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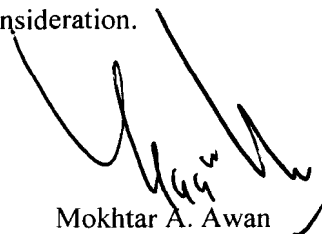
**Subject:** Approval of Proposal for amendment of  
ASIA/PAC Basic Air Navigation Plan, Vol. 1 (Doc 9673)  
(Serial No.: APAC 09/22 – MET)

Sir/Madam,

I have the honour to communicate to you the attached approval of proposal for amendment of Basic Air Navigation Plan (Basic ANP) ICAO Doc 9673, which has been originated by the World Area Forecast System Operations Group (WAFSOPSG) and the Asia/Pacific Air Navigation Planning and Implementation Regional Group (APANPIRG), has been approved by the President of the Council on 15 March 2010.

The approved proposal will be incorporated in the next consolidated amendment to be issued to the Air Navigation Plan, Asia and Pacific Regions, Vol. I, Basic Air Navigation Plan (Doc 9673).

Accept, Sir/Madam, the assurances of my highest consideration.

  
Mokhtar A. Awan  
Regional Director

**Enclosure:**

Approved Proposal for Amendment of  
Basic Air Navigation Plan – Part VI MET  
(Serial No.: APAC 09/22 – MET)

## PART VI

### METEOROLOGY (MET)

#### INTRODUCTION

1. This part of the Asia and Pacific (ASIA/PAC) 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 ASIA/PAC regions.

2. As a complement to the Statement of Basic Operational Requirements and Planning Criteria (BORPC) set out in Part I, Part VI constitutes the stable guidance material and considered to be the minimum necessary for effective planning of MET facilities and services in the ASIA/PAC regions. A detailed description/list of the facilities and/or services to be provided by States in order to fulfill the requirements of the plan is contained in the ASIA/PAC Facilities and Services Implementation Document (FASID). During the transition and pending full implementation of the future communications, navigation and surveillance/air traffic management (CNS/ATM) system, it is expected that the existing requirements will gradually be replaced by new CNS/ATM-related requirements. Further, it is expected that some elements of the CNS/ATM system will be subject to amendment, as necessary, on the basis of experience gained in their implementation.

3. The Standards, Recommended Practices and Procedures to be applied are contained in:

- a) Annex 3 — *Meteorological Service for International Air Navigation*; and
- b) *Regional Supplementary Procedures* (Doc 7030).

4. Background information of importance in the understanding and effective application of this part of the plan is contained in the *Report of the Third Asia/Pacific*

*Regional Air Navigation Meeting* (Doc 9614, ASIA/PAC/3 (1993)), supplemented by information appropriate to the ASIA/PAC regions which is contained in the reports of the other regional air navigation (RAN) meetings.

5. A RAN meeting recommendation or conclusion, ASIA/PAC Air Navigation Planning and Implementation Regional Group (APANPIRG) conclusion or ICAO operations group conclusion shown in brackets below a heading indicates the origin of all paragraphs following that heading. A RAN meeting recommendation or conclusion, APANPIRG conclusion or ICAO operations group conclusion shown in brackets below a paragraph indicates the origin of that particular paragraph.

#### **METEOROLOGICAL SERVICE REQUIRED AT AERODROMES AND REQUIREMENTS FOR METEOROLOGICAL WATCH OFFICES** (FASID Tables MET 1A and MET 1B)

6. The service to be provided at international aerodromes listed in the Appendix to Part III of the Basic ANP is set out in FASID Table MET 1A. [ASIA/PAC/3, Recs. 8/1 and 8/16]

7. The service to be provided for flight information regions (FIRs), upper flight information regions (UIRs), control areas (CTAs) and search and rescue regions (SRRs) is set out in FASID Table MET 1B. [ASIA/PAC/3, Recs. 8/2 and 8/16]

8. Hourly routine observations should be made at all aeronautical meteorological stations, to be issued as local routine reports and METAR, together with special observations to be issued as local special reports and SPECI. [ASIA/PAC/3, Rec. 8/16]

9. TAF should be issued, at intervals of six 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 24 or 30 hours to meet the requirements indicated in FASID Table MET 1A. The filing time of the TAF bulletins should be one hour before the start of the period of validity.  
[APANPIRG/19 Con. 19/46]

