1 MET.TR.220(d)(5) Forecasts and other meteorological information – General**	This paragraph is splitted between IR, AMC and GM for purpose of clarity of the rules concerning height indication.	In flight documentation, 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. **AMC1 MET.TR.220(d)(5) Forecasts and other meteorological information – General** 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	MET.TR

ICAO Annex 3, Part II	Justification/reason for changes	Proposed NPA 2014-07 (A) text	Relevant Part
Height indications ~~they~~ may also be expressed in pressure, altitude or, for low-level flights, height above ground level.~~; and~~ ~~b)~~ [cont'd]... all references to aerodrome meteorological conditions~~, such as height indications of the bases of clouds,~~ shall be expressed in height above the aerodrome elevation.		levels; **GM1 MET.TR.220(d)(5) Forecasts and other meteorological information – General** Height indications may also be expressed in pressure, altitude or, for low-level flights, height above ground level.	
~~**4.3 Specifications related to low-level flights**~~ ~~4.3.1 In chart form~~ ~~**Recommendation.**~~ **AMC1 MET.TR.220(e) Forecasts and other meteorological information – General** **(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: **(~~a~~1)** information from relevant SIGMET and AIRMET messages; **(~~b~~2)** upper wind and upper-air temperature charts as given in ~~Appendix 5, 4.3.1~~ ; and **(~~c~~3)** significant weather charts as given in ~~Appendix 5, 4.3.2.~~	Transposed with no change.	**AMC1 MET.TR.220(e) Forecasts and other meteorological information – General** **(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.	MET.TR
~~**4.3.2 In abbreviated plain language**~~ ~~**Recommendation.**~~ (b) Where the forecasts	Point b) referring to GAMET is not transposed as the Agency is	**(b)** Where the forecasts are not supplied in chart form, flight documentation for low-	MET.TR

ICAO Annex 3, Part II	Justification/reason for changes	Proposed NPA 2014-07 (A) text	Relevant Part
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 (up to flight level 150 in mountainous areas or higher, where necessary), should contain the following information as appropriate to the flight: ~~a)~~ SIGMET and AIRMET information.~~; and~~ ~~b) GAMET area forecasts.~~	waiting for the overall outcome of the European MET community approach on GAMET.	level flights ,including those in accordance with the visual flight rules, operating up to flight level 100 (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.	
~~*Note.— An example of the GAMET area forecast is given in Appendix 5.*~~	This Note is not transposed as it concerns GAMET, which is still pending.		MET.TR
~~**5. SPECIFICATIONS RELATED TO AUTOMATED PRE-FLIGHT INFORMATION SYSTEMS FOR BRIEFING, CONSULTATION, FLIGHT PLANNING AND FLIGHT DOCUMENTATION**~~ ~~**5.1 Access to the systems**~~	---	---	---
~~Automated pre-flight information systems providing self-briefing facilities shall provide for access by operators and flight crew members to consultation, as necessary, with an aerodrome meteorological office by telephone or other suitable telecommunications means.~~	Not transposed as it is already covered in 1.1. f)	**---**	---
~~**5.2 Detailed specifications of the systems**~~ ~~**Recommendation.—**~~**AMC1 MET.TR.220(a)(5)(vi) Forecasts and other meteorological information**	Transposed with no change.	**AMC1 MET.TR.220(a)(5)(vi) Forecasts and other meteorological information** Automated pre-flight information systems for the supply of meteorological	MET.TR

ICAO Annex 3, Part II	Justification/reason for changes	Proposed NPA 2014-07 (A) text	Relevant Part
Automated pre-flight information systems for the supply of meteorological information for selfbriefing, 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 the WMO, or based on a menu-driven user interface, or other appropriate mechanisms as agreed between the meteorological authority and operators concerned; and (d) provide for rapid response to a user request for information.		information for selfbriefing, 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 the WMO, or based on a menu-driven user interface, or other appropriate mechanisms as agreed between the meteorological authority and operators concerned; and **(d)** provide for rapid response to a user request for information.	
~~*Note.*~~ **GM1 MET.TR.220(a)(5)(vi) Forecasts and other meteorological information** **(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)**	Transposed with no change.	**GM1 MET.TR.220(a)(5)(vi) Forecasts and other meteorological information** **(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	MET.TR

