



Sixth Meeting of CNS/MET Sub-Group of APANPIRG

Bangkok, Thailand, 15 – 19 July 2002

Agenda Item 10a): Review implementation of the ISCS and SADIS

REVIEW OF THE SADISOPSG/7 REPORT

(Presented by the Secretariat)

SUMMARY

This paper presents the executive summary of the report of the seventh meeting of the SADISOPSG. Information on some of the conclusions formulated by the SADISOPSG/7 is provided in the paper for consideration by the meeting.

1. Introduction

1.1 The seventh meeting of the SADIS Operations Group (SADISOPSG) was held in the Middle East (MID) Regional Office, Cairo, 9 to 13 June 2002. The meeting was attended by 31 experts from nine States, the focal point of the EUR OPMET Bulletin Management Group (BMG) and three international organizations (the Agency for the Safety of Aerial Navigation in Africa and Madagascar (ASECNA), the International Air Transport Association (IATA) and the World Meteorological Organization (WMO)).

2. Discussions

2.1 The executive summary of the SADISOPSG/7 report is provided in Attachment 1 to this paper. It should be noted that though there are no formal draft conclusions to be tabled by the PIRGs, some conclusions will involve correspondence with the States, e.g.:

- a) amendment proposal to Annex 1 to the SADIS User Guide developed by IATA; this proposal would be circulated to States concerned for approval;
- b) information prepared by the provider State on the administrative messages will be circulated to all user States and focal points seeking their views on the content and the optimum means of transmission;
- c) information about the need for the update of encoding/decoding software by SADIS users in order to be able to display the SIGWX forecasts in the BUFR code;
- d) information to SADIS users about the types of SADIS receiving stations which have become or will soon become obsolete.

OPMET flow

2.2. It should be noted that the meeting agreed that three WAFC charts issued in T4 format stated as requirements by the PIRGs (i.e. area J over the Antarctic, area L to cover the new polar air routes and area M to cover the Northern Pacific), not yet on the SADIS, should be included on the broadcast. Their inclusion would be facilitated by the fact that the demand on bandwidth would be compensated by the removal of two national charts (i.e. a SWM chart issued by Australia and a SWH chart issued Kenya) from the SADIS broadcast.

Development of SADIS

2.3 The meeting may wish to review the information provided in the Executive Summary on current and planned developments of SADIS that include among other things:

- a) plans for a complementary second SADIS carrier to be uplinked from Whitehill; and
- b) introduction of the Interned-based SADIS back-up service.

SADIS strategic assessment tables

2.4 The content and format of the SADIS strategic assessment tables have been reviewed. It is expected that the PIRGs would have to update the estimated data volumes for the period 2003 – 2006.

SADIS cost recovery

2.4 It was reported that some 19 States had not yet paid for the SADIS service provided to them in 2001 and that this represented a shortfall of some 23 per cent of due payments. Reluctantly, in accordance with the decisions made by the relevant ICAO bodies, the provider State would be making arrangements to switch off the SADIS service in July 2002 in the States whose cost shares for 2001 remained unpaid.

3. **Action by the meeting**

3.1 The meeting is invited to :

- a) review the attached SADISOPSG/7 Executive Summary Report; and
- b) note the progress in the development and implementation of the SADIS service.

SEVENTH MEETING
SADIS OPERATIONS GROUP
(Cairo, Egypt, 9 to 13 June 2002)

EXECUTIVE SUMMARY

1. Introduction

1.1 The seventh meeting of the SADIS Operations Group (SADISOPSG) was held in the Middle East (MID) Regional Office, Cairo, 9 to 13 June 2002. The meeting was attended by 31 experts from nine States, the focal point of the EUR OPMET Bulletin Management Group (BMG) and three international organizations (the Agency for the Safety of Aerial Navigation in Africa and Madagascar (ASECNA), the International Air Transport Association (IATA) and the World Meteorological Organization (WMO)).

