

**INTERNATIONAL CIVIL AVIATION ORGANIZATION  
NORTH AMERICAN, CENTRAL AMERICAN AND CARIBBEAN OFFICE**

**FOURTH MEETING OF DIRECTORS OF CIVIL AVIATION  
OF THE CENTRAL CARIBBEAN**

(Grand Cayman, Cayman Islands, 17-20 May 2000)

**Agenda Item 2 : Results of the CAR/SAM/3 RAN Meeting**

**e) Results of MET matters**

(Presented by the Secretariat)

**Summary**

This paper presents a summary of the CAR/SAM/3 Regional Air Navigation Meeting results concerning the planning and implementation matters in the MET field

**References:**

- Report of the CAR/SAM/3 RAN Meeting (yellow cover)

**1. INTRODUCTION**

1.1 The Third Caribbean/South American Regional Air Navigation (CAR/SAM/3 RAN) meeting was held in Buenos Aires, Argentina from 5 to 15 October 1999. The meeting was attended by 32 Contracting States and 8 international organizations. It developed 120 recommendations and 47 conclusions, including 27 recommendations and 3 conclusions in the MET field, as well as the draft of a fully-updated CAR/SAM air navigation plan (ANP), in the Council-approved format of Basic ANP and Facilities and Services Implementation Document (FASID).

1.2 The work of the meeting was based on the Statement of Basic Operational Requirements and Planning Criteria as approved by the Air Navigation Commission (ANC). Moreover, following the Council's decision to waive the need to base the formulation of the regional plan on the traditional Table of Aircraft Operations, the meeting relied on other inputs such as those developed by the GREPECAS Air traffic Forecasting Task Force and material gathered by the ICAO Lima and Mexico Regional Offices. The work of the meeting also was based on the outcome of the review of the CAR/SAM Air Navigation Plan carried out by GREPECAS at its eighth meeting in November 1998 and additional preparatory work carried out by the Secretariat in co-ordination with the States and international organizations.

1.3 On November 1999, the Air Navigation Commission reviewed the report of the meeting and hereby presents the results of this review to the Council. The results of the actions taken by the Commission under delegated authority as well as by the Council regarding the recommendations and conclusions in the MET field, are set out in the paragraphs hereunder.

## **2 RESULTS IN THE MET FIELD**

### **Agenda Item 7 – Aeronautical meteorological offices and their functions, and meteorological observations networks**

2.1 The Meeting may wish to note that the CAR/SAM/3 RAN Meeting, under this agenda item, updated the requirements for meteorological facilities and services in the CAR/SAM Regions and approved new formats of tables to indicate these requirements in the air navigation plan in order to facilitate future developments arising from the progressive implementation of the CNS/ATM systems.

2.2 Also will may be noted that in order to foster the implementation of SIGMETs concerning tropical cyclones and volcanic ash, the details of the service to be provided to the meteorological watch offices (MWOs) by the tropical cyclone adviser centre (TCAC) Miami and volcanic ash advisory centres (VAACs) Buenos Aires and Washington were revised.

2.3 With respect to the meteorological observation networks in the CAR/SAM Regions, the Meeting may wish to note that the CAR/SAM/3 agreed that the current regional basic network as developed by the World Meteorological Organization (WMO), if fully implemented, would meet the requirements of the civil aviation in the CAR/SAM Regions; however, difficulties continue to be reported due to the irregular availability of basic synoptic data in the regions. In this regard the CAR/SAM/3 formulated a recommendation (Recommendation 7/6) which is reproduced in **Attachment A** to this paper to easy of reference.

2.4 The Meeting will also note that, in view of the deployment by practically all the CAR/SAM States of VSATs stations to receive world area forecast system ( WAFS ) and operational meteorological (OPMET) data using the International Satellite Communications System ( ISCS/1 ) of the United States, recommendations have been developed to update the current requirements for WAFS data to render them compatible with the situation during the transition to the final phase of the system ( please see Recommendations 7/8 and 7/9 in the Attachment A).

2.5 It should be noted that the air-reporting procedures in the CAR/SAM Regions had not yet been fully implemented. In this regard the CAR/SAM/3 meeting called for States to review the local arrangements ( please see Conclusion 7/11 and Recommendation 7/12 in the Attachment A ). Likewise, the regional procedures related to air reporting were updated to take account of automatic air reporting in the CAR/SAM environment.