ICAO Annex 3, Part II	Justification/reason for changes	Proposed NPA 2014-07 (A) text	Relevant Part
Aeronautical meteorological code data-type designators are given in the WMO Publication No. 386, Manual on the Global Telecommunication System.		(Doc 7910). **(b)** Aeronautical meteorological code data-type designators are given in the WMO Publication No. 386, Manual on the Global Telecommunication System.	
~~**6. SPECIFICATIONS RELATED TO INFORMATION FOR AIRCRAFT IN FLIGHT**~~ ~~**6.1 Supply of information requested by an aircraft in flight**~~ ~~**Recommendation.** — *If an aircraft in flight requests meteorological information, the aerodrome meteorological office or meteorological watch office which receives the request should arrange to supply the information with the assistance, if necessary, of another aerodrome meteorological office or meteorological watch office.*~~	Not transposed as it considered to be the way meteorological providers arrange themselves to provide the information and not a requirement in itself.	---	MET.TR
~~**6.2 Information for in-flight planning by the operator**~~ ~~**Recommendation.** — *Meteorological information for planning by the operator for aircraft in flight should be supplied*~~ ~~*during the period of the flight and should normally consist of any or all of the following:*~~ ~~*a) METAR and SPECI (including trend forecasts as issued in accordance with regional air navigation agreement);*~~ ~~*b) TAF and amended TAF;*~~ ~~*c) SIGMET and AIRMET information and special air-reports relevant to the flight, unless the latter*	Not transposed as it is already covered by MET.OR.110(b)	---	**---**

ICAO Annex 3, Part II	Justification/reason for changes	Proposed NPA 2014-07 (A) text	Relevant Part
~~*have been the subject of a SIGMET message;*~~ ~~*d) upper wind and upper-air temperature information;*~~ ~~*e) volcanic ash and tropical cyclone advisory information relevant to the flight; and*~~ ~~*f) other meteorological information in alphanumeric or graphical form as agreed between the meteorological authority and the operator concerned.*~~			
~~*Note.— Guidance on the display of graphical information in the cockpit is provided in the* Manual of Aeronautical Meteorological Practice *(Doc 8896).*~~	Not transposed as it considered as being obsolete	---	**---**

ICAO Annex 3, Part II	Justification/reason for changes	Proposed NPA 2014-07 (A) text	Relevant Part
~~**APPENDIX 9. TECHNICAL SPECIFICATIONS RELATED TO INFORMATION FOR AIR TRAFFIC SERVICES, SEARCH AND RESCUE SERVICES AND AERONAUTICAL INFORMATION SERVICES**~~ ~~(See Chapter 10 of this Annex.)~~	---	---	---
~~**1. INFORMATION TO BE PROVIDED FOR AIR TRAFFIC SERVICES UNITS**~~	---	---	---

ICAO Annex 3, Part II	Justification/reason for changes	Proposed NPA 2014-07 (A) text	Relevant Part
~~**1.1 List of information for the aerodrome control tower**~~	---	---	---
~~The following meteorological information shall be supplied, as necessary, to an aerodrome control tower by its associated aerodrome meteorological office:~~	This paragraph is not transposed as it is already covered by MET.OR provisions.	---	---
~~a) local routine and special reports, METAR and SPECI, TAF and trend forecasts and amendments thereto, for the aerodrome concerned;~~	This paragraph is not transposed as it is already covered by MET.OR provisions.	---	---
~~b) SIGMET and AIRMET information, wind shear warnings and alerts and aerodrome warnings;~~	This paragraph is not transposed as it is already covered by MET.OR provisions.	---	---
~~c) any additional meteorological information agreed upon locally, such as forecasts of surface wind for the determination of possible runway changes;~~	This paragraph is not transposed as it is already covered by MET.OR provisions. A new (i) in MET.OR.215 will contain the following: 'prepare and/or obtain forecasts and other relevant information necessary for the performance of the functions of ATS units'.	---	---
~~d) information received on volcanic ash cloud, for which a SIGMET has not already been issued, as agreed between the meteorological and ATS~~	This paragraph is not transposed as it is already covered by MET.OR provisions.	---	---

ICAO Annex 3, Part II	Justification/reason for changes	Proposed NPA 2014-07 (A) text	Relevant Part
~~authorities concerned; and~~			
~~e) information received on pre-eruption volcanic activity and/or a volcanic eruption as agreed between the meteorological and ATS authorities concerned.~~	This paragraph is not transposed as it is already covered by MET.OR provisions.	---	---
~~**1.2 List of information for the approach control unit**~~	---	---	---
~~The following meteorological information shall be supplied, as necessary, to an approach control unit by its associated aerodrome meteorological office:~~	This paragraph is not transposed as it is already covered by MET.OR provisions.	---	---
~~a) local routine and special reports, METAR and SPECI, TAF and trend forecasts and amendments thereto, for the aerodrome(s) with which the approach control unit is concerned;~~	This paragraph is not transposed as it is already covered by MET.OR provisions.	---	---
~~b) SIGMET and AIRMET information, wind shear warnings and alerts and appropriate special air-reports for the airspace with which the approach control unit is concerned and aerodrome warnings;~~	This paragraph is not transposed as it is already covered by MET.OR provisions.	---	---
~~c) any additional meteorological information agreed upon locally;~~	This paragraph is not transposed as it is already covered by MET.OR provisions.	---	---

