

SADIS COST RECOVERY ADMINISTRATIVE GROUP (SCRAG)

TWELFTH MEETING

(London, 3-4 November 2011)

Agenda Item 5: Amendments to Annexes to the Agreement on the Sharing of Costs of the Satellite Distribution System relating to Air Navigation

CLARIFYING AND CONFIRMING ACCESS TO SADIS INTERNET BASED SERVICES AND THE CORRESPONDING USA ADMINISTERED WIFS

(Presented by the United Kingdom)

REFERENCES

SCRAG/11 Report, November 2010, Sections 7.1-7.4 and Conclusion 11/6
WAFSOPSG/6 Report, March 2011, Section 5.2.1, and Conclusion 6/4
SADISOPSG/16 Report, May 2011, Sections 10.10-10.13 and Conclusion 16/25
CNS/MET SG/15 Report, July 2011, Section 8.3.2

1. Introduction

1.1 The group will recall that at the eleventh meeting of SCRAG¹, the SADIS Provider brought to the attention of the group the potential risks to the SADIS Cost Recovery Scheme following the withdrawal of the USA administered ISCS G2² and subsequent reliance by the USA solely on Internet based provision of WAFS data³.

1.2 As a consequence, the group agreed that more explicit guidance would be necessary in Regional Air Navigation Plans (RANPs) to identify which Internet based service (SADIS FTP/Secure SADIS FTP from UK, or WIFS from USA) should be used within a particular State. It was noted that user access in the Asia/Pacific Region in particular needed to be clarified due availability of both SADIS/ISCS within the region and the overlap of

¹ 4 November 2010, Paris, France

² To be withdrawn at midnight, 30 June 2012

³ Including OPMET data for use in flight planning

SADIS/ISCS satellite footprints in the region. For reference, SCRAG 11 conclusion 11/6 is provided in Appendix A.

2 DISCUSSION

2.1 Clarifying User Access to SADIS FTP/Secure SADIS FTP or WIFS:

Further to the SCRAG/11 meeting, the SADIS Provider also raised similar concerns at the WAFSOPSG/6⁴ and SADISOPSG/16⁵ meetings. Both WAFSOPSG and SADISOPSG recognized the concerns, and broadly supported the initial SCRAG Conclusion 11/6 although with some refinement. The respective Conclusions from WAFSOPSG/6 and SADISOPSG/16 are also presented in Appendix A. The main 'refinement' to the original SCRAG/11 Conclusion was noted at WAFSOPSG/6 in that only the Asia/Pacific Region ANP needed to identify more explicitly (on a State by State basis) which service a State should source its Internet based WAFS data from. All other regions indicate only one of either SADIS or ISCS (to be replaced by WIFS) as the sole source of WAFS data so there can be no ambiguity. As such, a draft table of user States in the Asia/Pacific Region was created with an initial assignment specifying from which provider each State should source their WAFS data. This is provided in Appendix B, and it should be noted that the WAFSOPSG Secretariat is expected to formally ratify this table (with any necessary changes) by 18 November 2011.

2.2 Use of the alternative service for backup/contingency purposes:

It should be stressed that both the SADIS and ISCS/WIFS provider strongly recommend and encourage the obtaining of accounts to access the alternative service for use in *backup/contingency* scenarios, but such accounts should not be used to undermine either of the SADIS or WIFS services and primary operational access to WAFS data should be as defined in the RANPs.

2.3 Defining 'operational use':

At SADISOPSG/16, it was deemed necessary for the SADIS Technical Developments Team to determine criteria that would define 'operational use'. Exceeding the usage criteria would imply operational use, and unless the user was identified in RANPs as being a bona fide recipient for operational purposes and also participated in the SADIS Cost Recovery scheme may result in the suspension of the account. A limited amount of access - below the criteria specified will be permitted to enable users to test connections on an occasional basis. SADISOPSG Conclusion 16/25 is reproduced in Appendix A.

