



*International Civil Aviation Organization*

**MIDANPIRG Meteorology Sub-Group  
Fifth Meeting (MET SG/5)**

*(Jeddah, Saudi Arabia, 2 – 4 September 2014)*

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**Agenda Item 5: Review of the MET Provisions in the MID Basic ANP and FASID**

**REVIEW MID AIR NAVIGATION PLAN – MET PART**

*(Presented by the Secretariat)*

**SUMMARY**

This paper provides the MET Part of the MID Regional Air Navigation Plan for review and updates, where deemed necessary.

Action by the meeting is at paragraph 3.

**1. INTRODUCTION**

1.1 The meeting will recall amendment proposals for the MID Basic ANP (Serial No. MID-BASIC 14/01-MET) and MID FASID (Serial No. MID-FASID 14/02-MET) were approved on 14 April 2014 (AN 10/5A – 14/103) and 7 April 2014 (AN 10/5A-14/092) respectively. These amendment proposals were based on States' inputs as well as outcomes from the seventh meeting of the World Area Forecast System Operations Group (WAFSOPSG/7) and seventh meeting of the International Airways Volcano Watch Operations Group (IAVWOPSG/7).

1.2 In addition, the meeting will recall the proposal for amendment for the MID-FASID (Serial No. MID-FASID 14/05-MET) was approved on 16 July 2014 (AN 10/5A-14/192). This proposal was based on the eighth meeting of the International Airways Volcano Watch Operations Group (IAVWOPSG/8).

**2. DISCUSSION**

2.1 The current MET Part of the MID Air Navigation Plan Volume I and Volume II (Doc 9708) as provided in **Appendix A** and **Appendix B** to this working paper, may be reviewed by States to reflect current services, and provide updates where necessary for future processing in accordance to established procedures.

2.2 The meeting is also requested to inform the Secretariat if the FASID Table MET 2C, "Exchange of Operational Meteorological Information during the Pilgrimage Season", was still necessary in light of the fact that the development of the electronic Air Navigation Plan attempts to harmonize the regional plans as much as possible and this table is referenced in the AFI and MID Regions only.

**3. ACTION BY THE MEETING**

3.1 The meeting is invited to:

- a) note the contents in this paper; and
- b) review the MID RANP-MET and provide updates, where necessary for future processing.

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## **MID ANP VOLUME I (BASIC ANP) PART VI (MET)**

### **Part VI**

#### **METEOROLOGY (MET)**

##### **INTRODUCTION**

1. This part of the Middle East (MID) 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 MID Region.
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 considered to be the minimum necessary for effective planning of MET facilities and services in the MID Region. 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 MID Facilities and Services Implementation Document (FASID).
3. The Standards, Recommended Practices and Procedures to be applied are contained in the following ICAO documents:
  - a) Annex 3 — Meteorological Service for International Air Navigation;
  - b) Regional Supplementary Procedures (Doc 7030), Part 3 - Meteorology.
4. Background information of importance in the understanding and effective application of the Plan is contained in the Reports of the Limited Middle East (COM/MET/RAC) Regional Air Navigation Meeting (Doc 9672, LIM MID (COM/MET/RAC)(1996)) and of the Third Middle East Regional Air Navigation Meeting (Doc 9434, MID/3 (1984)), supplemented by information appropriate to the MID Region which is contained in the Reports of the other Regional Air Navigation Meetings.
5. RAN Meeting recommendations or conclusions, Middle East Air Navigation Planning and Implementation Regional Group (MIDANPIRG) conclusions and ICAO operations groups conclusions shown in brackets below a heading indicate the origin of all paragraphs following that heading; where these conclusions are shown in brackets below a paragraph they indicate the origin of that particular paragraph.

##### **METEOROLOGICAL SERVICE AT AERODROMES AND REQUIREMENTS FOR METEOROLOGICAL WATCH OFFICES**

(FASID Tables MET 1A and MET 1B)

6. The service to be provided at the international aerodromes listed in MID Basic ANP Table AOP1 is set out in FASID Table MET 1A.  
[LIM MID (COM/MET/RAC), Rec.4/10]
7. The service to be provided for flight information regions (FIR), upper flight information regions (UIR), control areas (CTA) and search and rescue regions (SRR) is set out in FASID Table MET 1B.  
[LIM MID (COM/MET/RAC), Rec. 4/10]
8. Routine observations should be made at all aeronautical stations at hourly intervals and reports issued as local routine reports and METAR, complemented by special observations issued as local special reports and SPECI.  
[MID/3, Rec. 3.1/12]

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 24 or 30 hours, to meet the requirements indicated in FASID Table MET 1A. The filing time of the forecasts should be one hour before the start of the period of validity.

[MIDANPIRG/11 Report]

10. The forecast maximum temperatures should be included in aerodrome forecasts for certain stations as agreed between the meteorological authorities and the operators concerned.

[LIM MID (COM/MET/RAC) Rec. 4/10]

11. Trend forecasts should be provided at the aerodromes as indicated in FASID Table MET 1A.

[LIM MID (COM/MET/RAC), Rec. 4/10]

12. Meteorological service should be provided on a 24 hour basis, except as otherwise agreed between the meteorological authority, the air traffic services authority and the operators concerned.

[MID/3, Rec.3.1/12]

13. At aerodromes with limited hours of operation, the issuance of METAR should be issued at least one hour 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.

[MID/3, Rec. 3.1/12]

14. When an 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.

[MID/3, Rec. 3.1/12]

15. Details of the service provided should be indicated in Aeronautical Information Publications, in accordance with the provisions of Annex 15.

[MID/3, Rec. 3.1/12]

16. As far as possible, English should be among the languages used in meteorological briefing and consultation.

[MID/3, Rec. 3.1/12]

17. FASID Tables MET 1A and 1B should be implemented as soon as possible.

## **AIRCRAFT OBSERVATIONS AND REPORTS**

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 of the State concerned.

[LIM MID (COM/MET/RAC), Rec.4/19]

*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 meteorological watch offices (MWO) designated as the collecting centres for air-reports received by voice communications within the FIR/UIR for which they are responsible, are shown in FASID Table MET 1B.