ICAO Annex 3, Part II	Justification/reason for changes	Proposed NPA 2014-07 (A) text	Relevant Part
~~d) information received on volcanic ash cloud, for which a SIGMET has not already been issued, as agreed between the meteorological and ATS authorities concerned; and~~	This paragraph is not transposed as it is already covered by MET.OR provisions.	---	---
~~e) information received on pre-eruption volcanic activity and/or a volcanic eruption as agreed between the meteorological and ATS authorities concerned.~~	This paragraph is not transposed as it is already covered by MET.OR provisions.	---	---
~~**1.3 List of information for the area control centre and flight information centre**~~	---	---	---
~~The following meteorological information shall be edlied, as necessary, to an area control centre or a flight information centre by its associated meteorological watch office:~~	This paragraph is not transposed as it is already covered by MET.OR provisions.	---	---
~~a) METAR and SPECI, including current pressure data for aerodromes and other locations, TAF and trend forecasts and amendments thereto, covering the flight information region or the control area and, if required by the flight information centre or area control centre, covering aerodromes in neighbouring flight information regions, as determined by regional air navigation agreement;~~	This paragraph is not transposed as it is already covered by MET.OR provisions.	---	---
~~b) forecasts of upper winds, upper-air temperatures and significant en-route weather~~	This paragraph is not transposed as it is already covered by	---	---

ICAO Annex 3, Part II	Justification/reason for changes	Proposed NPA 2014-07 (A) text	Relevant Part
~~phenomena and amendments thereto, particularly those which are likely to make operation under visual flight rules impracticable, SIGMET and AIRMET information and appropriate special air reports for the flight information region or control area and, if determined by regional air navigation agreement and required by the flight information centre or area control centre, for neighbouring flight information regions;~~	MET.OR provisions.		
~~c) any other meteorological information required by the flight information centre or area control centre to meet requests from aircraft in flight; if the information requested is not available in the associated meteorological watch office, that office shall request the assistance of another meteorological office in supplying it;~~	This paragraph is not transposed as it is already covered by MET.OR.200(f)	---	---
~~d) information received on volcanic ash cloud, for which a SIGMET has not already been issued, as agreed between the meteorological and ATS authorities concerned;~~	This paragraph is not transposed as it is already covered by MET.OR provisions.	---	---
~~e) information received concerning the release of radioactive materials into the atmosphere, as agreed between the meteorological and ATS authorities concerned;~~	This paragraph is not transposed as it is already covered by MET.OR provisions.	---	---
~~f) tropical cyclone advisory information issued by~~	This paragraph is not transposed	---	---

ICAO Annex 3, Part II	Justification/reason for changes	Proposed NPA 2014-07 (A) text	Relevant Part
~~a TCAC in its area of responsibility;~~	as it is already covered by MET.OR provisions.		
~~g) volcanic ash advisory information issued by a VAAC in its area of responsibility; and~~	This paragraph is not transposed as it is already covered by MET.OR provisions.	---	---
~~h) information received on pre-eruption volcanic activity and/or a volcanic eruption as agreed between the meteorological and ATS authorities concerned.~~	This paragraph is not transposed as it is already covered by MET.OR provisions.	---	---
~~**1.4 Supply of information to aeronautical telecommunications stations**~~	---	---	---
~~Where necessary for flight information purposes, current meteorological reports and forecasts shall be supplied to designated aeronautical telecommunication stations. A copy of such information shall be forwarded, if required, to the flight information centre or the area control centre.~~	This paragraph is not transposed: aeronautical telecommunications stations are obsolete in the current EU ATM environment.		
~~**1.5 Format of information**~~	---	---	---
~~1.5.1 Recommendation.— Local routine and special reports, METAR and SPECI, TAF and trend forecasts, SIGMET and AIRMET information, upper wind and upper air temperature forecasts and amendments thereto should be supplied to~~	Not transposed because already covered by the template in the different appendices.	---	---

