



**METEOROLOGY PANEL**



**Third Meeting  
of the Working Group of the Meteorology Panel  
Meteorological Operations Group (METP WG-MOG/3) –  
Work Stream 1 and 2: SADIS/WIFS-WAFS**

*Gatwick, United Kingdom, 13 to 16 June 2016*

**INTERNATIONAL CIVIL AVIATION ORGANIZATION**

## **LIST OF METP WG-MOG/3– SADIS/WIFS ACTIONS**

(Actions for the meeting)

**Action agreed 3/1: Annual statement of operational efficacy of SADIS 2015/2016**

**Action agreed 3/2: 2016/2017 SADIS operational efficacy questionnaire**

**Action agreed 3/4: SADIS Inventory 2016-2017**

**Action agreed 3/5: Sixth Edition of the SADIS User Guide (Part 1 and Part 2)**

**Action agreed 3/6: OPMET data for non-AOP aerodromes**

**Action agreed 3/7: Dissemination of MET information from AOP aerodromes**

**Action agreed 3/8: Cessation of SADIS-2G broadcasts**

## **LIST OF WG-MOG/3 –SADIS/WIFS DECISIONS**

**Decision 3/3: Secure SADIS FTP Bandwidth**

## **AGENDA ITEM 1: OPENING OF THE MEETING**

1.1 The third meeting of the MET Operations Group (MOG/3) Work stream 1 and 2: SADIS/WIFS-WAFS took place in Gatwick, United Kingdom, at the premises of the Civil Aviation Authority (CAA) from 13 to 16 June 2016.

1.2 The meeting was opened at 0900 hours by Nigel Gait (United Kingdom) who chaired the meeting in the absence of the Working Group Rapporteur Mr. Colin Hord (United Kingdom), and welcomed the participants and stressed the importance of the main tasks of the group and its role in supporting the work of the METP. He was assisted by Mr. Raul Romero, Technical Officer, Airspace Management and Optimization Section, ICAO Headquarters.

## **AGENDA ITEM 2: INTRODUCTION**

### **2.1 Adoption of the Agenda.**

2.1.1 The agenda proposed was adopted.

### **2.2 Working arrangements.**

2.2.1 The meeting adopted appropriate working arrangements.

### **2.3 Attendance.**

2.3.1 The list of participants is provided in Appendix A.

## **AGENDA ITEM 3: MATTERS RELATED TO SADIS**

### **3.1 Status of outstanding SADISOPSG Actions**

3.1.1 The meeting noted a report of the status of conclusions and recommendations relating to SADIS (SN/08 refers) Presented by the SADIS Provider. In this regard, after review, the meeting congratulated the SADIS Provider State for the satisfactory completion of a number of conclusions and recommendations relating to SADIS and for the working papers presented separately to permit the group to consider future requirements and actions.

### **3.2 Operation of SADIS for Cost Recovery purposes**

3.2.1 SADIS Management Report-2015-2016.

3.2.1.1 The meeting noted that in accordance with the former SADIS Operations Group (SADISOPSG) Conclusion 7/1 and SADISOPSG Decision 18/3, the SADIS Provider State and SADIS Gateway providers were invited to submit an annual SADIS Management Report for review by the SADIS Operations Group. Following the disbandment of the SADISOPSG in 2015, the SADIS Management Reports are presented to the SADIS component of meetings of the Meteorological Operations Group to the Meteorological Panel (METP WG-MOG).

3.2.1.2 In this regard the meeting was pleased to review the SADIS Management Report 2015-2016. The meeting noted its content and expressed its compliments to the SADIS Provider State and SADIS Gateway providers for providing such detailed and informative management report. It was further commented that the group is very well run and as such potentially provides a good template for the governance of future Met provision, for example in relation to SWIM for which it was mentioned there has been no consideration of governance to date.

3.2.1.3 It was noted that all ICAO documents should have a SN or IP number and the group agreed that future reports will be referenced accordingly.