## **AIRMET INFORMATION**

20. AIRMET messages are not required to be issued by MWOs.  
[LIM MID (COM/MET/RAC), Rec. 4/10]

## **TROPICAL CYCLONE ADVISORIES AND VOLCANIC ASH ADVISORIES**

(FASID Tables MET 3A, 3B and 3C; FASID Charts MET1 and MET2)

21. Tropical cyclone advisory centre (TCAC) New Delhi has been designated to prepare advisory information. FASID Table MET 3A sets out the area of responsibility, the period of operation of the TCAC and the MWOs to which the advisory information should be sent.  
[IAVWOPSG Conclusion 3/2]

22. Volcanic ash advisory centre (VAAC) Toulouse has been designated to prepare advisory information. FASID Table MET 3B sets out the area of responsibility of the VAACs, and the MWOs and ACCs/FICs to which the advisory information should be sent.  
[IAVWOPSG Conclusion 3/2]

23. In order for the VAAC to initiate the monitoring of volcanic ash from satellite data and the forecast of volcanic ash trajectories, MWOs should notify the 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 Toulouse. 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/FIC, MWO and VAAC. FASID Table MET 3C sets out the selected State volcano observatories and the VAACs, MWOs and ACCs/FICs to which the notification should be sent by the observatories.  
[IAVWOPSG Conclusion 3/2]

## **EXCHANGE OF OPERATIONAL METEOROLOGICAL INFORMATION**

(FASID Tables MET 2A, 2B, 2C, 4A and 4B)

24. FASID Table MET 2A sets out the requirements for operational meteorological (OPMET) information, which should be made available to States and users through the satellite distribution system for information relating to air navigation (SADIS) and the Secure SADIS FTP Service and the WAFS Internet File Service. FASID Table MET 2B contains the exchange requirements to the EUR Region for SIGMET- and AIRMET-messages, volcanic ash and tropical cyclone advisories and special air reports, originated by States in the MID Region, to satisfy international flight operations for uplink to SADIS.

*Note: Volcanic ash advisories and tropical cyclone advisories are not originated by States in the MID Region.*

25. FASID Table MET 2C sets out the operational meteorological information which should be available in Saudi Arabia for the pilgrimage flights. For its implementation, ICAO should notify, in accordance with AFI/6, Recommendation 6/24, as approved by Council, meteorological offices concerned well in advance of the exact dates of the beginning and the end of the Pilgrimage Season (cf also Doc 7474, Table MET 2C).  
[LIM MID (COM/MET/RAC), Rec. 5/3]

26. FASID Tables MET 4A and MET 4B set out the Regional OPMET Bulletin Exchange (ROBEX) Scheme for the collection of METAR and air reports (AIREP), and TAF, respectively. When the designated ROBEX centres are not operational for any reason, the exchanges required under the ROBEX Scheme should be carried out by direct address messages.  
[LIM MID (COM/MET/RAC), Rec. 5/5]

*Note.— Details of the ROBEX procedures including the exchange of OPMET information required under the scheme are given in the ROBEX Handbook prepared by the ICAO Asia and Pacific Office, Bangkok, Thailand.*

27. 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.

[MID/3, Rec. 3.1/12]

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

29. Each MWO should arrange for the transmission of routine air-reports received by voice communications to all meteorological offices within its associated FIR.

30. Operational meteorological information required in MID States from the EUR Region should be requested from the inter-regional OPMET Gateway (IROG), Vienna. OPMET information from the AFI Region should be requested from Jeddah (OEJNYM). OPMET information from ASIA/PAC Region should be requested from IROG Bangkok.

#### **WORLD AREA FORECAST SYSTEM (WAFS)**

(FASID Table MET 5)

31. FASID Table MET 5 sets out the MID Region requirements for WAFS forecasts to be provided by WAFC London.

[WAFSOPSG Conclusion 1/2]

32. For back-up purposes, each WAFC should have the capability to produce WAFS forecasts for all required areas of coverage.

[WAFSOPSG Conclusion 5/2]

33. WAFS forecasts should be made available by WAFC London using the satellite distribution system for information relating to air navigation (SADIS), including the Secure SADIS FTP Service.

[WAFSOPSG Conclusion 7/2]

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*Editorial note. – Insert “or using the SADIS service” in the corresponding CNS procedure contained in Part IV of the ANP*

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34. Each State should make the necessary arrangements to receive and make full use of operational WAFS forecasts made available by WAFC London. The lists of the authorized users of the SADIS services in the MID Region and the locations of the operational VSATs and/or Internet-based services are available from the following website:

[www.icao.int/safety/meteorology/sadisopsg](http://www.icao.int/safety/meteorology/sadisopsg) (click: “Operational Information” and then “Status of implementation of SADIS”) for SADIS.

[WAFSOPSG Conclusion 7/2]

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## MID ANP VOLUME II (FASID) PART VI (MET)

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### METEOROLOGY (MET)

#### 1. Introduction

1.1 The Standards, Recommended Practices and Procedures to be applied are as listed in paragraph 1.2, Part VI - MET of the MID Basic ANP. The material in this part complements that contained in Part I – Statement of Basic Operational Requirements and Planning Criteria (BORPC) of the MID Basic ANP and should be taken into consideration in the overall planning processes for the MID Region.

1.2 This Part contains a detailed description/list of the facilities and/or services to be provided to fulfil the basic requirements of the Plan and are as agreed between the provider and user States concerned. Such agreement indicates a commitment on the part of the State(s) concerned to implement the requirement(s) specified. This element of the FASID, in conjunction with the MID Basic ANP, is kept under constant review by the MIDANPIRG in accordance with its schedule of management, in consultation with user and provider States and with the assistance of the ICAO Middle East Office, Cairo.

#### 2. Meteorological Service Required at Aerodromes and Requirements for Meteorological Watch Offices (FASID Tables MET 1A and 1B)

2.1 The meteorological service to be provided at aerodromes to satisfy international flight operations is outlined in FASID Table MET 1A.

2.2 The requirements for meteorological watch offices (MWO) together with the service to be provided to flight information regions (FIR), upper flight information regions (UIR) and search and rescue regions (SRR) are listed in FASID Table MET 1B.