ICAO Annex 3, Part II	Justification/reason for changes	Proposed NPA 2014-07 (A) text	Relevant Part
~~air traffic services units in the form in which they are prepared, disseminated to other aerodrome meteorological offices or meteorological watch offices received from other aerodrome meteorological offices or meteorological watch offices, unless otherwise agreed locally.~~			
~~1.5.2 Recommendation.— When computer-processed upper air data for grid points are made available to air traffic services units in digital form for use by air traffic services computers, the contents, format and transmission arrangements should be as agreed between the meteorological authority and the appropriate ATS authority. The data should normally be supplied as soon as is practicable after the processing of the forecasts has been completed.~~	Not transposed as it is already covered by MET.OR.200(f) (and last sentence by MET.OR.110(b).	---	---
~~**2. INFORMATION TO BE PROVIDED FOR SEARCH AND RESCUE SERVICES UNITS**~~	---	---	---
~~**2.1 List of information**~~	---	---	---
MET.TR.220(b) Forecasts and other meteorological information Meteorological ~~I~~information ~~to be~~ provided~~supplied~~ to rescue coordination centres shall include the meteorological conditions that existed in the last known position of a missing aircraft and along	Amended to use a generic term to cover the elements listed below, which are being deleted as they are already covered in other provisions.	**MET.TR.220(b) Forecasts and other meteorological information** Information to be provided to rescue coordination centres shall include the meteorological conditions that existed in the last known position of a missing aircraft	MET.TR

ICAO Annex 3, Part II	Justification/reason for changes	Proposed NPA 2014-07 (A) text	Relevant Part
the intended route of that aircraft with particular reference to elements which are not being distributed routinely.		and along the intended route of that aircraft with particular reference to elements which are not being distributed routinely.	
~~a) significant en-route weather phenomena;~~	This element is not transposed as it is considered already covered by MET.OR.220(g) which sufficiently covers it throughout the MET.OR provisions.	---	---
~~b) cloud amount and type, particularly cumulonimbus; height indications of bases and tops;~~	This element is not transposed as it is already covered by MET.OR.220(g) which sufficiently covers it throughout the MET.OR provisions.	---	---
~~c) visibility and phenomena reducing visibility;~~	This element is not transposed as it is already covered by MET.OR.220(g) which sufficiently covers it throughout the MET.OR provisions.	---	---
~~d) surface wind and upper wind;~~	This element is not transposed as it is already covered by MET.OR.220(g) which sufficiently covers it throughout the MET.OR provisions.	---	---
~~e)~~ **GM1 MET.TR.220(b) Forecasts and other**	Transposed in GM with no	**GM1 MET.TR.220(b) Forecasts and**	MET.TR

ICAO Annex 3, Part II	Justification/reason for changes	Proposed NPA 2014-07 (A) text	Relevant Part
meteorological information **(a)** The elements which are not distributed routinely are: **(1)** state of ground, in particular, any snow cover or flooding;	change.	**other meteorological information** **(a)** The elements which are not distributed routinely are: **(1)** state of ground, in particular, any snow cover or flooding;	
~~f~~**(2)** sea-surface temperature, state of the sea, ice cover if any and ocean currents, if relevant to the search area; and	Transposed with no change.	**(2)** sea-surface temperature, state of the sea, ice cover if any and ocean currents, if relevant to the search area; and	MET.TR
~~g~~**(3)** sea-level pressure data.	Transposed with no change.	**(3)** sea-level pressure data.	
~~**2.2 Information to be provided on request**~~	---	---	---
~~2.2.1 Recommendation.~~ **(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.	Transposed with no change.	**(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.	MET.TR
~~2.2.2 Recommendation.~~ **AMC1 MET.OR.220(g) Forecasts and other meteorological information – General** To facilitate search and rescue operations, the ~~designated~~ aerodrome meteorological office or	Transposed with no change. Editorial change only.	**AMC1 MET.OR.220(g) Forecasts and other meteorological information – General** To facilitate search and rescue operations, the aerodrome meteorological office or	MET.OR

ICAO Annex 3, Part II	Justification/reason for changes	Proposed NPA 2014-07 (A) text	Relevant Part
meteorological watch office should ~~supply~~ provide:		meteorological watch office should provide:	
a) complete and detailed information on the current and forecast meteorological conditions in the search area; and	Transposed with no change.	**(a)** complete and detailed information on the current and forecast meteorological conditions in the search area; and	MET.OR
b) current and forecast conditions en route, covering flights by search aircraft from and returning to the aerodrome from which the search is being conducted.	Transposed with no change.	**(b)** current and forecast conditions en route, covering flights by search aircraft from and returning to the aerodrome from which the search is being conducted.	MET.OR
~~2.2.3 Recommendation.~~ (c) on request from the rescue coordination centre, ~~the designated aerodrome meteorological office or meteorological watch office should supply or arrange for the supply of~~ meteorological information required by ships undertaking search and rescue operations.	Editorial change – the deleted text is already introduced in the introductory sentence of this AMC.	**(c)** on request from the rescue coordination centre, meteorological information required by ships undertaking search and rescue operations.	MET.OR
~~**3. INFORMATION TO BE PROVIDED FOR AERONAUTICAL INFORMATION SERVICES UNITS**~~	---	---	---
~~**3.1 List of information**~~	---	---	---
MET.TR.220 Forecasts and other meteorological information ~~The following~~ **(c)** Meteorological information ~~shall be provided~~ ~~supplied, as necessary,~~ to ~~an~~	Transposed with no change. Editorial changes only.	**MET.TR.220 Forecasts and other meteorological information** **(c)** Meteorological information provided to aeronautical information services units shall	MET.TR