2.4 Accessing both SADIS FTP/Secure SADIS FTP and WIFS on a continuous basis:

Notwithstanding the intent of para 2.3 above, it is acknowledged that in rare cases users with international commitments may desire operational access to both SADIS and WIFS on a continuous basis. The SADIS and WIFS providers have agreed that exceptionally, and on a case by case basis without prejudice, operational access to both services *may* be granted but the user must participate fully in the SADIS Cost Recovery scheme.

3 Process for obtaining access to SADIS FTP/Secure SADIS FTP or WIFS:

3.1 Section 2 above summarizes the considerations surrounding the access to and the use of SADIS. In order to give clear guidance to users of the SADIS (and WIFS) services, Appendix C clarifies the processes for obtaining access to either. It reflects the

⁴ 21-24 March 2011, Dakar, Senegal

⁵ 23-25 May 2011, Paris, France

consensus from the WAFSOPSG/6 and SADISOPSG/16 meetings, and it is worth noting was presented to the CNS/MET SG/15⁶ meeting. Section 8.3.2 of the Report of CNS/MET SG/15 identifies the procedure as presented to that meeting. As such, to formally ratify the process that has been discussed at several meetings, the group is invited to consider the following draft Conclusion;

Draft Conclusion 12/xxx

That,

- a) the SCRAG formally endorse the process for obtaining access to SADIS (and as a consequence WIFS) Internet based services as presented in Appendix C to this Working Paper;
- b) the Secretariat inform the Chairs of both WAFSOPSG and SADISOPSG of the endorsement; and,
- c) The SADIS Provider update the User Documentation accordingly

Note: - The WIFS Provider would be expected to also update their User Documentation accordingly

3.2 It should be noted that the ISCS/WIFS Provider have been very supportive of the SADIS Provider's position and have agreed to the proposals. Both the WIFS and SADIS Providers will share usage data in order to monitor access, and ensure that the guidelines are followed.

4 Consequences of the above discussions on the Annexes to the SADIS Agreement:

4.1 Following the above summary of the discussions and Conclusions of WAFSOPSG and SADISOPSG - as well as SCRAG itself, it is necessary to consider if the Annexes to the SADIS Agreement need to be amended accordingly. The following proposal is tabled:

1) Annex I, SADIS SERVICES

It is considered that, to remove any potential for ambiguity, that more explicit references to the SADIS FTP and Secure SADIS FTP versions of the service are included and the opportunity is taken to bring Annex I's glossary up to date. The necessary amendments are included in Appendix D to this WP .

In order to formally agree the proposal, the group is invited to consider the following draft Conclusion;

Draft Conclusion 12/xxx

That,

- a) the Secretariat of SCRAG amend Annex I to the SCRAG Agreement as per the Appendix D to this WP.

⁶ 25-29 July 2011, Bangkok, Thailand

5. ACTION BY THE GROUP

5.1 The group is invited to;

- a) note the information in this paper, and
- b) decide on the draft Conclusions proposed for the group's consideration.

APPENDIX A

Relevant extracts and Conclusions from SCRAG, WAFSOPSG and SADISOPSG with regard to the access to the internet based services as provided by the SADIS and ISCS/WIFS Provider States for delivery of WAFS Forecasts (including OPMET for flight planning purposes⁷).

SCRAG/11, 4 November 2010, Paris, France

Conclusion 11/6: The SCRAG endorses and recommends the position that RANPs should be reviewed and clarified in light of the global coverage of internet based distribution to the effect that it be confirmed that:

a) States in the AFI, EUR, and MID regions source their primary OPMET data from the SADIS Provider State (i.e. via SADIS 2G and SADIS FTP);

b) States in the CARSAM region source their primary OPMET data from the ISCS Provider State (i.e. via ISCS 2G or WIFS);

c) ASIAPAC States identified as being outside the ISCS footprint source their primary OPMET data from the SADIS Provider State (i.e. via SADIS 2G and SADIS FTP);

d) ASIAPAC States identified as being outside the SADIS footprint source their primary OPMET data from the ISCS Provider State (i.e. via ISCS G2 or WIFS);

e) ASIAPAC States under both satellite footprints would be free to choose a primary source from either provider.

