## Model AFI regional procedures without red-line/strike-out markings

#### Introduction

- 1. This part of the CAR/SAM AFI Basic Air Navigation Plan contains elements of the existing planning system and introduces the basic planning principles, operational requirements and planning criteria related to aeronautical meteorology (MET) as developed for the CAR/SAM AFI Regions and considered to be the minimum necessary for effective planning of MET facilities and services. A detailed description/list of the facilities and/or services to be provided by States in order to fulfill the requirements of the Basic ANP is contained in the CAR/SAM AFI Facilities and Services Implementation Document (FASID). During the transition and pending full implementation of the future CNS/ATM systems, it is expected that the existing requirements will gradually be replaced by the new CNS/ATM related requirements. Further, it is expected that some elements of the CNS/ATM systems will be subject to amendment, as necessary, on the basis of experience gained in their implementation.
- 2. The Standards, Recommended Practices and Procedures to be applied are contained in Annex 3 *Meteorological Service for International Air Navigation*.
- 3. Background information of importance in the understanding and effective application of the Plan is contained in the *Report of the Third Caribbean/South American Seventh Africa-Indian Ocean Regional Air Navigation Meeting* (Doc 9749 02), supplemented by information appropriate to the CAR/SAM AFI Regions which is contained in the reports of the other regional air navigation meetings.
- 4. RAN meeting recommendations or conclusions, CAR/SAM AFI Regional Planning and Implementation Group (GREPECAS APIRG) conclusions and ICAO operations groups conclusions shown in brackets below a heading indicate the origin of all paragraphs following that heading. RAN Meeting recommendations or conclusions, (GREPECAS APIRG) conclusions and ICAO operations groups conclusions shown in brackets below a paragraph indicate the origin of that particular paragraph.

# Meteorological service required at aerodromes and requirements for meteorological watch offices (FASID Tables MET 1A and MET 1B)

- 5. The service to be provided at the international aerodromes listed in the Appendix to Part III of the Basic [AFI, ASIA/PAC, CAR/SAM, EUR, MID, NAT] ANP is set out in FASID Table MET 1A.
- 6. The service to be provided for flight information regions (FIRs), upper flight information

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- 8. TAF should normally be issued at intervals of 6 hours, with the period of validity beginning at one of the main synoptic hours (00, 06, 12, 18 UTC). The period of validity should be of 18 or 24 hours' duration to meet the requirements indicated in FASID Table MET 1 A. The filing time of the forecasts should be [two] hours before the start of the period of validity.
- 9. The forecast maximum and minimum temperature together with their respective times of occurrence should be included in TAF for certain aerodromes as agreed between the meteorological authorities and the operators concerned.
- 10. Trend forecasts should be provided at the aerodromes as indicated in FASID Table MET 1A.
- 11. Meteorological service should be provided on a 24-hours basis, except as otherwise agreed between the meteorological authority, the air traffic services authority and the operators concerned.
- 12. At aerodromes with limited hours of operation, METAR should be issued at least [1,2] hour(s) prior to the aerodrome resuming operations to meet pre-flight and in-flight planning requirements for flights due to arrive at the aerodrome as soon as it is opened for use. Furthermore, TAF should be issued with adequate periods of validity so that, they cover the entire period during which the aerodrome is open for use.
- 13. When a meteorological watch office (MWO) is temporarily not functioning or is not able to meet all its obligations, its responsibilities should be transferred to another MWO and a NOTAM should be issued to indicate such a transfer and the period during which the office is unable to fulfil all its obligations.
- 14. Details of the service provided should be indicated in Aeronautical Information Publications in accordance with the provisions of Annex 15.
- 15. As far as possible, English should be among the languages used in meteorological briefing and consultation.
- 16. FASID Tables MET 1A and MET 1B should be implemented as soon as possible, with the understanding that only those parts of the briefing and documentation called for in column 7 of FASID Table MET 1A that are required for current operations need to be available, and that the implementation of new MWO or changes to the area served by existing MWO indicated in FASID Table MET 1B, columns 1 and 3 respectively, should take place coincidentally with the implementation of, or changes to, the FIR/UIR/CTA/SRR concerned.

Note. — The approved list of ATS/MET reporting points is published and kept up to date by the ICAO Regional Offices concerned, on the basis of consultations with ATS and MET authorities in each State and the provisions of Annex 3 in this respect.

18. The meteorological watch office (MWO) designated as the collecting centre for air-reports received by voice communications within the FIR/UIR for which they are responsible, is shown in FASID Table MET 1B, Column 1.

#### **SIGMET and AIRMET information**

(FASID Tables MET 3 A and 3 B)