ICAO Annex 3, Part II	Justification/reason for changes	Proposed NPA 2014-07 (A) text	Relevant Part
aeronautical information services units shall include:		include:	
(~~a~~1) information on meteorological service for international air navigation, intended for inclusion in the aeronautical information publication(s) concerned;	Transposed with no change.	**(1)** information on meteorological service for international air navigation, intended for inclusion in the aeronautical information publication(s) concerned; and	MET.TR
~~Note. — Details of this information are given in Annex 15, Appendix 1, Part 1, GEN 3.5 and Part 3, AD 2.2, 2.11, 3.2 and 3.11.~~	This Note is not considered relevant to keep.	---	---
(2~~b~~) information necessary for the preparation of NOTAM or ASHTAM; and ~~including, in particular, information on:~~	This paragraph is restructured and contains now elements in AMC.	**(2)** information necessary for the preparation of NOTAM or ASHTAM; and	MET.TR
AMC1 MET.OR 220(f) Forecasts and other meteorological information – General For the preparation of NOTAM or ASHTAM the relevant aeronautical information service unit should be provided with information about: **(a)** the establishment, withdrawal and significant changes in operation of aeronautical meteorological services~~. This information is required to be provided to the aeronautical information services unit~~ sufficiently in advance of the effective date to permit issuance of NOTAM in compliance with Annex 15, 5.1.1 and 5.1.1.1;	Text added as the elements of this paragraph are subject to a new AMC. It is added for introductory purposes only.	**AMC1 MET.OR.220(f) Forecasts and other meteorological information – General** For the preparation of NOTAM or ASHTAM the relevant aeronautical information service unit should be provided with information about: **(a)** the establishment, withdrawal and significant changes in operation of aeronautical meteorological services sufficiently in advance of the effective date to permit issuance of NOTAM in compliance with Annex 15, 5.1.1 and 5.1.1.1;	MET.OR

ICAO Annex 3, Part II	Justification/reason for changes	Proposed NPA 2014-07 (A) text	Relevant Part
~~2) the occurrence of volcanic activity; and~~	This paragraph is not transposed as it is already covered by 220(f) and 250(b)(3)	---	---
~~Note.— The specific information required is given in Chapter 3, 3.3.2 and Chapter 4, 4.8.~~	This Note is not considered relevant to keep.	---	---
~~3) release of radioactive materials into the atmosphere, as agreed between the meteorological and appropriate civil aviation authorities concerned; and~~	This paragraph is not transposed as it is already covered by MET.OR.220(j)	---	---
~~Note.— The specific information required is given in Chapter 3, 3.4.2 g).~~	This Note is not considered relevant to keep.	---	---
(b~~c~~) information necessary for the preparation of aeronautical information circulars, including, in particular, information on~~:~~ ~~1)~~ expected important changes in aeronautical meteorological procedures, services and facilities provided.~~; and~~ ~~2) effect of certain weather phenomena on aircraft operations.~~	Point 2) is not transposed because the obligation is not on the MET service provider	**(b)** information necessary for the preparation of aeronautical information circulars, including, in particular, information on expected important changes in aeronautical meteorological procedures, services and facilities provided.	MET.OR

ICAO Annex 3, Part II	Justification/reason for changes	Proposed NPA 2014-07 (A) text	Relevant Part
~~**APPENDIX 10. TECHNICAL SPECIFICATIONS RELATED TO REQUIREMENTS FOR AND USE OF COMMUNICATIONS**~~ ~~(See Chapter 11 of this Annex.)~~	---	---	---
~~**1. SPECIFIC REQUIREMENTS FOR COMMUNICATIONS**~~	This point 1 is not transpose as it is considered to be out of scope because once the information is disseminated by the meteorological provider, it is no longer under its responsibility.	---	---
~~**1.1 Required transit times of meteorological information**~~	Point 1 not transposed as out of scope.	---	---
~~Recommendation.— Unless otherwise determined by regional air navigation agreement, AFTN messages and bulletins containing operational meteorological information should achieve transit times of less than the following:~~	Point 1 not transposed as out of scope.	---	---
~~SIGMET and AIRMET messages, volcanic ash and tropical cyclone advisory information and special air reports..... 5 minutes~~	Point 1 not transposed as out of scope.	---	---
~~Abbreviated plain-language amendments to significant weather and upper-air forecasts~~	Point 1 not transposed as out of scope.	---	---

