



International Civil Aviation Organization

Eight Meeting of the Communications/Navigation/Surveillance and Meteorology Sub-Group (CNS/MET/SG/8) of APANPIRG

Bangkok, Thailand, 12 – 16 July 2004

**Agenda Item 8: Review of the implementation of WAFS
1) implementation of ISCS and SADIS**

REVIEW OF THE SADISOPSG/9 REPORT

(Presented by Secretariat)

SUMMARY

This paper presents the executive summary of the report of the SADISOPSG/9 meeting with emphasize on the Conclusions relevant to ASIA/PAC regions.

1 INTRODUCTION

1.1 The ninth meeting of the SADIS Operations Group (SADISOPSG) was held in the Western and Central African (WACAF) Regional Office, Dakar, 1 to 4 June 2004. The meeting was attended by 24 experts from ten States, the focal point of the EUR OPMET Bulletin Management Group (BMG) and three international organizations – ASECNA, IATA and WMO. The meeting formulated some draft conclusion to be presented to the PIRGs for endorsement, as discussed below.

2 DISCUSSION

2.1 The executive summary of the report of the ninth meeting of the SADISOPSG is provided in Attachment 1. It may be noted that the SADISOPSG/9 Meeting formulated one draft conclusion to the attention of PIRGs served by SADIS, related to the SADIS Internet-based FTP service. Furthermore, the APANPIRG is expected to update the SADIS strategic assessment tables, covered by a separate WP.

2.2 The meeting will recall that the SADIS Provider State offers a fully operational SADIS Internet-based FTP service to all authorized SADIS or International Satellite Communication System (ISCS) users. The meeting will be aware that the FTP service was introduced as a **back-up** to the SADIS broadcast and that, until now, the back-up service is provided free-of-charge to the authorized SADIS users. The SADISOPSG is of the opinion that the time has come to include the components of the SADIS FTP service in the SADIS inventory, with the understanding that the users of the FTP service would continue to be considered SADIS users and would have to contribute to the mandatory cost recovery. The meeting may wish to note that the SADIS Provider State would not recover any of the initial capital costs associated with establishing the FTP service; only the costs associated with providing an on-going operational service are proposed for inclusion in the SADIS inventory, as of 1 July 2005. With the proposed change, the management of the SADIS FTP service would become part of the tasks of the SADISOPSG, and the SADIS users would be in a position to impact the development of the SADIS FTP service.

2.3 In order to formalize the role of the SADIS Internet-based FTP service, the CNS/MET Sub-group is invited to formulate the following draft conclusion for consideration by APANPIRG/15 meeting:

Draft Conclusion 8/xx — SADIS Internet-based FTP Service

That, in parallel with the satellite broadcast, the SADIS Provider State be invited, as of 1 July 2005, to make WAFS forecasts and OPMET data available, as a primary component of the SADIS service, in accordance with the *SADIS User Guide*, through the Internet-based FTP service.

Note 1.— The development and management of this service will be overseen by the SADISOPSG and its work programme will be amended accordingly.

Note 2.— The SADIS Cost Recovery Administrative Group (SCRAG) has been informed about the planned date of implementation.

3. ACTION BY THE MEETING

3.1 The meeting is invited to:

- a) review the executive summary of the SADISOPSG/9 report; and
- b) agree on the proposed draft conclusion in para 2.3.

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APPENDIX A
NINTH MEETING
SADIS OPERATIONS GROUP
(Dakar, Senegal, 1 to 4 June 2004)
EXECUTIVE SUMMARY¹

1. INTRODUCTION

1.1 The ninth meeting of the SADIS Operations Group (SADISOPSG) was held in the Western and Central African (WACAF) Regional Office, Dakar, 1 to 4 June 2004. The meeting was attended by 24 experts from ten States, the representative of 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 The Chairman, Mr. T. J. Potgieter, presided over the meeting throughout its duration.

2. FOLLOW-UP OF SADISOPSG/8 CONCLUSIONS AND DECISIONS

2.1 With regard to the detailed follow-up of the conclusions, decisions and draft conclusions, the group noted that action had been completed on all of the issues except for Conclusion 8/18 c) which would be completed, as expected, after the SADISOPSG/9 Meeting (Decision 9/1).

3. OPERATION OF THE SADIS

3.1 With regard to the SADIS operational focal points, the group concurred that the focal points provided useful contacts for the SADIS Provider State and the ICAO regional offices to resolve operational issues and agreed that ICAO should consult all of the SADIS user States to make sure that the information included remained current and that the e-mail addresses were included, if available (Conclusion 9/2).