1.2 Mr. T.J. Potgieter, the member from South Africa, was Chairman of the meeting.

2. Annual statement of SADIS operational efficacy and update of SADIS inventory

2.1 The group reviewed the operation of SADIS during 2001/2002 based on responses from fifty-eight States to the annual questionnaire and the annual management report from the SADIS provider States. The group concluded (Conclusion 7/4) that the SADIS broadcast had continued to meet the operational requirements during the period under review. As is customary, this statement would be sent to the Chairman of the SADIS Cost Recovery Administrative Group (SCRAG). With regard to the format of the analysis used by the SADIS provider State the group considered that no major changes were required (Decision 7/2).

2.2 Concerning the detailed results of the analysis, the group was encouraged by the fact that the number of reports of serious difficulties with SADIS very small aperture terminal (VSAT) had remained fairly low over the past year. However, the group felt that more information about administrative messages should be provided (Conclusion 7/3).

2.3 The group reviewed the SADIS inventory 2002/2003 to take account of the complementary second SADIS carrier. The updated inventory would be forwarded to the Chairman of SCRAG (Conclusion 7/5).

2.4 With regard to the SADIS implementation, the group noted that in spite of the introduction of the mandatory cost recovery, no marked decrease in the number of systems in operation had occurred in 2001/2002, with eighty-eight Contracting States now operating a total of 129 SADIS VSAT receivers.

3. Maintenance of the current SADIS broadcast and organization of the flow of OPMET message traffic

3.1 The group reviewed the current Annex 1 to the SADIS User Guide. In this context, the group endorsed an amendment proposal to Annex 1 developed by IATA. This proposal would be circulated to States concerned for approval (Conclusion 7/6).

3.2 When addressing the European Air Navigation Planning Group (EANPG) Conclusion 43/25 calling for ICAO to consider, subject to bandwidth constraints, the inclusion of AIRMETs and GAMETs in the dissemination of OPMET data via SADIS to satisfy the requirements of pre-flight planning and flight information service for low-level flight, an assessment was presented to the group. It showed that due to the fact that only AIRMETs and GAMETs subject to a stated aeronautical requirement in ICAO Regional Plans would be appropriate for inclusion on the SADIS broadcast, the bandwidth would not be an issue. Under these circumstances, the group agreed that the SADIS provider State should include these products on the SADIS broadcast (Conclusion 7/8).

3.3 The group agreed that three world area forecast system (WAFS) charts issued in T4 format stated as requirements by the PIRGs (i.e. area J over the Antarctic, area L to cover the new polar air routes and area M to cover the Northern Pacific), not yet on the SADIS, should be included on the broadcast. Their inclusion would be facilitated by the fact that the demand on bandwidth would be compensated by the removal of two national charts (i.e. a SWM chart issued by Australia and a SWH chart issued Kenya) from the SADIS broadcast (Conclusion 7/9).

4. Development of the SADIS

4.1 The discussions of the group were based on reports from the Rapporteurs of its Two-way Operational Clearance Team, Gateway Working Group and Strategic Assessment Team.

Enhanced two-way capability

4.2 The group was pleased to note the fourth two-way SADIS station had been successfully installed in Dakar in May. Subsequent to the installation, trials involving all the four two-way stations (Dakar, London, Pretoria and Zurich) had been carried out during a three-week period in May 2002. The initial results indicated that improvements in timeliness and data availability had been achieved; however, in order to draw the definitive conclusions, results from a final analysis would still have to awaited. The completion of the final analysis without delay was called for; thereafter the Two-way Clearance Team was authorized by the group to declare the two-way system operational. (Conclusion 7/10)

4.3 With regard to the fifth two-way station, ICAO was requested to make every effort with the Kenyan authorities in view of its implementation in Nairobi by December 2002. It was considered that the likelihood of the expansion of the enhanced two-way programme was low since SADIS users had expressed little interest in two-way systems in view of their high costs and limited usefulness. Under these circumstances, the group agreed that there would be no need to carry on with the two-way programme beyond the lifetime of the current systems. It was agreed that SADISOPSG Technical Developments Team would investigate possibilities of using alternative systems which could improve OPMET data collection (Conclusion 7/11).