#### 3. Exchange of Operational Meteorological Information (FASID Tables MET 2A, 2B, 2C, 4A and 4B)

3.1 The requirements for availability of OPMET information (METAR, SPECI and TAF) on a global basis through the satellite distribution system for information relating to air navigation (SADIS) and the Secure SADIS FTP Service and the WAFS Internet File Service are provided in FASID Table MET 2A. This table contains the aerodromes included in the AOP Table of the Basic ANP and those non-AOP aerodromes for which the States concerned have agreed to make available the OPMET information via the satellite distribution system on a regular basis. FASID Table MET 2B contains the exchange requirements to the EUR Region for SIGMET- and AIRMET-messages, volcanic ash and tropical cyclone advisories and special air reports, originated by States in the MID Region, to satisfy international flight operations for uplink to SADIS.

*Note: Volcanic ash advisories and tropical cyclone advisories are not originated by States in the MID Region.*

3.2 FASID Table MET 2C contains the operational meteorological information which should be available in Saudi Arabia for the pilgrimage flights.

3.3 FASID Tables MET 4A and 4B set out the Regional OPMET Bulletin Exchange (ROBEX) Scheme for the exchange of METAR, SPECI, air reports (AIREP) and TAF.

*Note. - Details of the ROBEX procedures including the exchange of OPMET information required under the Scheme are given in the ROBEX Handbook published by the ICAO Asia and Pacific Office, Bangkok in co-ordination with the ICAO MID Office, Cairo. The ROBEX handbook is available via the 'MET' section of: <http://www.bangkok.icao.int/edocs/index.html>.*



**4. Tropical Cyclone Warning System and International Airways Volcano Watch**  
(FASID Tables MET 3A, MET 3B, and MET 3C and FASID Charts MET 1 and 2)

4.1 The area of responsibility and the periods of operation of the designated Tropical Cyclone Advisory Centre (TCAC) New Delhi and the MWOs to which the advisory information should be sent by the TCAC are contained in FASID Table MET 3A. The areas of responsibility of the designated TCACs in all regions are shown on FASID Chart MET 1.

4.2 The area of responsibility of the designated Volcanic Ash Advisory Centre (VAAC) Toulouse, and the MWOs and ACCs/FICs to which the advisory information should be sent by the VAAC are contained in FASID Table MET 3B. The areas of responsibility of the designated VAACs in all regions are shown on FASID Chart MET 2.

4.3 FASID Table MET 3C sets out the selected State volcano observatories in the MID Region designated for direct notification of significant pre-eruption volcanic activity and/or volcanic ash in the atmosphere and the VAACs, MWOs and ACCs/FICs to which the notification should be sent by the observatories.

*Note 1. - Operational procedures to be used for the dissemination of information on volcanic eruptions and associated ash clouds in areas which could affect routes used by international flights, and necessary pre-eruption arrangements as well as the list of operational contact points are provided in the document titled Handbook on the International Airways Volcano Watch (IAVW) - Operational Procedures and Contact List (Doc 9766). Additional guidance material regarding the IAVW is contained in the Manual on Volcanic Ash, Radioactive Material and Toxic Chemical Clouds (Doc 9691).*

**5. World Area Forecast System (WAFS)**  
(FASID Table MET 5)

5.1 FASID Table MET 5 sets out the MID Region requirements for WAFS forecasts to be provided by WAFC London.

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**MID ANP VOLUME II (FASID) PART VI (MET)**

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**TABLE MET 1A - METEOROLOGICAL SERVICE AT AERODROMES**

*EXPLANATION OF THE TABLE*

*Column*

1. Name of the aerodrome.
2. ICAO location indicator of the aerodrome.
3. Designation of aerodrome:  
 RG - international general aviation, regular use  
 RS - international scheduled air transport, regular use  
 RNS - international non-scheduled air transport, regular use  
 AS - international scheduled air transport, alternate use  
 ANS - international non-scheduled air transport, alternate use
4. Name of the meteorological office responsible for the provision of meteorological service at the aerodrome indicated in column 1.
5. ICAO location indicator of the responsible meteorological office.
6. Requirement for trend forecasts.
7. Requirement for aerodrome forecasts in TAF code  
 T – Requirement for 24-hour validity aerodrome forecasts in TAF code (24H)  
 X - Requirement for 30-hour validity aerodrome forecasts in TAF code (30H)
8. Availability of OPMET information  
 F - Full : OPMET data as listed issued for the aerodrome all through the 24-hour period  
 P - Partial : OPMET data as listed not issued for the aerodrome for the entire 24-hour period  
 N - None : No OPMET data issued for the time being