### 3.2.2 Operational efficacy of SADIS-2015-2016

3.2.2.1 The attention of the meeting was drawn to SN/03, presented by the SADIS Provider State, related to operational efficacy assessment 2015/2016, and proposal for 2016/2017 operational efficacy questionnaire. In this regard the meeting noted that following the disbanding of the Satellite Distribution System Operations Group (SADISOPSG) the process of the completed efficacy questionnaire now consists of the Secretariat providing the results of the survey directly to the SADIS Provider State who in turn undertakes the analysis of the responses. Based on the responses received and noting the summary presented in SN/03 the meeting reiterated its satisfaction with the quality of SADIS service, which was considered “good” by a clear majority of users and since the number of States with serious difficulties with their Secure SADIS file transfer protocol (FTP) servers has remained small.

3.2.2.2 In light of the comments received, the meeting agreed that the Secure SADIS FTP service continued to meet the operational requirements during the period 2015/2016 and formulated the following conclusion:

**Action agreed 3/1 — Annual statement of operational efficacy of SADIS 2015/2016**

That the Rapporteur of the METP-WG/MOG be invited to inform the Chair of the SCRAG that the SADIS continued to meet the operational requirements during the period 2015/2016.

3.2.2.3 With regard to the 2016/2017 SADIS operational efficacy questionnaire, the meeting formulated the following decision:

**Decision 3/2 — 2016/2017 SADIS operational efficacy questionnaire**

That the questionnaire used in the 2016/2017 consultation with States/users on the operational efficacy of the SADIS be modified as proposed in Appendix B of SN/03.

3.2.2.4 The group reviewed SN/04 regarding the current capacity of the Secure SADIS FTP service, and discussed the need for changes to bandwidth. In this regard after appraisal of the meeting of the current Secure SADIS FTP download rates against capacity and consideration of feedback from users (SADIS Efficacy questionnaire 2015-2016) the meeting agreed that the current capacity is sufficient and that no changes are required. Therefore the meeting formulated the following decision:

**Decision 3/3 — Secure SADIS FTP Bandwidth**

That, the current Secure SADIS FTP bandwidth capacity (24Mbit/sec bursting 42Mbit/sec between SADIS Provider and its Internet Service Provider; with individual client connections limited to 2048Kbit/sec.) is considered sufficient, and that no changes are required. Post cessation of SADIS-2G, SADIS FTP bandwidth capacity will be monitored, and should there be evidence that users are experiencing issues the group will correspond electronically in order to re-consider the issue and if necessary, approve an increase in capacity before the next MOG.

### 3.2.3 SADIS Inventory

3.2.3.1 The group noted SN/05 which provided changes and updates to the SADIS inventory proposed by the SADIS Provider State for review and endorsement by the group. After review of the proposal the group agreed to formulate the following conclusion:

**Action agreed 3/4 — SADIS Inventory 2016-2017**

That, the Rapporteur of the METP-WG/MOG be invited to forward the updated SADIS inventory (given in Appendix to SN/05) to the Chair of SCRAG.

3.2.4 SADIS Implementation-2016

3.2.4.1 The SADIS Manager reminded the meeting that the Status of SADIS Implementation was published on the WG-MOG Webpages (<http://www.icao.int/airnavigation/METP/MOG/Pages/SADIS.aspx>)

3.2.5 Update of the SADIS User Guide

3.2.5.1 The meeting reviewed SN/01, presented by the SADIS Provider State, which proposed a significant update to the SADIS User Guide, primarily as a consequence of the cessation of the SADIS 2G service on 31 July 2016 and the re-definition of the SADIS acronym to mean 'Secure Aviation Data Information Service', effective 1 August 2016. In this regard the group noted that, due to the numerous changes proposed, it was necessary to consider the update to be a new 'edition', therefore making it the 'Sixth' such edition of the guide.