SADIS Gateway Function

4.4 The group was informed on the progress made by the SADISOPSG Gateway Working Group in the implementation of the SADIS gateway function. The implementation of operational service was foreseen in September 2003. In this context, the group reviewed the SADIS gateway high-level technical requirements and the SADIS gateway operations handbook.

Strategic assessment of SADIS requirements

4.5 The Rapporteur of the SADISOPSG Strategic Assessment Team provided a report on their activities. The group reviewed the tables included in the report and concluded that the completed SADIS strategic assessment tables should form the basis for the future development of the SADIS (Conclusion 7/12).

Decoding WAFS data in the GRIB and BUFR code forms

4.6 With regard to the use of the WMO BUFR code form for the transmission of WAFS SIGWX forecasts, the SADIS provider State informed the group about the progress made in the implementation of BUFR encoded SIGWX products; it was expected that the distribution of these forecasts in the BUFR code form would be fully operational by the end of 2002. Concerning the implementation of WAFS forecasts in the BUFR and GRIB code forms, the SADIS provider State emphasized the importance to the SADIS users of obtaining the latest versions of the BUFR and GRIB visualisation software (Conclusion 7/13).

Complementary second SADIS carrier

4.7 To ensure that SADIS stays at the forefront of satellite technology and to further standardize receiving hardware, the SADIS provider State proposed that a complementary second SADIS carrier would be uplinked from Whitehill using a combination of a new-type modulation (i.e. Quad Phase Shift Key (QPSK) and Viterbi or Turbo coding). This proposal was considered to constitute a welcome transition towards the use of state-of-the-art, off-the-shelf satellite receivers, which would also break the current monopoly. It was agreed that trials with two test sites under the SADIS footprint would be undertaken towards the end of 2002 to confirm the effectiveness of a second SADIS carrier in an operational environment. A report on these trials was expected to be presented to the SADISOPSG/8 Meeting which would assess the desirability of the operational implementation of the second SADIS carrier. The trials with the second SADIS carrier would affect costs; therefore, the SADIS inventory was amended accordingly (Conclusion 7/14).

4.8 Certain older SADIS receiving station models had become, or would soon become, obsolete since some of the components of these stations could no longer be repaired. Therefore, the group requested that ICAO, based on the technical information to be received from the provider State, informs SADIS users about the types of SADIS receiving stations which were expected to become obsolete (Conclusion 7/15).

SADIS cost recovery

4.9 It was noted that the SADIS cost recovery agreement enabled the provider State to switch off the SADIS service in any State that failed to pay its cost share under the mandatory cost recovery scheme. The group noted that some 19 States had not yet paid for the SADIS service provided to them in 2001 and that this represented a shortfall of some 23 per cent of due payments. Reluctantly, in accordance with the decisions made by the relevant ICAO bodies, the provider State would be making arrangements to switch off the SADIS service in July 2002 in the States whose cost shares for 2001 remained unpaid. The group noted that affected States would be so informed and that it would be the responsibility of the State concerned to ensure that adequate alternative arrangements were made for obtaining the necessary data and products (Conclusion 7/16). The SADIS service could be re-instated if and when overdue payments were received.

SADIS Internet-based FTP/HTTP service for back-up

4.10 With regard to the development of an Internet-based back-up service, it was recalled that this service would be provided only to States and users authorized to receive SADIS or ISCS broadcasts. No additional costs would be involved in the standard FTP service, which was fully operational since May 2002. The value-added HTTP premium service would be launched later this year. In order to extract products from the Internet, a standard visualization software would be required. With such a software, a seamless transition between the SADIS receiver and the Internet could be achieved.

5. SADIS User Guide and amendment process

5.1 It was noted that the second edition of the guide had been published in December 2001 and the Arabic, English, Russian and Spanish versions had since been distributed to States. The French version was expected to be completed soon and distributed to States in June 2002. The SADIS User Guide had also been placed on the ICAO Web site at: http://www.icao.int/cgi/goto_anb.pl?met_

6. Future work programme

6.1 The group reviewed and updated its work programme and executive summaries for the tasks in the work programme.

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