Aerodrome where service is to be provided			Responsible MET office		Forecasts to be provided		Availability of OPMET
Name 1	ICAO Location Indicator 2	Use 3	Name 4	ICAO Location Indicator 5	TR 6	TAF 7	
<b>BAHRAIN</b>							
BAHRAIN INTERNATIONAL	OBBI	RS	BAHRAIN INTERNATIONAL	OBBI	Y	X	F
<b>EGYPT</b>							
AL ALAMAIN/ INTL	HEAL	AS	CAIRO/INTL	HECA		*	P
ALEXANDRIA / INTL	HEAX	RS	CAIRO/INTL	HECA	Y	X	F
ASWAN / INTL	HESN	RS	CAIRO/INTL	HECA	Y	X	F
ASYUT / INTL	HEAT	AS	CAIRO/INTL	HECA		X	F
CAIRO/INTL	HECA	RS	CAIRO/INTL	HECA	Y	X	F
HURGHADA / INTL	HEGN	RS	CAIRO/INTL	HECA	Y	X	F
LUXOR / INTL	HELX	RS	CAIRO/INTL	HECA	Y	X	F
MARSA ALAM / INTL	HEMA	RS	CAIRO/INTL	HECA		X	F
SHARK EL OWEINAT / INTL	HEOW	AS	CAIRO/INTL	HECA		X	F
SHARM EL SHEIKH / INTL	HESH	RS	CAIRO/INTL	HECA		X	F
SOHAG INTERNATIONAL AIRPORT	HESG	AS	CAIRO/INTL	HECA		*	P
ST.CATHERINE / INTL	HESC	AS	CAIRO/INTL	HECA		X	F
TABA / INTL	HETB	RS	CAIRO/INTL	HECA		X	F
<b>IRAN (ISLAMIC REPUBLIC OF)</b>							
BANDAR ABBASS/INTL	OIKB	RS	TEHRAN/MEHRABAD INTL	OIII		T	F
ESFAHAN / SHAHID BEHESHTI INTL	OIFM	RS	TEHRAN/MEHRABAD INTL	OIII		X	F
MASHHAD/SHAHID HASHEMI NEJAD INTL	OIMM	RS	TEHRAN/MEHRABAD INTL	OIII		T	F
SHIRAZ/SHAHID DASTGHAIB INTL	OISS	RS	SHIRAZ/SHAHID DASTGHAIB INTL	OISS	Y	X	F
TABRIZ/INTL	OITT	RNS	TABRIZ/INTL	OITT		X	F
TEHRAN/IMAM KHOMAINI INTL	OIIE	RS	TEHRAN/MEHRABAD INTL	OIII	Y	X	F
TEHRAN/MEHRABAD INTL	OIII	RS	TEHRAN/MEHRABAD INTL	OIII	Y	T	F
ZAHEDAN/INTL	OIZH	RS	TEHRAN/MEHRABAD INTL	OIII		T	F
<b>IRAQ</b>							
AL NAJAF	ORNI	RNS				T	F
BAGHDAD INTERNATIONAL AIRPORT	ORBI	RS	BAGHDAD INTERNATIONAL AIRPORT	ORBI	Y	T	F
BASRAH INTL AIRPORT	ORMM	RS	BAGHDAD INTERNATIONAL AIRPORT	ORBI	Y	T	F
ERBIL INTL AIRPORT	ORER	RS				T	F
MOSUL INTERNATIONAL AIRPORT	ORBM	RS	BAGHDAD INTERNATIONAL AIRPORT	ORBI	Y	T	F
SULAYMANIYAH INTERNATIONAL AIRPORT	ORSU	RS				T	F
<b>JORDAN</b>							
AMMAN/MARKA	OJAM	AS	AMMAN/MARKA	OJAM	Y	T	F
AMMAN/QUEEN ALIA	OJAI	RS	AMMAN/MARKA	OJAM	Y	X	F
AQABA/KING HUSSEIN	OJAQ	RNS	AMMAN/MARKA	OJAM			F
JERUSALEM/JERUSALEM	OJJR	RS	AMMAN/MARKA	OJAM			N
<b>KUWAIT</b>							
KUWAIT/INTL AIRPORT	OKBK	RS	KUWAIT/INTL AIRPORT	OKBK	Y	X	F
<b>LEBANON</b>							
BEIRUT/BEIRUT INTL	OLBA	RS	BEIRUT/BEIRUT INTL	OLBA	Y	X	F
<b>LIBYA</b>							

Aerodrome where service is to be provided			Responsible MET office		Forecasts to be provided		Availability of OPMET
Name 1	ICAO Location Indicator 2	Use 3	Name 4	ICAO Location Indicator 5	TR 6	TAF 7	
BENGHAZI (Benina Intl)	HLLB	RS	BENGHAZI (Benina Intl)	HLLB	Y	T	F
SEBHA (Sebha Intl)	HLLS	RS	BENGHAZI (Benina Intl)	HLLB			F
TRIPOLI (Tripoli Intl)	HLLT	RS	TRIPOLI (Tripoli Intl)	HLLT	Y	T	F
<b>OMAN</b>							
MUSCAT/MUSCAT INTL	OOMS	RS	MUSCAT/MUSCAT INTL	OOMS	Y	X	F
SALALAH	OOSA	AS	SALALAH	OOSA		X	F
<b>QATAR</b>							
DOHA INTERNATIONAL	OTBD	RS	DOHA INTERNATIONAL	OTBD	Y	X	F
HAMAD INTERNATIONAL	OTHH	RS	DOHA INTERNATIONAL	OTBD	Y	X	F
<b>SAUDI ARABIA</b>							
DAMMAM/KING FAHD INTERNATIONAL	OEDF	RS				X	F
JEDDAH/KING ABDULAZIZ INTERNATIONAL	OEJN	RS	JEDDAH/KING ABDULAZIZ INTERNATIONAL	OEJN	Y	X	F
MADINAH/PRINCE MOHAMMAD BIN ABDULAZIZ INTERNATIONAL	OEMA	RS	JEDDAH/KING ABDULAZIZ INTERNATIONAL	OEJN	Y	T	F
RIYADH/KING KHALED INTERNATIONAL	OERK	RS	JEDDAH/KING ABDULAZIZ INTERNATIONAL	OEJN	Y	X	F
<b>SOUTH SUDAN</b>							
JUBA	HSSJ	RS	KHARTOUM	HSSS			N
<b>SUDAN</b>							
KASSALA	HSKA	AS	KHARTOUM	HSSS			F
KHARTOUM	HSSS	RS	KHARTOUM	HSSS	Y	X	F
PORT SUDAN	HSPN	RS	WADI HALFA	HSSW		X	F
<b>SYRIAN ARAB REPUBLIC</b>							
ALEPPO/INTL	OSAP	RS	DAMASCUS/INTL	OSDI		T	F
BASSEL AL-ASSAD/INTL. LATTAKIA	OSLK	RS	DAMASCUS/INTL	OSDI		T	F
DAMASCUS/INTL	OSDI	RS	DAMASCUS/INTL	OSDI	Y	X	F
<b>UNITED ARAB EMIRATES</b>							
ABU DHABI INTERNATIONAL	OMAA	RS	ABU DHABI INTERNATIONAL	OMAA	Y	X	F
AL AIN INTERNATIONAL	OMAL	RS	ABU DHABI INTERNATIONAL	OMAA		X	F
DUBAI INTERNATIONAL	OMDB	RS	DUBAI INTERNATIONAL	OMDB	Y	X	F
DUBAI/AL MAKTOUM INTERNATIONAL	OMDW	RS	DUBAI INTERNATIONAL	OMDB	Y	X	F
FUJAIRAH INTERNATIONAL	OMFJ	RS	DUBAI INTERNATIONAL	OMDB		X	F
RAS AL KHAIMAH INTERNATIONAL	OMRK	RS	DUBAI INTERNATIONAL	OMDB		X	F
SHARJAH INTERNATIONAL	OMSJ	RS	DUBAI INTERNATIONAL	OMDB		X	F
<b>YEMEN</b>							
ADEN/INTL	OYAA	RS	SANAA/INTL	OYSN	Y	X	F
HODEIDAH/INTL	OYHD	RS	SANAA/INTL	OYSN		T	F
MUKALLA/INTL	OYRN	RS	SANAA/INTL	OYSN		T	F
SANAA/INTL	OYSN	RS	SANAA/INTL	OYSN		T	F
TAIZ/INTL	OYZT	RS	SANAA/INTL	OYSN		T	F