3.2.5.2 It was also noted that the SADIS Provider, following consultation with the SADIS Gateway Provider and the WIFS Provider, agreed to present the new SADIS User Guide as Part 1 (General and Administrative) and Part 2 (Technical). The meeting noted that SADIS Provider welcomes feedback and suggestions for further changes/updates to the SADIS User Guide. Notwithstanding the possibility of such additional changes proposed by the group, the meeting formulated the following draft Conclusion:

**Action agreed 3/5 — Sixth Edition of the SADIS User Guide (Part 1 and Part 2)**

That, the update to the SADIS User Guide, (included in Appendix to-SN/01), be endorsed for formal publication by 11/7/16.

*Note 1:- The updated guide will form two parts: 'Part 1 – General and Administrative' and 'Part 2 – Technical'.*

*Note 2:- As a substantial change to the preceding version, the updated guide will be considered to be a new 'Edition', namely the 'Sixth'.*

3.2.5.3 The group reviewed SN/06 regarding the update to the METAR/SPECI and TAF Requirements for International Distribution, including SADIS/WIFS, with the introduction of the electronic air navigation plan (eANP) MET Tables, presented by the Members from United Kingdom and France.

In this regard the meeting noted the change in monitoring process for OPMET data including that for the SADIS OPMET gateway due to the introduction by ICAO of the eANP MET Tables and the discontinuation of ICAO monitoring the non-AOP aerodrome meteorological information. The paper included a history on the provision of METAR/SPECI and TAF requirements in SADIS User Guide (SUG) Annex 1 and FASID Table MET 2A.

3.2.5.4 During the discussion the meeting noted that due to resource constraints including resources related to the inclusion of OPMET data in the eANP, the former FASID Table MET 2A hosted on the

ICAO website had not been updated since April 2014 which raised significant difficulty with OPMET monitoring against requirements.

3.2.5.3 The meeting noted that a teleconference on 28 January 2016 between ICAO HQ, ICAO Paris, the SADIS OPMET gateway provider, IATA and EUR Data Management Group (DMG) members, had discussed OPMET data requirements and ICAO functions (i.e. maintaining databases, monitoring). It was highlighted that from the ICAO perspective, OPMET deficiencies could only be considered for AOP aerodromes. It was made clear that ICAO has no authority over States for providing OPMET data for non-AOP aerodromes. IATA indicated that some additional MET (METAR, SPECI and TAF) information for some non-AOP aerodromes is requested mainly by IATA airlines (and sometimes directly by States) to support flight planning and operations. Considering this point, the meeting agreed that ICAO, in continuation as previously performed, will assist by informing States on user expressed needs for non AOP aerodrome MET information, and asking States if they are in a position to produce and exchange this information accordingly. ICAO will collect the States' answers and, in the case of a positive answer, will inform DMG who will maintain, subject to final agreement by DMG, a database of agreed non AOP aerodromes MET information to be exchanged in this regard. Therefore the group agreed on the following action:

**Action agreed 3/6 — OPMET data for non-AOP aerodromes**

That

- a) Graham and Patrick investigate if DMG is in a position to maintain a database of agreed non-AOP aerodromes MET information and report back to the WG-MOG; and,
- b) if the reply to a) above were positive, DMG in coordination with IATA and ICAO initiate follow-up action to keep updated the database of agreed non-AOP aerodromes MET information.

*Post Meeting Note: DMG convened on the 21<sup>st</sup> June 2016 and agreed to maintain the dataset of non-AOP aerodromes MET information that is being exchanged.*

3.2.5.4 With regard to the update of the current AOP database, the meeting noted that ICAO devoted resources (some of them currently charged to SADIS) to the Air Navigation Plan Table MET II-2 containing OPMET requirements for AOP aerodromes. In this regard the meeting noted that the information is provided by each ICAO Region and the proposal for Amendment of the Table MET II-2 is being processed and, with exception of the NAM Region, expected to be completed by the end of 2016.