The Chairman of the SCRAG shall forward the above endorsed Conclusion to the Chairmen of the SADISOPSG and the WAFSOPSG for follow up action.

WAFSOPSG/6, 21-24 March 2011, Dakar, Senegal

5.2.1 The group discussed ongoing issues concerning the global relationship between the Internet-based WAFS Internet File Service (WIFS), the satellite distribution system for information relating to air navigation (SADIS) file transfer protocol (FTP) and secure SADIS FTP WAFS data delivery mechanisms. In this regard, the group noted that the termination of the satellite broadcast by the international satellite communications system (ISCS) Provider State in June 2012 and the operation of its replacement service (WIFS). The focus over the next year would be the transition of ISCS users from the satellite-based service to the new Internet-based service. The group also noted that the SADIS Provider State would continue to provide WAFS data via satellite broadcast over SADIS 2G until at least 2015, as well as continuing to provide the SADIS FTP service until November 2011⁸ after running it in

⁷ WAFSOPSG/5 Decision 5/9 determined that "... the OPMET data and WAFS forecasts distributed through the ISCS/SADIS services, if only used for flight planning, can be considered non-time critical and therefore can be accessed through the public Internet"

⁸ Following on from SADISOPSG/16 Conclusion 16/15 SADIS FTP will remain in service until 30 November 2012. It is intended that there will be **no further** extensions.

parallel for at least one year with its replacement service - Secure SADIS FTP. The Secure SADIS FTP service currently has no planned end date. Since these systems (WIFS and Secure SADIS FTP Service) do not use identical access protocols, nor do they have identical folder structures, the group reviewed the differences in the Internet-based services. Regarding the backup options available, it was considered essential that users have pre-arranged appropriate service accounts directly with the contingent Service Provider. Regarding the planning and operation of the SADIS and ISCS/WIFS, some controls were proposed which should be based on pre-existing arrangements described in the Regional Air Navigation Plans (ANP). Finally, the group reviewed the criteria for the access to the Internet-based services (SADIS FTP/WIFS/ Secure SADIS FTP Service) for the Asia and Pacific (APAC) Region due to its unique geographical position (i.e. within the satellite footprints of SADIS and ISCS). The group noted that authorized access considerations were already reflected in the Regional Air Navigation Plans of all ICAO Regions. However, the group felt that the criteria for the access to the Internet-based services (SADIS FTP/WIFS/Secure SADIS FTP Service) for the APAC Region, especially for those States on the border of the ISCS and SADIS satellite footprints, deserved further assessment and tasked the Secretariat, in coordination with the WAFCS, to undertake such assessment. Therefore the group formulated the following conclusion:

Conclusion 6 /4 — Criteria for the access to the Internet based services (SADIS FTP/WIFS) for the Asia and Pacific (APAC) Region

That, the ASIA/PAC Basic ANP and FASID, Volumes I and II be amended by the Secretariat in coordination with the WAFCS Provider States to clearly specify the criteria for the access to the Internet-based services (SADIS FTP/WIFS/ Secure SADIS FTP), in light of the global coverage of the public Internet.

Note.— The intent is that the operational access to OPMET data (including WAFS) should be through the primary system as defined in Appendix D to this report

This action is due to be completed by 18th November 2011, see WAFSOPSG/6 follow up table.

SADISOPSG/16, 23-25 May 2011, Paris, France

10.11 It was noted that, subsequent to the introduction of Internet-based dissemination of OPMET information (i.e. SADIS FTP and WIFS), the footprint had become “global”. With the enabling clause in Amendment 75 to Annex 3 - allowing provision of non-time critical aeronautical data over the Public Internet; combined with the discontinuation by the ISCS Provider State of their satellite-based service in June 2012 and its replacement with the purely Internet-based WIFS system, the group felt that there was a need to re-address the provision of OPMET information (including WAFS forecasts) through Internet-based services. In particular, the group considered that, in order to ensure the future stability and viability of the SADIS, there was a need to clarify “the access rights” in the ASIA/PAC Regions, due to a large area currently served by both SADIS and ISCS satellite broadcasts.