- 19. The period of validity of SIGMET messages should not exceed 4 hours. In the special case of SIGMET messages for volcanic ash cloud and tropical cyclones, the validity period should be extended up to 6 hours and an outlook should be added giving information for an additional period of up to 12 hours, concerning the trajectory of the volcanic ash cloud and positions of the centre of the tropical cyclone, respectively.
- 20. In order to assist MWOs in the preparation of the outlook included in SIGMET messages for tropical cyclones, tropical cyclone advisory centre(s) (TCAC) [Darwin, Honolulu, Miami, Nadi, New Delhi, Réunion, Tokyo] has/have been designated to prepare the required advisory information and disseminate it to the MWOs concerned in the [AFI, ASIA/PAC, CAR/SAM, MID, NAT] Region(s). FASID Table MET 3A sets out the area(s) of responsibility, the period(s) of operation of the TCAC(s) and the MWOs to which the advisory information should be sent. Advisory information should be issued for those tropical cyclones in which the surface wind speed averaged over 10 minutes is expected to equal or exceed 63 km/h (34 kt).
- 21. In order to assist MWOs in the preparation of the outlook included in SIGMET messages for volcanic ash, volcanic ash advisory centre(s) (VAAC) [Anchorage, Buenos Aires, Darwin, London, Montreal, Tokyo, Toulouse, Washington, Wellington] has/have been designated to prepare the required advisory information and disseminate it to the MWOs and area control centres (ACCs) concerned in the [AFI, ASIA/PAC, CAR/SAM, EUR, MID, NAT] Region following notification/detection of the ash cloud. FASID Table MET 3 B sets out the area(s) of responsibility of the VAAC(s) and the MWOs and ACCs to which the advisory information should be sent.
- 22. In order for the VAACs to initiate the monitoring of volcanic ash from satellite data and the forecast of volcanic ash trajectories, MWOs should notify the relevant VAAC immediately on receipt of information that a volcanic eruption has occurred or volcanic ash has been observed in the FIR for which

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23. AIRMET messages are not required to be issued by MWOs.

### **Exchange of operational meteorological information**

(FASID Tables MET 2A and 2AB)

#### International OPMET data banks

24. The International OPMET data bank(s) in [.... Brussels\* and Vienna\*] has/have been designated to serve States in the [AFI, ASIA/PAC, CAR/SAM, EUR, MID, NAM, NAT] Regions to access OPMET information which is required but not received.

Note.—A list of the OPMET information available at the international OPMET data banks designated to serve the {AFI, ASIA/PAC, CAR/SAM, EUR, MID, NAT} Region(s), together with the procedures to be used in communicating with the data banks are contained in the Catalogue of international OPMET data available at the OPMET data bank of [.... Toulouse\* Brussels\* and Vienna\*]" published by the ICAO Regional Offices concerned.

Note.— \* Until such time that Dakar and Pretoria data banks are implemented.

## Exchange of METAR, SPECI and TAF

- 25. METAR, SPECI and TAF which should be available at meteorological offices, area control centres and flight information centres is contained in FASID Table MET 2A. This table should be updated, as necessary, by the ICAO Regional Offices concerned on the basis of changes in the pattern of aircraft operations and in accordance with the Statement of Basic Operational Requirements and Planning Criteria, in consultation with those States and international organizations directly concerned.
- 26. The exchanges indicated in FASID Table MET 2A should be implemented as soon as possible to meet the requirements of current aircraft operations. The availability at meteorological offices of the required OPMET information should be reviewed continuously. Any changes in this respect (i.e. additional OPMET information needed or OPMET information no longer required) should be notified to the corresponding meteorological authority which, in turn, should amend its corresponding address lists and inform the ICAO Regional Offices.

## Exchange of SIGMET information and air-reports

27. The exchange requirement for SIGMET and special air-reports are contained in FASID

- 29. Each MWO should arrange for the transmission to its associated ACC/FIC of SIGMET messages and special air-reports received from other MWOs.
- 30. Each MWO should arrange for the transmission of routine air-reports received by voice communications to all meteorological offices within its associated FIR. Special air-reports which do not warrant the issuance of a SIGMET should be disseminated by MWO in the same way as SIGMET messages, in accordance with FASID Table MET 2B.

#### World area forecast system (WAFS)

(FASID Tables MET 5, MET 6 and MET 7)

- 31. FASID Table MET 5 sets out the [AFI, ASIA/PAC, CAR/SAM, EUR, MID, NAT] Region[s] requirements for WAFS forecasts to be provided by WAFC-[London, Washington].
- 32. The levels for which forecasts of upper-air wind and temperature and SIGWX in chart form are to be provided by the WAFC [London, Washington] and the areas to be covered by these charts are indicated in FASID Table MET 5.

Note.— WAFCs will continue to issue forecasts of upper-air wind and temperature and of SIGWX in chart form until 1 July 2005 31 December 2006.

- 33. FASID Table MET 6 sets out the responsibilities of WAFCs London and Washington for the production of WAFS forecasts. For back-up purposes, each WAFC should have the capability to produce WAFS forecasts for all the required areas of coverage.
- 34. The projection of the WAFS forecasts in chart form and their areas of coverage should be as indicated in FASID Charts MET 4, MET 5 and MET 6 associated with FASID Table MET 6; their scale should be 1:20 X 10<sup>6</sup>, true at 22.5<sup>0</sup> in the case of charts in the Mercator projection, and true at 60<sup>0</sup> latitude in the case of charts in the polar stereo-graphic projection.

Note.— WAFCs will continue to issue forecasts of upper-air wind and temperature and of SIGWX in chart form until 1 July 2005 31 December 2006.

- 35. WAFS products should be disseminated by WAFC [London, Washington] using the [satellite distribution system for information relating to air navigation (SADIS), international satellite communications system (ISCS1, ISCS2)] covering the reception area shown in FASID Chart CNS [4]. To fulfil the requirements of long distance flights, transmission of WAFS products should be completed not later than [11] hours before validity time.
- 36. The amendment service to the SIGWX forecasts issued by WAFCs London and Washington