3.2.5.5 The meeting was also informed of an exchange of correspondence between UK CAA, UK Air Navigation Commissioner and ICAO (AOI Section) with regard to what requirements were needed to list an aerodrome as AOP under ICAO regulations. In this regard the meeting noted the ICAO reply stated that a contracting State should list all aerodromes used for international operations- regardless if they are used for regular (destination) or alternates- in the ICAO regional air navigation plan. In view of the expected impact of the above statement about the definition of AOP aerodromes in the MET information distribution, the meeting agreed to look for clarification by the METP and formulated the following action agreed:

**Action agreed 3/7 – Dissemination of MET information from AOP aerodromes**

That the Rapporteur of the METP-WG/MOG be invited to prepare a WP, for the consideration by the METP/2 Meeting, detailing the issues related to the dissemination of MET information from AOP aerodromes and non-AOP aerodromes (as currently defined).

3.2.5.6 In a related issue the group noted SN/07, presented by the WIFS Provider State, regarding the addition of United States non-AOP OPMET data and the proposed international distribution of 'Remarks' as part of the METAR. In this regard the group noted that United States had received a request from IATA to add additional US Non-Aerodrome Operational Planning (Non-AOP) airports for global distribution on the World Area Forecast System File Service (WIFS). This request was reviewed and accepted by the US Meteorological (MET) Authority. With regard to the US inclusion of 'Remarks' as part of the METAR, for global dissemination in an ICAO system like the WIFS, since this is not a standard or recommended practice under Annex 3 - *Meteorological service for international Air Navigation*, the ICAO representative reiterated the convenience of filing a difference using the ICAO Electronic Filing of Differences (EFOD) system.

### **3.3 Development of the SADIS under METP and WGs**

#### **3.3.1 Impacts in relation to Amendment 77 of Annex 3**

3.3.1.1 After an oral exchange, the meeting noted that SADIS FTP will provide the additional WAFS gridded data as required by Amendment 77 of Annex 3.

#### **3.3.2 Review of MOG Terms of Reference in relation to SADIS**

3.3.2.1 The meeting noted SN/13, presented by the Rapporteur, regarding the current version of the Terms of Reference for the MET Operations Group.(WG-MOG) concerning SADIS. After review the meeting agreed that there was a need to introduce some changes to the current version. The updated version is shown in Appendix E to this report.

#### **3.3.3 Work Plan from METP/1 under WG-MOG**

3.3.3.1 Discussed together with 3.3.5.

#### **3.3.4 SADIS matters arising in relation to other MET groups**

3.3.4.1 SADIS and meteorological information exchange – WG-MIE – it was noted that Chris Tyson, Patrick Simon, Matt Strahan and Hans-Rudi Sonnabend had attended the last meeting and that there were no SADIS matters of direct interest which arose for discussion by the MOG.

3.3.4.2 SADIS and meteorological information and service development – WG-MISD – the group noted that there was nothing to report or discuss since the 2015 meeting.

3.3.4.3 SADIS and meteorological requirements and integration – WG-MRI- The group had a discussion regarding the development of a SADIS SWIM concept/demonstrator and it was suggested that the MOG should raise this issue to the METP and/or liaise with other WG's as appropriate.

3.3.5. Proposals from the SADIS Provider State and SADIS GATEWAY Provider State for consideration by appropriate WG under METP/2

3.3.5.1 With regard to this agenda item the meeting noted that in view of the expected cessation of SADIS 2G broadcasts on 31st July 2016 there was a need to report it to the METP and to update Job Card METP.008.01 Further development of the satellite distribution system for information relating to

air navigation (SADIS) accordingly. The meeting agreed to include it in a working paper for the upcoming METP/2 Meeting in October and formulated the following action agreed:

**Action agreed 3/8 – Cessation of SADIS-2G broadcasts**

That the Rapporteur of the METP-WG/MOG be invited to report to the METP the cessation of SADIS 2G broadcasts on 31st July 2016 including an update to Job Card METP.008.01.