10. 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.  
[ASIA/PAC/3, Rec. 8/16]

11. Trend forecasts should be provided at the aerodromes as indicated in FASID Table MET 1A.  
[ASIA/PAC/3, Recs. 8/1 and 8/16]

12. Meteorological service should be provided on a twenty-four hour basis, except as otherwise agreed between the meteorological authority, the air traffic services (ATS) authority and the operators concerned.  
[ASIA/PAC/3, Rec. 8/16]

13. At aerodromes with limited hours of operation, METAR should be issued prior to the aerodrome resuming operations to meet pre-flight and in-flight planning requirements for flights due to arrive at the aerodrome concerned 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.  
[ASIA/PAC/3, Rec. 8/16]

14. 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.  
[ASIA/PAC/3, Rec. 8/16]

15. Details of the service provided should be indicated in the Aeronautical Information Publication (AIP) in accordance with the provisions of Annex 15.  
[ASIA/PAC/3, Rec. 8/16]

16. As far as possible, English should be among the languages used in meteorological briefing and consultation. [ASIA/PAC/3, Rec. 8/16]

17. FASID Tables MET 1A and MET 1B should be implemented as soon as possible. The implementation of a new MWO or changes to the area served by existing MWO indicated in FASID Table MET 1B, should take place coincidentally with the implementation of, or changes to, the FIR/UIR/CTA/SRR concerned.  
[ASIA/PAC/3, Rec. 8/16]

#### **AIRCRAFT OBSERVATIONS AND REPORTS** (FASID Table MET 1B)

18. The meteorological authority should adopt the approved list of ATS/MET reporting points, as it relates to points located within and on the boundaries of the FIR for which the State is responsible. Those ATS/MET reporting points should be published in the AIP, under GEN 3.5.6 — Aircraft reports, of the State concerned.  
[ASIA/PAC/3, Rec. 8/16]

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

19. The MWOs designated as collecting centres for air-reports received by voice communication with the corresponding FIR/UIR are shown in FASID Table MET 1B.

#### **SIGMET AND AIRMET INFORMATION** (FASID Tables MET 3A, MET 3B and MET 3C)

20. Tropical cyclone advisory centres (TCACs) Darwin, Honolulu, Miami, Nadi, New Delhi, Réunion and Tokyo have been designated to prepare advisory information. FASID Table MET 3A sets out the area of responsibility, the period(s) of operation of the TCAC(s) and the MWOs to which the advisory information should be sent.  
[IAVWOPSG Conclusion 3/2]

21. Volcanic ash advisory centres (VAACs) Anchorage, Darwin, Tokyo, Washington and Wellington have been designated to prepare advisory information. FASID Table MET 3B sets out the area of responsibility of the VAACs, the MWOs and ACCs to which the advisory information should be sent.  
[IAVWOPSG Conclusion 3/2]

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 they are responsible. In particular, any special air-reports of pre-eruption volcanic activity, a volcanic eruption or volcanic ash cloud received by MWOs should be transmitted without delay to the VAAC concerned. Selected State volcano observatories have been designated for direct notification of significant pre-eruption volcanic activity, a volcanic eruption and/or volcanic ash in the atmosphere to their corresponding ACC, MWO and VAAC. FASID Table MET 3C sets out the selected State volcano observatories and the VAACs, MWOs and ACCs to which the notification should be sent by the observatories. [IAVWOPSG Conclusion 2/2]

23. AIRMET messages are not required to be issued by MWOs. [APANPIRG/7, Conc. 7/22]

**EXCHANGE OF OPERATIONAL  
METEOROLOGICAL (OPMET) INFORMATION**  
(FASID Tables MET 2A, ROBEX Handbook and  
Asia/Pacific OPMET data banks interface control  
document)

**Exchange of METAR, SPECI and TAF**

24. The ROBEX Handbook set out the Regional OPMET Bulletin Exchange (ROBEX) Scheme for the collection and dissemination of METAR, SPECI, air-reports (AIREP) and TAF. These tables contain information regarding the designated ROBEX centres and their respective areas of responsibility. [APANPIRG/20, Conc. 20/65]