**Agenda Item 8 – Exchange of operational meteorological data between ground stations**

2.6 The results of the CAR/SAM/3 meeting regarding the OPMET exchange between ground stations are in relation with the current trend in the world towards the centralization of meteorological services, accentuated by the widespread introduction by airline operators of centralized dispatch and operational control functions. In consequence, the CAR/SAM/3 agreed that the requirements for exchange of OPMET data be arranged in two separate tables dealing respectively with the requirements for aerodromes and airspace .

**Agenda Item 13 – Implementation of the CAR/SAM Air Navigation Plan, with particular emphasis on shortcomings and deficiencies in the air navigation field affecting safety**

2.7 As a result of the discussions held under this agenda item, the meeting formulated a detailed programme for the implementation of the recommended facilities and services in relation with agenda items 7 and 8 .

2.8 List of recommendations and conclusions formulated by the CAR/SAM/3 meeting related with implementation of facilities and services in the MET field requiring a follow-up by States, is shown in **Attachment A** to this working paper .

**3 ACTION BY THE MEETING**

3.1 The Meeting is invited to take into account the information presented in this working paper and to adopt the corresponding actions so that each State (or groups of States) and International Organizations in the Central Caribbean:

- a) implement the relevant conclusions and recommendations of the CAR/SAM/3 Meeting;
- b) review the corresponding parts of the approved Basic ANP and FASID and in order to keep them updated present to the ICAO Regional Office the necessary proposals for amendments, additions and deletions; and
- c) implement, so as to achieve international requirements established in the CAR/SAM Regions Basic ANP and FASID, the necessary measures for improving the efficiency and safety of air navigation in the Central Caribbean Region .

END

## ATTACHMENT A

### CONCLUSIONS AND RECOMMENDATIONS OF THE CAR/SAM/3 MEETING, RELATED WITH THE PLANNING AND IMPLEMENTATION IN MET FIELD REQUIRING FOLLOW-UP ACTION BY THE STATES

**Recommendation 7/6 — Requirements and implementation of basic synoptic observations for aviation**

That ICAO inform WMO that:

- a) with respect to the basic synoptic meteorological observation networks for the CAR/SAM Regions, the relevant parts of the current regional synoptic networks developed by the WMO Regional Associations III (South America) and IV (North and Central America), if fully implemented, would satisfactorily meet the requirements of international civil aviation in the regions; and
- b) difficulties continue to be reported due to the irregular availability of basic synoptic data in some parts of the CAR/SAM Regions and that this can have an adverse effect on the preparation of forecasts for aviation. In particular, the level of implementation of the 06 UTC surface observations and of the 00 UTC upper-air observations should be brought to the level of other main synoptic hours.

(The Council approved the Recommendation)

**Recommendation 7/8 — World area forecast system: ISCS/1 user table — FASID Table MET 7**

That FASID Table MET 7 given at Appendix B to the report on Agenda Item 7 be included, together with the relevant explanations, in Part VI — Meteorology of the CAR/SAM FASID.

*Note. — The proposed explanations are included in Part VI as paragraph 10.*

(The Council approved the Recommendation)

**Recommendation 7/9 — World area forecast system: responsibilities of WAFCs— FASID Table MET 6**

That FASID Table MET 6 and associated FASID Charts MET 4, MET 5 and MET 6 given at Appendix B to the report on Agenda Item 7 be included, together with the relevant explanations, in Part VI — Meteorology of the CAR/SAM FASID.

*Note. — The proposed explanations are included in Part VI as paragraph 9.*

(The Council approved the Recommendation)

**Conclusion 7/11 — List of CAR/SAM ATS/MET reporting points**

That,

- a) the ICAO regional offices concerned forward to States and international organizations in the CAR/SAM Regions the third edition of the list of ATS/MET reporting points which is given in Appendix C to the report on Agenda Item 7, amended to take account, as necessary, of changes to the ATS routes developed by the meeting;
- b) the ICAO regional offices concerned update the list annually based upon comments received from States and operators; and
- c) States publish, under GEN 3.5.6 — *Aircraft reports* of their aeronautical information publication (AIP), those ATS/MET reporting points from the list relevant to the flight information regions for which they are responsible.