**3.4 Long term planning of SADIS**

**3.4.1 SADIS matters relating to amendment 78 of Annex 3**

3.4.1.1 It was noted that proposals for Amd78 must be submitted by August'16 for review by the METP in Oct'16. However, the group agreed that MOG have no requirements for Amd78.

**3.4.2 SADIS matters relating to amendment 79 of Annex 3**

3.4.2.1 It was noted that at the 2017 MOG meeting it will be necessary to consider any proposals that are required for Amendment 79 to Annex 3.

**3.4.3 Review of job cards relating to SADIS.**

3.4.3.1 See Action Agreed 3/8.

**AGENDA ITEM 4: TIMETABLE AND FUTURE MEETINGS OF WG-MOG SADIS**

4.1 The group agreed that the 2017 MOG meeting should be scheduled for the week commencing 24 April 2017. A venue is to be agreed.

4.1.1 It was noted that the timetable for future working group meetings is to be discussed at the next management meeting as it is proposed that working groups should meet at the same time each year, and should arrange that these times do not clash with other groups. Although the meeting times would be fixed venues would vary as required.

**AGENDA ITEM 5: ANY OTHER BUSINESS RELATED TO SADIS**

5.1 Under this Agenda Item the group reviewed SN/02, presented by the SADIS Provider State, regarding recent SADIS Evaluations assessed against the 4th round of evaluation criteria. In this regard the meeting was pleased to note that there had been 1 SADIS Evaluation since the last meeting of WG-MOG and that the referred SADIS Workstation provider was evaluated to be compliant in all areas assessed. The meeting also noted the need to update the evaluation form to remove SADIS 2G references. This was considered to be a relatively trivial exercise, and no other changes were proposed to the evaluation process.

-END-



## **APPENDIX A**

### **List of participants**

<b>NAME</b>	<b>STATE</b>	<b>ORGANIZATION</b>
Easthope, Graham	United Kingdom	NATS
Khambule, Gaborekwe	South Africa	South African Weather Service
Gait, Nigel	United Kingdom	UK Met Office
Hord, Colin	United Kingdom	CAA
Gibbs, David	United Kingdom	CAA
Lechner, Peter	New Zealand	CAA
Murphy, Pat	United States	FAA
Ouellet, Mario	Canada	Environment Canada
Rennie, Graham	IATA	IATA
Romero, Raul	ICAO	ICAO
Simon, Patrick	France	Météo-France
Sonnabend, Hans-Rudi	IATA	IATA
Strahan, Matt	United States	NOAA
Tyson, Chris	United Kingdom	UK Met Office

## APPENDIX B

### SADIS OPERATIONAL EFFICACY QUESTIONNAIRE 2016/2017

#### PART A. - GENERAL

1. State:
2. Number of operational SADIS FTP user(s) in your State:
3. Location of the operational SADIS FTP user(s) in your State:

#### PART B. - SADIS FTP SERVICE PROVISION

5. Overall assessment of the SADIS FTP service:
  - a) service quality (excluding local Internet connectivity issues beyond the control of the SADIS Provider State):
    - No problems encountered
    - Problems encountered
    - If problems encountered, specify their nature below:
  - b) Is the SADIS FTP data download rate suitable for your operations?
    - Yes
    - No
    - If 'No', please provide details.
  - c) Availability on the SADIS FTP server (i.e. excluding local Internet connectivity issues, performance of user processing/display equipment and associated software) of WAFS upper-air gridded global forecasts in the WMO GRIB2 code form, including wind/temperature/humidity and CB cloud/icing/turbulence:
    - Good
    - Average
    - Poor
    - Not used
    - If availability of WAFS upper-air forecasts in WMO GRIB2 code form on the SADIS FTP server considered "average" or "poor", specify the nature of the problem below:
  - d) Availability on the SADIS FTP server (i.e. excluding local Internet connectivity issues, performance of user processing/display equipment and associated software) of WAFS SIGWX forecasts in the BUFR code form:
    - Good
    - Average
    - Poor
    - Not used
    - If availability of WAFS SIGWX forecasts in WMO BUFR code form on the SADIS FTP server considered "average" or "poor", specify the nature of the problem below:
  - e) Availability on the SADIS FTP server (i.e. excluding local Internet connectivity issues, performance of user processing/display equipment and associated software) of OPMET messages (METAR, TAF, SIGMET etc.): METP-WG/MOG/3-WP/xxxx