3.2 The group reviewed the operation of SADIS during 2003/2004 based on responses from 53 States to the annual questionnaire and the annual management report from the SADIS Provider State. The responses received showed that the number of reports of serious difficulties with the SADIS very small aperture terminal (VSAT) had remained low over the past year. However, the group expressed some concern about fundamental problems persisting in few States (e.g. total lack of reception). It was agreed that, based on the replies to the questionnaire, the SADIS Provider State would contact these States and users in order to propose solutions, and report back to the SADISOPSG as part of the report of the SADIS Operational Efficacy Assessment Team (Conclusion 9/4). The group concluded that the SADIS broadcast had continued to meet the operational requirements during the period under review (Conclusion 9/6). This statement would be sent to the Chairman of the SADIS Cost Recovery Administrative Group (SCRAG). With regard to the format of the questionnaire, the group considered that no changes thereto were required, except for the time period to be considered (the cut-off date changed to February to ensure that the results were available in time for the SADISOPSG meetings) and the inclusion of a question related to the ability of the SADIS users to convert the WAFS SIGWX forecasts from the BUFR code form into charts (Decision 9/5).

¹The full report is available at the following Web site: www.icao.int/anb/sadisopsg

3.3 To improve the timeliness of the analysis of the replies to the questionnaires, the group agreed that, in the future, there was no need to send the completed questionnaires to the SADIS Operational Efficacy Assessment Team since all relevant information was included in the tabulated format prepared by the Secretariat (Decision 9/3).

3.4 The group reviewed the SADIS inventory 2004/2005. In order to ensure that SADIS continued to meet the approved operational requirements, proposals for additional amendments to the inventory had been made by the SADIS Provider State. These included the FTP service available on the Internet. The updated inventory would be forwarded to the Chairman of the SCRAG (Conclusion 9/7).

3.5 With regard to the SADIS implementation, the group noted that the number of States and users had remained unchanged during 2003/2004 with eighty-six Contracting States now operating a total of 129 SADIS VSAT receivers. It was concluded that the potential growth had ceased due to the temporary cessation in the supply of new receivers and the fact that SADIS could now be considered as a mature system.

4. CONTENT OF THE SADIS BROADCAST

4.1 OPMET data

4.1.1 The group noted that the performance indices were base-lined in relation to the current Annex 1 to the *SADIS User Guide* (SUG). In view of their usefulness and relevance to SADIS users, the group agreed that the OPMET performance indices, together with the list of missing OPMET information (i.e. information included in Annex 1 to the SUG but not broadcast on the SADIS), should be forwarded to States concerned for appropriate follow-up (Conclusion 9/8).

4.1.2 Draft amendments to Annex 1 were brought forward by IATA which suggested, inter alia, that non-AOP aerodromes, for which no data was available, should be considered for deletion. The group concurred that, with these deletions, Annex 1 would better reflect reality. With regard to additional OPMET data requested by IATA, the member from the United States indicated that his State was prepared to provide all the OPMET information from the non-AOP aerodromes requested. The Secretariat was instructed to amend Annex 1 accordingly (Conclusion 9/9).

4.1.3 With regard to the format of Annex 1, it was agreed that consideration should be given to amend the format to render it compatible with a database-oriented approach to facilitate the updates of Annexes 2 and 3 to the SUG (Conclusion 9/10).

4.2 WAFS forecasts

4.2.1 The group noted that Annex 4, similar to all Annexes to the SUG, was currently kept up-to-date on the SADISOPSG website to correspond, as far as possible, to the actual content of the SADIS broadcast; it was not proposed for inclusion in the hard copy version of the next edition of the SUG. The group endorsed Annex 4 as included on the website (Decision 9/11).

5. DEVELOPMENT OF THE SADIS

5.1 Under this agenda item, the group reviewed progress on the future developments of the SADIS.

5.2 Report of the Gateway Development Team

5.2.1 In connection with the report by the Rapporteur of the SADISOPSG Gateway Development Team, the group re-confirmed the need for real-time monitoring as currently carried out on the SADIS gateway and agreed that emphasis should continue to be placed on problem areas. The

group agreed that, in order to maintain and improve the operation of the SADIS gateway, three specific issues should be pursued (Conclusion 9/12 and Decision 9/13);

- a) the development of regional guidance which would list the WMO abbreviated headers and ATS unit indicators associated with all SIGMET that may be generated within a region, by the ICAO regional offices concerned;
- b) the modification of the validation of SIGMET by the SADIS Provider State, in light of Amendment 73 to Annex 3; and
- c) the investigation of the impact of the introduction of BUFR-coded METAR/SPECI and TAF on the SADIS gateway operations by the SADIS Gateway Development Team.

5.3 Report of the Strategic Assessment Team

5.3.1 Based on an update provided by the Rapporteur of the SADISOPSG Strategic Assessment Team, the group reviewed the content and format of the strategic assessment tables and requested that ICAO forward copies of the tables to the PIRGs concerned so that they may form the basis for the next regional update in respect of future SADIS requirements.(Conclusion 9/14).

5.4 Report of the Technical Developments Team

5.4.1 With regard to the implementation of the SADIS second-generation broadcast (SADIS 2G), the group agreed that the dual operations of the SADIS first-generation broadcast (SADIS 1G) and SADIS 2G should begin on 1 September 2004 and that the SADIS 1G should be terminated on 31 December 2008. This would allow a long enough transition period (i.e. more than four years) for all SADIS user States whilst it would minimize the additional costs related to the operation of a dual broadcast at the system level. The group agreed that, in order to facilitate the implementation of the SADIS 2G, the SCRAG and the States concerned should be informed about the implementation of the SADIS 2G and the expected termination of the SADIS 1G (Conclusion 9/15).