ICAO Annex 3, Part II	Justification/reason for changes	Proposed NPA 2014-07 (A) text	Relevant Part
~~..... 5 minutes~~			
~~Amended TAF and corrections to TAF..... 5 minutes~~	Point 1 not transposed as out of scope.	---	---
~~METAR 0-900 km~~ ~~Trend forecasts (500 NM) ..... 5 minutes~~ ~~TAF more than 900 km~~ ~~SPECI (500 NM) ..... 10 minutes~~	Point 1 not transposed as out of scope.	---	---
~~**1.2 Grid point data for ATS and operators**~~	Point 1 not transposed as out of scope.	---	---
~~1.2.1 Recommendation.— When upper-air data for grid points in digital form are made available for use by air traffic services computers, the transmission arrangements should be as agreed between the meteorological authority and the appropriate ATS authority.~~	Point 1 not transposed as out of scope.	---	---
~~1.2.2 Recommendation.— When upper-air data for grid points in digital form are made available to operators for flight planning by computer, the transmission arrangements should be as agreed among the world area forecast centre concerned,~~	Point 1 not transposed as out of scope.	---	---

ICAO Annex 3, Part II	Justification/reason for changes	Proposed NPA 2014-07 (A) text	Relevant Part
~~the meteorological authority and the operators.~~			
~~**2. USE OF AERONAUTICAL FIXED SERVICE COMMUNICATIONS AND THE PUBLIC INTERNET**~~	---	---	---
~~**2.1 Meteorological bulletins in alphanumeric format**~~	---	---	---
~~2.1.1 Composition of bulletins~~	---	---	---
~~Recommendation.— Whenever possible, exchanges of operational meteorological information should be made in consolidated bulletins of the same types of meteorological information.~~	This paragraph is not transposed as it is not within the control of a meteorological service provider per se.	---	---
~~2.1.2 Filing times of bulletins~~	---	---	---
~~Recommendation.— Meteorological bulletins required for scheduled transmissions should be filed regularly and at the prescribed scheduled times.~~ **MET.TR.250(c)(5) Meteorological reports and other information** METAR shall~~ould~~ be filed for transmission not later than 5 minutes after the actual time of observation. **MET.TR.225(c) Aerodrome forecasts (TAF)** TAF shall~~ould~~ be filed for transmission at least one hour before the commencement of their	This recommendation is upgraded to IR as the timeline for providing the meteorological information is considered as being an important factor for the entire MET system.	**MET.TR.250(c)(5) Meteorological reports and other information** METAR shall be filed for transmission not later than 5 minutes after the actual time of observation. **MET.TR.225(c) Aerodrome forecasts (TAF)** TAF shall be filed for transmission at least one hour before the	MET.TR

ICAO Annex 3, Part II	Justification/reason for changes	Proposed NPA 2014-07 (A) text	Relevant Part
period of validity.		commencement of their period of validity.	
~~2.1.3 Heading of bulletins~~	---	---	---
MET.TR.115 Meteorological bulletins **(a)** Meteorological bulletins ~~containing operational meteorological information to be transmitted via the aeronautical fixed service or the public Internet~~ shall contain a suitable heading ~~a heading~~ consisting of:	The deleted text is considered redundant.	**MET.TR.115 Meteorological bulletins** **(a)** Meteorological bulletins shall contain a suitable heading consisting of:	MET.TR
(~~a~~1) an identifier of four letters and two figures; **(~~b~~2)** the ICAO four-letter location indicator corresponding to the geographical location of the meteorological office originating or compiling the meteorological bulletin; **(~~c~~3)** a day-time group; and **(~~d~~4)** if required, a three-letter indicator.	Transposed with no change.	**(1)** an identifier of four letters and two figures; **(2)** the ICAO four-letter location indicator corresponding to the geographical location of the meteorological office originating or compiling the meteorological bulletin; **(3)** a day-time group; and **(4)** if required, a three-letter indicator.	MET.TR
~~Note 1.~~ **GM1.MET.TR.115(a) Meteorological bulletins** Detailed specifications on format and contents of the heading are given in WMO Publication No. 386, Manual on the Global Telecommunication System, Volume I and ~~are reproduced~~ in the	Transposed with no change.	**GM1 MET.TR.115(a) Meteorological bulletins** Detailed specifications on format and contents of the heading are given in WMO Publication No. 386, Manual on the Global Telecommunication System,	MET.TR