Good  
Average  
Poor  
Not used

If availability of OPMET messages on the SADIS FTP server considered "average" or "poor", specify the nature of the problem below:

6. Reliability of SADIS FTP service (i.e. excluding local Internet connectivity issues, performance of user processing/display equipment and associated software): a) overall assessment:

Good  
Average  
Poor

If the overall reliability of the SADIS FTP service considered "average" or "poor", specify the nature of the problem below:

**PART C. - SERVICE DESK AND ADMINISTRATIVE MESSAGES**

7. Assessment of SADIS 24-hour Service Desk. During the period under review, did you have occasion to contact the SADIS 24-hour Service Desk?

Yes  
No

If the Service Desk was contacted, was the technical support provided satisfactory?

Yes  
No

If considered not satisfactory, specify the nature of the problem related to technical support provided by the Service Desk:

8. Concerning SADIS administrative (service) messages, do you consider that those received were sufficient to keep you advised on the status of SADIS service?

Yes  
No

If administrative message considered not sufficient, specify the nature of the problem below:

**PART D. - ADDITIONAL REMARKS**

9. Additional comments, including suggested future developments. Type your question here:

**PART E. - CONTACT DETAILS**

10. Please provide your contact details to enable ICAO and/or the SADIS Provider to contact you, if necessary, to seek clarification to any of the answers that you have provided to this questionnaire:

Name:

Organization:

Position:

Telephone:

Email:

— END —

## APPENDIX C

### METP-WG ON MET OPERATIONS GROUP (WG-MOG)

#### Terms of Reference

The aim of the MET Operations Group is to ensure that the following systems meet the agreed user requirements:

- WAFS
- SADIS / WIFS
- IAVW

In the longer term it is considered that Space Weather and Regional Hazardous Weather Centres will be added to the remit of the working group.

The MET Operations group should:

- a) Establish Key Performance Indicators for the provision of services based on the performance requirements in coordination with other METP WGs and final agreement by the METP
- b) Define the continuity / availability of services based on the performance requirements, in coordination with the other METP WGs and final agreement by the METP.
- c) Arrange for the reporting of KPIs from each provider State (e.g. verification and timeliness metrics)
- d) Receive reports from each provider State on the management of their system(s)
- e) Set out, review and maintain the back-up arrangements and include relevant details in management reports
- f) Ensure that coordination and harmonisation takes place between WAFCs, VAACs and SADIS / WIFS providers
- g) Monitor, assess and provide advice on potential scientific and technological developments to meet the current, future and evolving performance requirements to the METP in coordination with WMO.
- h) Assess the financial and technical implications of proposed developments to services and their implementation.
- i) Ensure that developments have measurable success criteria for implementation
- j) Establish the timescales, pre-operational tests and implementation of services
- k) Maintain and, when required, create guidance material on the implementation and provision of services.
- l) Identify any weaknesses in the current service provision and coordinate updates to the requirements with other Working Groups of the METP
- m) Ensure that the necessary remedial actions are in place when necessary to overcome identified deficiencies.

- n) Where necessary assist the Secretariat in the coordination of the arrangements between the various international organizations
- o) Maintain an up to date task list
- p) Following each meeting provide a report and make it available on the METP website