\*TAF available upon request

**FASID TABLE MET 1B - METEOROLOGICAL WATCH OFFICES***EXPLANATION OF THE TABLE**Column*

1	Name of State with Meteorological Watch Office (MWO) responsibility.
2	Location name of the MWO
3	ICAO location indicator assigned to the MWO.
4	Name of FIR, the UIR and/or the search and rescue region (SRR) served by the MWO.
5	ICAO location indicator assigned to the ATS unit serving the FIR, UIR and/or SRR.
6	Requirement for issuance of SIGMET, <i>excluding</i> volcanic ash SIGMET and tropical cyclone SIGMET
7	Requirement for issuance of volcanic ash SIGMET
8	Requirement for issuance of tropical cyclone SIGMET
9	Remarks

*Note.— Unless otherwise stated in column 9, the MWO listed in column 2 is the designated collecting centre for the air reports received within the corresponding FIR/UIR listed in column 4.*

## Appendix B - MET SG/5 WP/8

State	MWO location		Area served		SIGMET			Remarks
	Name	ICAO loc. ind.	Name	ICAO loc. ind.	WS	WV	WC	
1	2	3	4	5	6	7	8	9
<b>BAHRAIN</b>								
	BAHRAIN INTERNATIONAL	OBBI	BAHRAIN FIR	OBBB	Y	Y	Y	
<b>EGYPT</b>								
	CAIRO/INTL	HECA	CAIRO ACC	HECC	Y	Y		Asian part thereof
<b>IRAN (ISLAMIC REPUBLIC OF)</b>								
	TEHRAN/MEHRABAD INTL	OIII	TEHRAN (ACC/FIC/FIR)	OIIX	Y	Y	Y	
<b>IRAQ</b>								
	BAGHDAD INTERNATIONAL AIRPORT	ORBI	BAGHDAD FIR and SRR	ORBS	Y	Y		
<b>JORDAN</b>								
	AMMAN/QUEEN ALIA	OJAI	AMMAN (ACC/FIC)	OJAC	Y	Y		
<b>KUWAIT</b>								
	KUWAIT/INTL AIRPORT	OKBK	ACC/AERODROME CONTROL TOWER	OKAC	Y	Y	Y	
<b>LEBANON</b>								
	BEIRUT/BEIRUT INTL	OLBA	BEIRUT/BEIRUT INTL	OLBA	Y	Y		
<b>LIBYA</b>								
	TRIPOLI (Tripoli Intl)	HLLT	TRIPOLI FIR/SRR	HLLL*	Y	Y		
<b>OMAN</b>								
	MUSCAT/MUSCAT INTL	OOMS	MUSCAT FIR	OOMM	Y	Y	Y	
<b>SAUDI ARABIA</b>								
	JEDDAH/KING ABDULAZIZ INTERNATIONAL	OEJN	JEDDAH FIR	OEJD	Y	Y	Y	
<b>SUDAN</b>								
	KHARTOUM	HSSS	KHARTOUM FIR/SRR	HSSS	Y	Y		
<b>SYRIAN ARAB REPUBLIC</b>								
	DAMASCUS/INTL	OSDI	DAMASCUS/INTL	OSDI	Y	Y		
<b>UNITED ARAB EMIRATES</b>								
	ABU DHABI INTERNATIONAL	OMAA	EMIRATES FIR	OMAE	Y	Y	Y	
<b>YEMEN</b>								
	SANAA/INTL	OYSN	SANAA/INTL	OYSN	Y	Y	Y	

\*not in ICAO Doc 7910

**FASID Table MET 2C****EXCHANGE OF OPERATIONAL METEOROLOGICAL INFORMATION DURING THE PILGRIMAGE SEASON***EXPLANATION OF THE TABLE*

Column

- 1 Name of the State in which the operational meteorological information should be available.
- 2 Location from which, or related to which, the operational meteorological information refers.
- 3 TF – Aerodrome forecasts X: Seasonal requirement
- 4 RF – Route forecasts

To be available in	From or related to	Information required	
		TF	RF
1	2	3	4
LIBYA	DHAHRAN	X	
	MADINAH	X	
	RIYADH	X	
	ALGER (route/ruta Casablanca-Tripoli)		X
	CAIRO (route/ruta Tripoli-Jeddah)		X
SAUDI ARABIA	ABIDJAN	X	
	ACCRA	X	
	AKTYUBINSK	X	
	ALGER (ROUTE/RUTA CASABLANCA-TRIPOLI)		X
	ALMATY	X	
	ASKHABAT	X	
	BAMAKO	X	
	BANGUI	X	
	BRAZZAVILLE	X	
	CAIRO (ROUTE/RUTA TRIPOLI-JEDDAH)		X
	CONAKRY	X	
	COTONOU	X	
	DAKAR	X	
	DOUALA	X	
	DUSHANBE	X	
	KHARTOUM (ROUTE/RUTA KHARTOUM-GENEINA)		X
	KYIV	X	
	NOUADHIBOU	X	
	OUAGADOUGOU	X	
	SAL ISLAND	X	
	SAMARKAND	X	
	TASHKENT	X	
SUDAN	BAMAKO	X	
	CONAKRY	X	
	DAKAR	X	
	NOUADHIBOU	X	
	OUAGADOUGOU	X	
	SAL ISLAND	X	
	JEDDAH (route/ruta Jeddah-Khartoum)		X