ICAO Annex 3, Part II	Justification/reason for changes	Proposed NPA 2014-07 (A) text	Relevant Part
Manual of Aeronautical Meteorological Practice (Doc 8896).		Volume I and in the ICAO Manual of Aeronautical Meteorological Practice (Doc 8896).	
~~Note 2.—~~ **GM1 MET.TR.115(a)(2) Meteorological bulletins** ICAO location indicators are listed in Location Indicators (Doc 7910).	Transposed with no change.	**GM1 MET.TR.115(a)(2) Meteorological bulletins** LOCATION INDICATOR ICAO location indicators are listed in Location Indicators (Doc 7910).	MET.TR
~~2.1.4 Structure of bulletins~~	---	---	---
MET.TR.115 Meteorological bulletins **(b)** Meteorological bulletins containing operational meteorological information to be transmitted via the AFTN shall be encapsulated in the text part of the AFTN message format.	Transposed with no change.	**MET.TR.115 Meteorological bulletins** **(b)** Meteorological bulletins containing operational meteorological information to be transmitted via the AFTN shall be encapsulated in the text part of the AFTN message format.	MET.TR
~~**2.2 World area forecast system products**~~	---	---	---
~~2.2.1 Telecommunications for the supply of WAFS products~~	---	---	---
AMC1 MET.TR.265(a) World Area Forecast Centre (WAFC) ~~Recommendation.—~~ The telecommunications facilities used for the supply	Transposed with no change.	**AMC1 MET.TR.265(a) World Area Forecast Centre (WAFC)** The telecommunications facilities used	MET.TR

ICAO Annex 3, Part II	Justification/reason for changes	Proposed NPA 2014-07 (A) text	Relevant Part
of world area forecast system products should be the aeronautical fixed service or the public Internet.		for the supply of world area forecast system products should be the aeronautical fixed service or the public Internet.	
~~2.2.2 Quality requirements for charts~~	---	---	---
~~Recommendation. — Where world area forecast system products are disseminated in chart form, the quality of the charts received should be such as to permit reproduction in a sufficiently legible form for flight planning and documentation. Charts received should be legible over 95 per cent of their area.~~	This recommendation is not transposed as it is put on the end receiver and not on the meteorological service as such.	---	---
~~2.2.3 Quality requirements for transmissions~~	---	---	---
~~Recommendation. —~~ **AMC2 MET.TR.265(a) Information exchange requirements** ~~Transmissions should be such as to ensure that their interruption should not~~ The telecommunications facilities used for the supply of world area forecast system products should be continuous and should not have interruptions exceed 10 minutes during any period of 6 hours.	This recommendation is amended to provide better wording. The content remains.	**AMC2 MET.TR.265(a) Information exchange requirements** The telecommunications facilities used for the supply of world area forecast system products should be continuous and should not have interruptions exceeding 10 minutes during any period of 6 hours.	MET.TR
~~2.2.4 Heading of bulletins containing WAFS products~~	---	---	---

ICAO Annex 3, Part II	Justification/reason for changes	Proposed NPA 2014-07 (A) text	Relevant Part
~~Meteorological bulletins containing WAFS products in digital form to be transmitted via aeronautical fixed service or the public Internet shall contain a heading as given in 2.1.3.~~	This paragraph is not transposed as it is already covered under MET.TR.110(a).	---	---
~~**3. USE OF AERONAUTICAL MOBILE SERVICE COMMUNICATIONS**~~	This point 3 is not transposed as it concerns data link operations which will be subject to a separate rulemaking task in the future.	---	---
~~**3.1 Content and format of meteorological messages**~~	Not transposed – data link related.	---	---
~~3.1.1 The content and format of reports, forecasts and SIGMET information transmitted to aircraft shall be consistent with the provisions of Chapters 4, 6 and 7 of this Annex.~~	Not transposed – data link related.	---	---
~~3.1.2 The content and format of air-reports transmitted by aircraft shall be consistent with the provisions of Chapter 5 of this Annex and the Procedures for Air Navigation Services — Air Traffic Management (PANS-ATM, Doc 4444), Appendix 1.~~	Not transposed – data link related.	---	---
~~**3.2 Content and format of meteorological bulletins**~~	---	---	---
~~The substance of a meteorological bulletin transmitted via the aeronautical mobile service~~	Not transposed – data link related.	---	---