25. The ROBEX Handbook should be updated, as necessary, by the ICAO Asia and Pacific Regional Office (Bangkok) in coordination with the ICAO Middle East Regional Office (Cairo) on the basis of changes in the pattern of aircraft operations, the Statement of Basic Operational Requirements and Planning Criteria and in consultation with those States and international organizations directly concerned. [APANPIRG/20, Conc. 20/65]

26. Requirements for METAR, SPECI and TAF not carried on the ROBEX Scheme which should be available at meteorological offices are contained in

FASID Table MET 2A. This table should be updated, as necessary, by the ICAO Regional Office on the basis of changes in the pattern of aircraft operations, the Statement of Basic Operational Requirements and Planning Criteria, and in consultation with those States and international organizations directly concerned. [ASIA/PAC/3, Recs. 9/1 and 9/8]

27. The exchanges indicated in FASID Table MET 2A should be implemented as soon as possible, but only for those related to current aircraft operations. New exchanges should be started coincidentally with the introduction of new aircraft operations. 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 inform the ICAO Regional Offices concerned. [ASIA/PAC/3, Rec. 9/8]

**OPMET data banks  
to support the ROBEX Scheme**

28. The OPMET data banks in Bangkok, Brisbane, Nadi, Singapore and Tokyo have been designated to support the ROBEX scheme and serve States in the ASIA/PAC regions to access OPMET information which is required but not received. The Asia/Pacific OPMET data banks interface control document sets out the responsibilities of the ASIA/PAC OPMET data banks for collection and dissemination of OPMET bulletins together with procedures to be used in communicating with the data banks to support the ROBEX Scheme. The Asia/Pacific OPMET data banks interface control document is maintained by the ICAO Asia and Pacific Regional Office (Bangkok) in coordination with the regional OPMET data banks. [APANPIRG/20, Conc. 20/66]

**Exchange of SIGMET information  
and air-reports**

29. Each MWO should arrange for the transmission to all aerodrome meteorological offices within its associated FIR of its own SIGMET messages and relevant SIGMET messages for other FIR, as required for briefing and, where appropriate, for flight documentation. [ASIA/PAC/3, Rec. 8/16]

30. Each MWO should arrange for the transmission to its associated ACC/FIC of SIGMET information and special air-reports received from other MWOs.

31. Each MWO should arrange for the transmission of routine air-reports received by voice communication to all meteorological offices within its associated FIR. Special air-reports which do not warrant the issuance of a SIGMET should be disseminated by MWOs in the same way as SIGMET messages.

*Note.— Details of the procedures regarding the exchange of SIGMET information required by FASID Table MET 1B are provided in the ASIA/PAC SIGMET Guide prepared by the ICAO Asia and Pacific Regional Office, Bangkok.*

### **WORLD AREA FORECAST SYSTEM (WAFS)** (FASID Table MET 5)

32. FASID Table MET 5 sets out the ASIA/PAC Regions requirements for WAFS forecasts to be provided by WAFC London and WAFC Washington.  
[WAFSOPSG Conclusion 1/2]

33. For back-up purposes, each WAFC should have the capability to produce WAFS forecasts for all the required areas of coverage.  
[WAFSOPSG Conclusion 5/2]

34. WAFS forecasts should be disseminated by WAFC London using the satellite distribution system for information relating to air navigation (SADIS) and by WAFC Washington using the international satellite communications system (ISCS2) covering the reception areas shown in the *Manual of Aeronautical Meteorological Practice* (Doc 8896) Figures A1-2 and A1-3 or using the SADIS FTP or ISCS FTP service.  
[WAFSOPSG Conclusion 5/2]

35. Each State should make the necessary arrangements to receive and make full operational use of WAFS forecasts disseminated by WAFC London and WAFC Washington. The lists of the authorized users of the SADIS and ISCS2 satellite broadcasts in the ASIA/PAC regions and location of the operational VSATs are available from the following websites:

[www.icao.int/anb/sadisopsg](http://www.icao.int/anb/sadisopsg) (click: “Status of implementation”) for SADIS

[www.weather.gov/iscs](http://www.weather.gov/iscs) (click: “Documents” and “Status of implementation of ISCS listed by ICAO regions”) for ISCS.

[WAFSOPSG Conclusion 5/2]