**FASID TABLE MET 3A - TROPICAL CYCLONE ADVISORY CENTRE  
FOR THE MID REGION**

*EXPLANATION OF THE TABLE*

*Column*

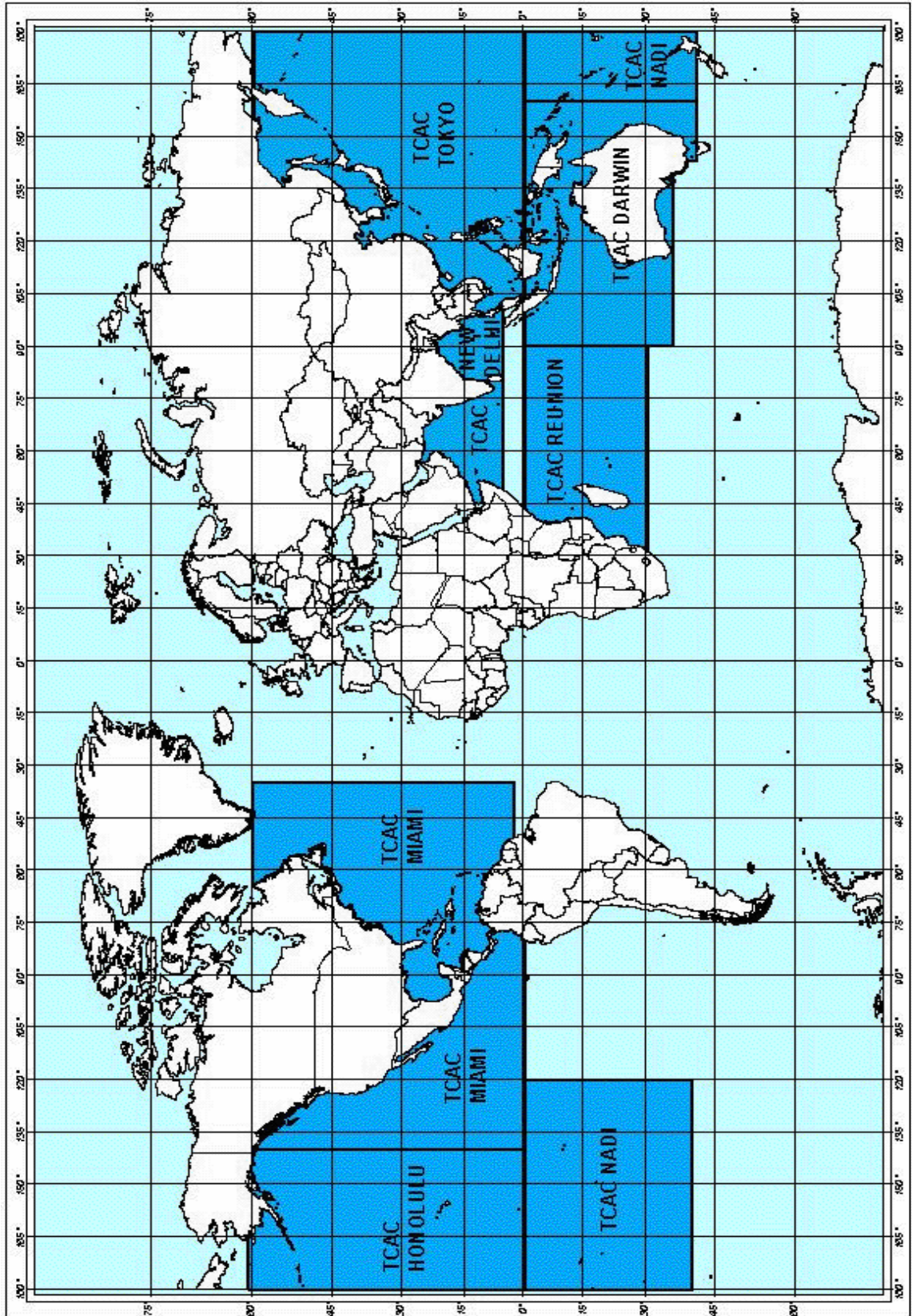
- 1 Location of the Tropical Cyclone Advisory Centre (TCAC)
- 2 ICAO location indicator of the TCAC (for use in the WMO heading of advisory bulletin)
- 3 Area of responsibility for the preparation of advisory information on tropical cyclones by the TCAC in Column 1
- 4 Period(s) of operation of the TCAC
- 5 Meteorological Watch Office (MWO) to which the advisory information on tropical cyclones should be sent
- 6 ICAO location indicator of the MWO in Column 5

Tropical Cyclone Advisory Centre		Area of Responsibility	Period(s) of operation	MWO to which advisory information is to be sent	
Name	ICAO Loc. Ind.			Name	ICAO Loc. Ind.
1	2	3	4	5	6
<b>New Delhi (India)</b>	VIDP	Arabian Sea including Gulf of Oman and Gulf of Aden N: Coastline S: 5°N W: Coastline E: 65°E	April – June October – December	Abu Dhabi International Bahrain International Jeddah/King Abdulaziz International Kuwait/Intl Airport Muscat/Muscat Intl Sanaa/Intl Tehran/Mehrabad Intl	OMAA OBBI OEJN OKBK OOMS OYSN OIII



FASID CHART MET 1 - AREAS OF RESPONSIBILITY OF THE TCACs

CURRENT STATUS OF ICAO TROPICAL CYCLONE ADVISORY CENTRES (TCACs) - AREAS OF RESPONSIBILITY  
SITUATION ACTUELLE DES CENTRES D'AVIS DE CYCLONES TROPICAUX (TCAC) OACI - ZONES DE RESPONSABILITÉ  
SITUACIÓN ACTUAL DE LOS CENTROS DE AVISOS DE CICLONES TROPICALES, OACI (TCAC) - ZONAS DE RESPONSABILIDAD



**FASID TABLE MET 3B — VOLCANIC ASH ADVISORY CENTRES***EXPLANATION OF THE TABLE**Column*

- 1 Name of the Volcanic Ash Advisory Centre (VAAC).
- 2 ICAO location indicator of VAAC (for use in the WMO header of advisory bulletin).
- 3 Area of responsibility for the preparation of advisory information on volcanic ash by the VAAC in Column 1.
- 4 State where the MWOs and ACCs/FICs are located.
- 5 ICAO Region where the MWOs and ACCs/FICs are located.
- 6 MWOs to which the advisory information on volcanic ash should be sent.
- 7 ICAO location indicator of the MWOs in Column 6.
- 8 ACCs/FICs to which the advisory information on volcanic ash should be sent.
- 9 ICAO location indicator of the ACCs/FICs in Column 8.