10.12 The group was pleased to note that the issue had been addressed by the sixth meeting of the World Area Forecast System Operations Group, which had formulated Conclusions 6/4 calling for the Secretariat to clarify the position with respect to user States within the ASIA/PAC Regions. For the user States in other regions, it had been considered by the WAFSOPSG that the existing provisions of the RAN plans were sufficient, i.e. users under the SADIS footprint would have access to the SADIS FTP services while those under the ISCS footprint would be given access to WIFS. It was noted that the SADIS and ISCS Provider States intended to manage the future access to their respective systems and the

distribution of OPMET information (including WAFS forecasts) in accordance with the principles emanating from the study to be undertaken in response to the WAFSOPSG Conclusion 6/4.

10.13 The group noted that States could receive data via SADIS FTP/Secure SADIS FTP services free of charge under exceptional circumstances, i.e. back-up purposes. It was noted that the maximum volume of data that could be received for this specific purpose had never been established. The group agreed that the time had come to establish such a threshold whereby any user exceeding the data volume threshold would be deemed to be using the service for operational purposes and would have to take part in the SADIS cost recovery scheme. It was further agreed that a State receiving OPMET data (including WAFS forecasts) operationally from both the SADIS and ISCS Provider States would have to participate in the SADIS cost recovery scheme (unless the State was a LDC). In view of the foregoing, the group formulated the following conclusion:

Conclusion 16/25 — Establishment of a threshold for an “operational data volume” concerning the SADIS FTP/Secure SADIS FTP services

That, the SADIS Technical Developments Team, in coordination with the SADIS Provider State, establish, by 31 August 2011, a threshold for data volume beyond which the user is considered to be receiving OPMET data (including WAFS forecasts) for operational purposes and be, as such, subject to SADIS cost recovery.

Note. – Information will be presented to the SCRAG/12 Meeting by the SADIS Provider State.

APPENDIX B

ACCESS TO SADIS/WIFS FOR INTERNET BASED DELIVERY OF WAFS DATA IN THE ASIA/PACIFIC REGION

WAFSOPSG/6 Conclusion 6/4 requires the WAFSOPSG Secretary to amend the ASIA/PAC Basic ANP and FASID, Volumes I and II to identify which of the SADIS ISCS/WIFS Providers a State must obtain their operational WAFS data. The table below indicates the *proposed* distribution as presented to WAFSOPSG/6. The final form may differ slightly, but is expected to be substantively as given below. WAFSOPSG Secretariat's action is due to be complete by 18 November 2011.