ICAO Annex 3, Part II	Justification/reason for changes	Proposed NPA 2014-07 (A) text	Relevant Part
~~shall remain unchanged from that contained in the bulletin as originated.~~			
~~**4. USE OF AERONAUTICAL DATA LINK SERVICE – D-VOLMET**~~	This point 4 is not transposed as it concerns data link operations which will be subject to a separate rulemaking task in the future.	---	---
~~**4.1 Detailed content of meteorological information available for D-VOLMET**~~	---	---	---
~~4.1.1 The aerodromes for which METAR, SPECI and TAF are to be available for uplink to aircraft in flight shall be determined by regional air navigation agreement.~~	Not transposed – data link related. The provision of D-VOLMET is often not a meteorological provider issue, as it is often linked with ATS broadcast systems.	---	---
~~4.1.2 The flight information regions for which SIGMET and AIRMET messages are to be available for uplink to aircraft in flight shall be determined by regional air navigation agreement.~~	Not transposed – data link related. The provision of D-VOLMET is often not a meteorological provider issue, as it is often linked with ATS broadcast systems.	---	---
~~**4.2 Criteria related to information to be available for D-VOLMET**~~	---	---	---
~~4.2.1 Recommendation.— The latest available METAR, SPECI and TAF, and valid SIGMET and AIRMET should be used for uplink to aircraft in flight.~~	Not transposed – data link related.	---	---

ICAO Annex 3, Part II	Justification/reason for changes	Proposed NPA 2014-07 (A) text	Relevant Part
~~4.2.2 Recommendation.— TAF included in the D-VOLMET should be amended as necessary to ensure that a forecast, when made available for uplink to aircraft in flight, reflects the latest opinion of the aerodrome meteorological office concerned.~~	Not transposed – data link related.	---	---
~~4.2.3 Recommendation.— If no SIGMET message is valid for a flight information region, an indication of "NIL SIGMET" should be included in the D-VOLMET.~~	Not transposed as it is not considered to be a meteorological issue as such.	---	---
~~**4.3 Format of information to be available for D-VOLMET**~~	---	---	---
~~The content and format of reports, forecasts and SIGMET and AIRMET information included in D-VOLMET shall be consistent with the provisions of Chapters 4, 6 and 7 of this Annex.~~	Not transposed as it is not considered to be a meteorological issue as such.	---	---
~~**5. USE OF AERONAUTICAL BROADCASTING SERVICE — VOLMET BROADCASTS**~~	---	---	---
~~**5.1 Detailed content of meteorological information to be included in VOLMET broadcasts**~~	---	---	---
~~5.1.1 The aerodromes for which METAR, SPECI and TAF are to be included in VOLMET broadcasts, the sequence in which they are to be~~	Not transposed as it is not considered to be a meteorological	---	---

ICAO Annex 3, Part II	Justification/reason for changes	Proposed NPA 2014-07 (A) text	Relevant Part
~~transmitted and the broadcast time shall be determined by regional air navigation agreement.~~	issue as such.		
~~5.1.2 The flight information regions for which SIGMET messages are to be included in scheduled VOLMET broadcasts shall be determined by regional air navigation agreement. Where this is done, the SIGMET message shall be transmitted at the beginning of the broadcast or of a five-minute time block.~~	Not transposed as it is not considered to be a meteorological issue as such.	---	---
~~**5.2 Criteria related to information to be included in VOLMET broadcasts**~~	---	---	---
~~5.2.1 Recommendation.— When a report has not arrived from an aerodrome in time for a broadcast, the latest available report should be included in the broadcast, together with the time of observation.~~	Not transposed as it is not considered to be a meteorological issue as such.	---	---
~~5.2.2 Recommendation.— TAF included in scheduled VOLMET broadcasts should be amended as necessary to ensure that a forecast, when transmitted, reflects the latest opinion of the aerodrome meteorological office concerned.~~	Not transposed as it is not considered to be a meteorological issue as such.	---	---
~~5.2.3 Recommendation.— Where SIGMET messages are included in scheduled VOLMET broadcasts, an indication of "NIL SIGMET" should be transmitted if no SIGMET message is valid for~~	Not transposed as it is not considered to be a meteorological issue as such.	---	---

ICAO Annex 3, Part II	Justification/reason for changes	Proposed NPA 2014-07 (A) text	Relevant Part
~~the flight information regions concerned.~~			
~~**5.3 Format of information to be included in VOLMET broadcasts**~~	---	---	---
~~5.3.1 The content and format of reports, forecasts and SIGMET information included in VOLMET broadcasts shall be consistent with the provisions of Chapters 4, 6 and 7 of this Annex.~~	Not transposed as it is not considered to be a meteorological issue as such.	---	---
~~5.3.2 Recommendation.— VOLMET broadcasts should use standard radiotelephony phraseologies.~~	Not transposed as it is not considered to be a meteorological issue as such.	---	---
~~Note.— Guidance on the standard radiotelephony phraseologies to be used in VOLMET broadcasts is given in the Manual on Coordination between Air Traffic Services, Aeronautical Information Services and Aeronautical Meteorological Services (Doc 9377), Appendix 1.~~	Not transposed as this Note is related to the provisions above.	---	---