5.5 Report of the workstation software team

5.5.1 The group noted the report by the Rapporteur of the SADISOPSG Workstation Software Team which indicated that there would be a need to fund the upgrade of at least 21 receivers and workstations operated by the least developed countries. Since funding via the SCRAG mechanism had been ruled out, the WMO VCP was considered to be the only viable option forward, provided sufficient donors were forthcoming. In order to promote this option, the group agreed that WMO should encourage donor States to contribute to the VCP for upgrading SADIS workstations. (Conclusion 9/16).

5.6 Visualization software for GRIB- and BUFR-coded WAFS forecasts

5.6.1 The group noted with concern that, currently only one software vendor fully met the criteria established for visualization software and that the shortcomings of some software packages could have serious safety implications (e.g. the incapacity to depict tropical cyclones). The group was, however, encouraged by the fact that three other vendors were getting close to meeting the criteria. The group agreed that States and SADIS users should be informed by ICAO of those software packages that may be considered compliant while drawing their attention to the fact that a number of packages continued to exhibit serious shortcomings. Furthermore, in view of cost implications related to future software changes, States were invited to make suitable arrangements with software vendors for obtaining subsequent software updates under favourable conditions (Conclusion 9/17).

5.6.2 It was noted that the progress in developing visualization software for BUFR-coded WAFS SIGWX forecasts, compatible with Annex 3 provisions, had been slower than expected.

Therefore, the group agreed, in principle, that the SIGWX forecasts in chart form should continue to be made available to SADIS users for a limited period of time beyond 1 July 2005. Since the future of SIGWX forecasts in chart form beyond 1 July 2005 was a global issue, the detailed arrangements should be addressed in a global context by the WAFSOPSG. The group emphasized that the solution should have minimum cost implications and should be of a temporary nature (Conclusion 9/18).

5.7 Enhanced two-way capability

5.7.1 With regard to the first-generation two-way programme (SADIS 1G+), the group agreed that, the only remaining action was to inform the SADIS Cost Recovery Administrative Group (SCRAG) that the SADIS 1G+ had been discontinued as of 1 January 2004. (Conclusion 9/19).

5.7.2 Concerning the second generation two-way programme (SADIS 2G+), the initial results of the work of the ad hoc working group indicated that potential cost savings to the airlines of increased OPMET data availability could be significant. The availability of relatively inexpensive, commercial, off-the-shelf hardware appeared to make such a programme viable. However, the report identified some issues which made the production of a fully costed business case premature at this time. The group agreed that the ad hoc working group should undertake a further investigation in order to produce a full business case, which should be presented to the SADISOPSG/10 Meeting to minimize the period of uncertainty about the SADIS 2G+ and, to avoid that SADIS 2G equipment already purchased would have to be later upgraded (Conclusion 9/20).

5.8 Internet-based FTP service

5.8.1 The group was of the opinion that the time had come to include the components of the SADIS FTP service in the SADIS inventory, with the understanding that the users of the FTP service would continue to be considered SADIS users and would have to contribute to the mandatory cost recovery. The SADIS Provider State would not recover any of the initial capital costs associated with establishing the FTP service; only the costs associated with providing an on-going operational service were proposed for inclusion in the SADIS inventory, as of 1 July 2005. With the proposed change, the management of the SADIS FTP service would become part of the tasks of the SADISOPSG, and the SADIS users would be in a position to impact the development of the SADIS FTP service. It was noted that, prior to the formalization of the SADIS FTP service, the PIRGs concerned would have to be consulted (the (draft) Conclusion refers).

5.9 Use of SADIS to carry ASHTAMs and NOTAMs for volcanic ash

5.9.1 The group noted that the recent IAVWOPSG had confirmed the need for ASHTAM and NOTAM for volcanic ash on the SADIS and ISCS broadcasts and had invited the SADISOPSG to coordinate their inclusion accordingly. It was noted that, to implement this requirement, Annex 15 would have to be amended and that the amendment would not become applicable until November 2006. The group nevertheless agreed that the SADIS Provider State should start making arrangements to ensure that the SADIS gateway would be in a position to receive ASHTAMs and NOTAMs for volcanic ash, and was invited to present a proposal for an implementation plan at the SADISOPSG/10 Meeting (Conclusion 9/21).

6. SADIS USER GUIDE

6.1 The group reviewed the draft third edition of the *SADIS User Guide* (SUG) which had been updated by the SADIS Provider State, in coordination with the Secretariat. The draft third edition of the SUG incorporated all of the changes that had taken place, including those related to Amendment 73 to Annex 3. The Secretariat was tasked to place the updated third edition of the SUG on the SADISOPSG website. Furthermore, the SADIS Provider States would develop a new chapter related to the SADIS 2G which would be completed by the SADISOPSG/10 Meeting (Conclusion 9/22).

7. **FUTURE WORK PROGRAMME**

7.1 The group reviewed and updated its work programme and executive summaries for the tasks in the work programme (Decision 9/23).