ICAO Contracting State	Falling within ICAO Region	Current RANP Assignment	Primary Provider for Internet based data provision
Afghanistan	APAC Region	ISCS/SADIS	SADIS FTP
Australia	APAC Region	ISCS/SADIS	Either
Bangladesh	APAC Region	ISCS/SADIS	SADIS FTP
Bhutan	APAC Region	ISCS/SADIS	SADIS FTP
Brunei Darussalam	APAC Region	ISCS/SADIS	Either
Cambodia	APAC Region	ISCS/SADIS	Either
China	APAC Region	ISCS/SADIS	Either
China - Hong Kong Special Administrative Region	APAC Region	ISCS/SADIS	Either
China - Macao Special Administrative Region	APAC Region	ISCS/SADIS	Either
Cook Islands	APAC Region	ISCS/SADIS	WIFS
Democratic People's Republic of Korea	APAC Region	ISCS/SADIS	Either
Fiji	APAC Region	ISCS/SADIS	WIFS
India	APAC Region	ISCS/SADIS	SADIS FTP
Indonesia	APAC Region	ISCS/SADIS	Either
Japan	APAC Region	ISCS/SADIS	Either
Kiribati	APAC Region	ISCS/SADIS	WIFS
Lao People's Democratic Republic	APAC Region	ISCS/SADIS	Either
Malaysia	APAC Region	ISCS/SADIS	Either
Maldives	APAC Region	ISCS/SADIS	SADIS FTP
Marshall Islands	APAC Region	ISCS/SADIS	WIFS
Micronesia Federated States of	APAC Region	ISCS/SADIS	WIFS
Mongolia	APAC Region	ISCS/SADIS	Either
Myanmar	APAC Region	ISCS/SADIS	Either
Nauru	APAC Region	ISCS/SADIS	WIFS
Nepal	APAC Region	ISCS/SADIS	SADIS FTP
New Zealand	APAC Region	ISCS/SADIS	WIFS
Pakistan	APAC Region	ISCS/SADIS	SADIS FTP
Palau	APAC Region	ISCS/SADIS	Either
Papua New Guinea	APAC Region	ISCS/SADIS	WIFS
Philippines	APAC Region	ISCS/SADIS	Either
Republic of Korea	APAC Region	ISCS/SADIS	Either
Samoa	APAC Region	ISCS/SADIS	WIFS
Singapore	APAC Region	ISCS/SADIS	Either

Solomon Islands	APAC Region	ISCS/SADIS	WIFS
Sri Lanka	APAC Region	ISCS/SADIS	SADIS FTP
Thailand	APAC Region	ISCS/SADIS	Either
Timor-Leste	APAC Region	ISCS/SADIS	Either
Tonga	APAC Region	ISCS/SADIS	WIFS
Tuvalu	(APAC Region)	ISCS/SADIS	WIFS
Vanuatu	APAC Region	ISCS/SADIS	WIFS
Viet Nam	APAC Region	ISCS/SADIS	Either

APPENDIX C

PROCESS FOR OBTAINING ACCESS TO SADIS OR WIFS

1.1 Following discussions at SCRAG/11, WAFSOPSG/6 and SADISOPSG/16, and in consultation with the WIFS Provider, the following processes are to be followed with regard to the provision of WAFS data via the internet based services: SADIS FTP, Secure SADIS FTP, and WIFS. The guidance below is expected to be included in forthcoming updates to both the SADIS FTP/Secure SADIS FTP and WIFS User Guides.

1) States directed in RANPs to take WAFS data from SADIS for primary operational use

For those States that are directed by the RANP to use SADIS as their primary source of WAFS data the following procedures are applicable:

- SADIS⁹ accounts will be provided (following normal authorization processes) on request to the SADIS Provider; and,
- Participation in the SADIS Cost Recovery Scheme will be required (excepting LDCs¹⁰ as defined by UN)
 - WIFS accounts will be provided by the WIFS Provider on condition that:
 - A SADIS account has been authorized and provided
 - There are no outstanding balances in respect of the SADIS Cost Recovery Scheme
 - That use is restricted to backup/contingency purposes, as well as occasional testing.

2) States directed in RANPs to take WAFS data from WIFS for primary operational use

For those States that are directed by the RANP to use WIFS as their primary source of operational WAFS data the following procedures are applicable:

- WIFS accounts will be provided (following normal authorization processes) on request to the WIFS Provider
 - SADIS accounts will be provided by the SADIS Provider on condition that:
 - A WIFS account has been authorized and provided
 - That use is restricted to backup/contingency purposes, as well as occasional testing.

3) States identified in RANPs as being able to *select either WIFS or SADIS* for WAFS data for primary operational use

The State, having selected which of the two services from which they wish to receive their primary operational supply of WAFS data, the procedures in 1) and 2) above will apply.

1.2 In exceptional circumstances, States that have an operational requirement to access both WIFS and SADIS FTP/Secure SADIS FTP on a continuous basis will have their

⁹ SADIS 2G, SADIS FTP, Secure SADIS FTP or any combination thereof

¹⁰ Least Developed Country

requests considered on a case by case basis. Under such circumstances a State taking both services will be required to contribute fully to the SADIS Cost Recovery Scheme (LDCs as defined by UN excepted).