Volcanic Ash Advisory Centre			State	ICAO Region	MWO to which advisory information is to be sent		ACC/FIC to which advisory information is to be sent	
Name	ICAO Loc. Ind.	Area of responsibility			Name	ICAO Loc. Ind.	Name	ICAO Loc. Ind.
1	2	3	4	5	6	7	8	9
Toulouse (France)	LFPW	Santa Maria Oceanic FIR, AFI Region down to the South Pole, EUR Region (except for Finland, Kobenhavn, London, Norway, Scottish, Shannon and Sweden FIRs) west of E09000 and south of N7100, MID	Bahrain	MID	Bahrain International	OBBI	Bahrain FIR	OBBB
			Egypt	MID	Cairo/Intl	HECA	Cairo ACC	HECC
			Iran (Islamic Republic of)	MID	Tehran/Mehrabad	OIII	Tehran (ACC/FIC/FIR)	OIIX
			Iraq	MID	Baghdad International Airport	ORBI	Baghdad	ORBS*
			Jordan	MID	Amman/Queen Alia	OJAI	Amman (ACC/FIC)	OJAC
			Kuwait	MID	Kuwait/Intl Airport	OKBK	ACC/Aerodrome Control Tower	OKAC
			Lebanon	MID	Beirut/Beirut Intl	OLBA	Beirut/Beirut Intl	OLBA
			Libya	MID	Tripoli	HLLT	Tripoli	HLLL*

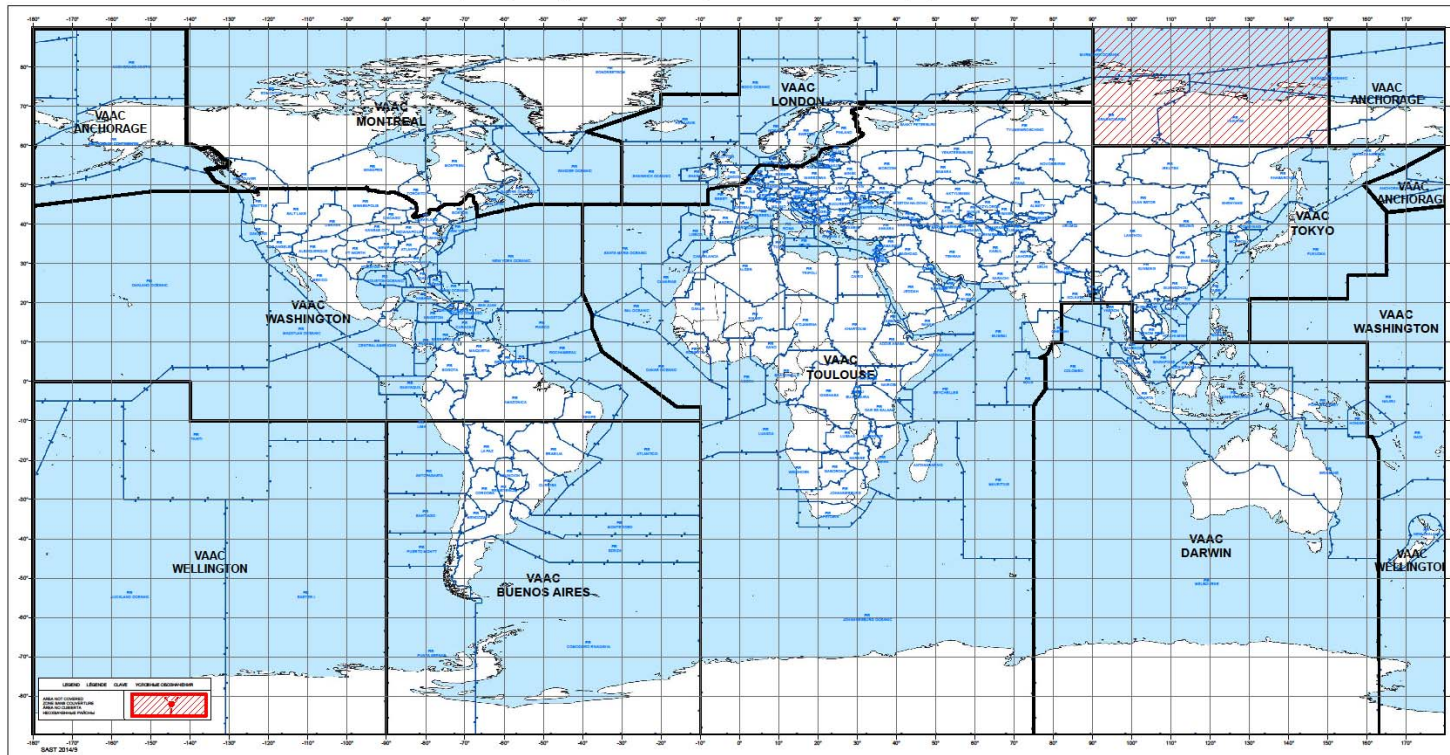
Appendix B - MET SG/5 WP/8

		Region, and ASIA Region, west of E09000 north of N2000 (plus Mumbai, Chennai (west of E08200) and Male FIRs)			(Tripoli Intl)		FIR/SRR	
			Oman	MID	Muscat/Muscat Intl	OOMS	Muscat FIR	OOMM
			Saudi Arabia	MID	Jeddah/King Abdulaziz International	OEJN	Jeddah FIR	OEJD
			Sudan	MID	Khartoum	HSSS	Khartoum FIR/SRR	HSSS
			Syrian Arab Republic	MID	Damascus/Intl	OSDI	Damascus/Intl	OSDI
			United Arab Emirates	MID	Abu Dhabi International	OMAA	Emirates FIR	OMAE
			Yemen	MID	Sanaa/Intl	OYSN	Sanaa/Intl	OYSN