(The ANC approved the Recommendation)

**Recommendation 7/12 — Improvement in the application of air-reporting procedures by voice communications**

That States undertake a review of the existing local arrangements concerning procedures for air reporting by voice communications, made between the operational units and airline operators, to ensure that:

- a) pilots are advised at their MET and/or AIS briefing prior to departure, of the ATS/MET reporting points along the whole route to be flown up to the next landing;
- b) operational staff are made fully aware of the importance of both routine and special air-reports and of their immediate transmission to the associated MWO; and

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- c) MWOs disseminate air-reports received to WAFCs (and appropriate RAFCs), and other meteorological offices in accordance with regional meteorological procedures, paragraph 4.2.

(The ANC noted the Recommendation)

**Recommendation 13/7 - Implementation of meteorological facilities and services**

That, States implement:

- a) aeronautical meteorological offices or specific facilities and services thereof given in FASID Tables MET 1A, 1B and 3 Parts I and II, as well as exchanges of OPMET data to cater for current flight operations given in FASID Tables MET 2 and 2A and the regional meteorological procedures related to the provision of facilities and services and the exchange of OPMET information as soon as possible following Council approval of the relevant recommendations of the meeting; and
- b) those offices or specific facilities and services, and OPMET exchanges related to future operations coincidentally with the start of these operations.

(The ANC approved the Recommendation)

**Recommendation 13/8 - Improvements in the implementation of CAR/SAM aeronautical MET offices**

That:

- a) States:
  - 1) give the same priority to the implementation of aeronautical MET services as is given to other essential air navigation services;
  - 2) ensure that urgent attention be paid to the quality and timeliness of aerodrome meteorological observations and, in particular, to the accuracy of information critical to flight safety, such as surface wind and pressure provided for landing and take-off;
  - 3) in this implementation process, make full use of services available through technical cooperation programmes and projects to realize the required training of aeronautical meteorological personnel including, *inter alia* forecasters, assistants and maintenance technicians, at all levels and the acquisition of the equipment needed to provide the required aeronautical meteorological information, in accordance with the regional air navigation plan; and

- b) ICAO Regional Offices concerned continue to monitor, as appropriate, the implementation of CAR/SAM aeronautical MET offices and especially equipment and services critical to flight safety, maintain a list of shortcomings and deficiencies occurring in the MET field in sufficient detail to permit identification of the specific problem, present status reports to the GREPECAS, and exchange the relevant information with the WMO Regional Office for the Americas.

*Note:— A list of services and equipment at aeronautical MET offices which are regarded as particularly critical for flight safety is provided in Appendix C to the report on this agenda item.*

(The Council approved the Recommendation)

**Recommendation 13/12 - Implementation of existing air-reporting procedures**

That States should continue to emphasize the implementation of existing air-reporting procedures while coordinating the smooth implementation of automated air reporting by data link.

(The ANC noted the Recommendation)

**Recommendation 13/14 - Guide on the preparation and issuance of SIGMET messages**

That,

- a) the ICAO Regional Offices prepare and forward to all CAR/SAM States revised editions of the SIGMET guides, to take account, as necessary, of Amendment 72 to Annex 3; and
- b) CAR/SAM States, upon receipt of the guide, take steps to ensure that forecasters at their meteorological watch offices make full use of the SIGMET guide in the preparation and dissemination of SIGMETs.

(The ANC approved the Recommendation)

**Recommendation 13/17 - Training for new meteorological codes**

That, States be encouraged to ensure that all staff concerned continue to receive training in the new coding procedures for the METAR, SPECI and TAF codes based on Amendments 69, 70 and 71 to Annex 3, with applicability dates 1 July 1993, 1 January 1996 and 5 November 1998, respectively.

(The ANC approved the Recommendation)



**Recommendation 13/19 - Identification and assessment of air navigation shortcomings**

That:

- a) users of aeronautical facilities and services, in accordance with the methodology approved by the Council, periodically notify States and the corresponding ICAO regional offices on possible shortcomings or deficiencies that have been identified;
- b) the ICAO regional offices enhance the mechanism for accurately updating the list of shortcomings and deficiencies of air navigation facilities and services and regularly bringing the information to the attention of the States for action; and
- c) States take immediate action to eradicate shortcomings and deficiencies related to them.

(The ANC approved Items a) and b), and the Council approved item c) of the Recommendation)