\*not listed in ICAO Doc 7910

### MAP OF AREAS OF RESPONSIBILITY OF VAAC AND CORRESPONDING FIR

CURRENT STATUS OF ICAO VOLCANIC ASH ADVISORY CENTRES (VAAC) - AREAS OF RESPONSIBILITY  
SITUATION ACTUELLE DES CENTRES OACI D'AVIS DE CENDRES VOLCANIQUES (VAAC) - ZONES DE RESPONSABILITÉ  
ESTADO ACTUAL DE LOS CENTROS DE AVISOS DE CENIZAS VOLCÁNICAS (VAAC) DE LA OACI - ÁREAS DE RESPONSABILIDAD  
СУЩЕСТВУЮЩЕЕ РАСПРЕДЕЛЕНИЕ КОНСУЛЬТАТИВНЫХ ЦЕНТРОВ ИКАО ПО ВУЛКАНИЧЕСКОМУ ПЕЛЛУ (VAAC) - РАЙОНЫ ОТВЕТСТВЕННОСТИ



**FASID Table MET 3C**  
**SELECTED STATE VOLCANO OBSERVATORIES**

EXPLANATION OF THE TABLE

*Column*

- 1 Provider State of the volcano observatory designated for direct notification of volcanic activity.
- 2 Name of the volcano observatory.
- 3 VAAC to which the information related to pre-eruption volcanic activity, a volcanic eruption and/or volcanic ash cloud should be sent.
- 4 ACC/FIC to which the information related to pre-eruption volcanic activity, a volcanic eruption and/or volcanic ash cloud should be sent.
- 5 ICAO location indicator of the ACC/FIC listed in Column 4.
- 6 MWO to which information related to pre-eruption volcanic activity, a volcanic eruption and/or volcanic ash cloud should be sent.
- 7 ICAO location indicator of the MWO listed in Column 6

<i>Provider State of volcano observatory</i>	<i>Volcano observatory</i>	<i>VAAC to which the information is to be sent</i>	<i>ACC/FIC to which the information is to be sent</i>		<i>MWO to which information is to be sent</i>	
			<i>Name</i>	<i>ICAO Loc Ind.</i>	<i>Name</i>	<i>ICAO Loc Ind.</i>
1	2	3	4	5	6	7
...	...	VAAC Toulouse	...	...	...	...

*Note:— AFTN is not available at all selected volcano observatories; therefore, it is the responsibility of each State to make appropriate communication arrangements.*

*Note:—The FASID Table MET 3C to be completed when information is provided by the States concerned*

**FASID Table MET 4A****REGIONAL OPMET BULLETIN EXCHANGE (ROBEX) SCHEME –  
COLLECTION AREAS FOR AERODROME FORECASTS***EXPLANATION OF THE TABLE*

## Column

- 1 Location of the TAF collection centre
- 2 Aerodromes for which aerodrome forecasts in the TAF code form are collected

TAF Collection Centre	Collection Area
BAHRAIN	ABU DHABI ABU DHABI / AL BATEEN EXECUTIVE AL AIN AL MAKTOUM BAHRAIN DAMMAM DOHA DUBAI FUJAIRAH KUWAIT MUSCAT RAS AL KHAIMAH SALALAH SHARJAH
BEIRUT	AMMAN BAGHDAD BASRAH BEIRUT DAMASCUS
JEDDAH	ADEN DHAHRAN/DAMMAM JEDDAH MADINAH RIYADH SANA'A
TEHRAN	AHWAZ BANDAR ABBASS ESFAHAN KERMAN MASHHAD SHIRAZ TABRIZ TEHRAN ZAHEDAN

**FASID Table MET 4B****REGIONAL OPMET BULLETIN EXCHANGE (ROBEX) SCHEME –  
COLLECTION AREAS FOR AERODROME METEOROLOGICAL REPORTS AND AIR-  
REPORTS***EXPLANATION OF THE TABLE*

## Column

- 1 Location of the METAR/SPECI and AIREP collection centre
- 2 Meteorological offices for which aerodrome meteorological reports in the METAR/SPECI code form and AIREP are collected

METAR/SPECI and AIREP Collection Centre	Collection Area
BAGHDAD	BAGHDAD BASRAH
BAHRAIN	ABU DHABI ABU DHABI / AL BATEEN EXECUTIVE AL AIN AL MAKTOUM BAHRAIN DAMMAM DOHA DUBAI FUJAIRAH KUWAIT MUSCAT RAS AL KHAIMAH SHARJAH
BEIRUT	AMMAN BEIRUT DAMASCUS
JEDDAH	DHAHRAN JEDDAH MADINAH RIYADH SANA'A
TEHRAN	AHWAZ BANDAR ABBASS ESFAHAN KABUL KANDAHAR KERMAN MASHHAD SHIRAZ TABRIZ TEHRAN ZAHEDAN

**FASID TABLE MET 5 - REQUIREMENTS FOR WAFS FORECASTS**

*EXPLANATION OF THE TABLE*

*Column*

- 1 WAFS forecasts required by the MID States, to be provided by WAFc London.
- 2 Area of coverage required for the WAFS forecasts to be provided by WAFc London.

FORECASTS REQUIRED	AREAS REQUIRED
1	2
SWH forecasts (FL250-630) in the BUFR code form	GLOBAL
SWM forecasts (FL100-250) in the BUFR code form	EUR, MID
Forecasts of upper-air wind, temperature and humidity, cumulonimbus clouds, icing, and clear-air and in-cloud turbulence, and of geopotential altitude of flight levels in GRIB code form	GLOBAL

*Note 1.— SWM forecasts are provided for limited geographical areas as determined by regional air navigation agreement. Areas “EUR” and “MID” provided by WAFc London.*

*Note 2. — WAFcs will continue to issue forecasts of SIGWX in PNG chart form for back-up purposes for fixed areas of coverage as specified in Annex 3.*