1.3 The definition of the usage criteria defining 'operational' vs 'backup/contingency purposes' to be applied to the SADIS and WIFS Internet based services will be that as determined - and adjusted from time to time as deemed necessary - by the SADIS Technical Developments Team in consultation with the WIFS Provider.

APPENDIX D

Proposed amendments to Annex I of the SGRAG Agreement

ANNEX I

SADIS SERVICES

Note.— A glossary of abbreviations as used in this Annex is provided at the end of the Annex.

1. Broadcast service

A summary of products available on SADIS 2G, SADIS FTP and Secure SADIS FTP. Detailed descriptions are contained within the specific User Guides to each of these services.

- a) distribution of WAFS upper-air forecasts in GRIB1 and GRIB2 codes;
- b) distribution of WAFS SIGWX forecasts in BUFR code;
- c) distribution of WAFS SIGWX forecasts in PNG chart form;
- d) distribution of OPMET information in alphanumeric format (METARs, TAFs, SIGMET, special AIREPs, volcanic ash and tropical cyclone advisories) from those regions whose OPMET information is needed to satisfy approved requirements in the regions served by SADIS;
- e) distribution of meteorological information in graphical format (e.g. Volcanic Ash Trajectory and Dispersion Graphics).

2. Collection service

- a) collection of ~~relevant~~ OPMET information by the SADIS Gateway from States in accordance with approved requirements stated by PIRGs and actioned by SADISOPSG;
- b) monitoring, validation and repair of data received at the SADIS Gateway to the required standards, for the provision of real-time scheduled reports and for off-line quality control analysis.

3. Back-up service

ISDN backup link between NWSTG and SADIS Gateway. ~~Reception of US ISCS broadcasts for back-up purposes.~~

ISDN backup link between SADIS Gateway and SADIS 2G Uplink facility at Whitehill (UK).

4. User support service

- a) 24-hour help line/faults desk;
- b) dissemination of administrative messages, including amendments to bulletin headers given in the SADIS User Guide.

5. File transfer protocol service

Provision of facilities dedicated to establishing and receiving an FTP connection, using password protected access, to the SADIS FTP server that enables the transfer of WAFS upper-air forecasts in GRIB code, WAFS SIGWX forecasts in BUFR code, WAFS SIGWX forecasts in PNG chart form and OPMET data over the Public Internet.

Glossary of abbreviations

<i>AIREP</i>	Air report
<i>BUFR</i>	Binary Universal Form for the Representation of meteorological data (code)
<i>FTP</i>	File Transfer Protocol (Internet based)
<i>GRIB1</i>	Gridded binary edition 1 (code)
<i>GRIB2</i>	Gridded binary edition 2 (code)
<i>ISCS</i>	International Satellite Communication System (U.S. satellite broadcasts similar to SADIS covering North and South America, the Caribbean and Central America, the Pacific and Eastern Asia)
<i>ISDN</i>	Integrated Services Digital Network
<i>METAR</i>	Routine aviation weather report in code form
<i>NWSTG</i>	National Weather Service Telecommunications Gateway (Washington, USA)
<i>OPMET</i>	Operational meteorological (information or data)
<i>PIRG</i>	ICAO planning and implementation regional group
<i>PNG</i>	Portable Network Graphics (image format)
<i>SADIS</i>	Satellite Distribution for Information Relating to Air Navigation
<i>SADIS FTP</i>	Internet based version of SADIS
<i>Secure SADIS FTP</i>	Internet based version of SADIS using Digital Signatures and Digital Certificates to confirm data integrity and authenticity of the data.
<i>SADIS Gateway</i>	The United Kingdom message-handling system which receives data from the Aeronautical Fixed Service for transmission on SADIS
<i>SADISOPSG</i>	SADIS Operations Group
<i>SIGMET</i>	Information of specified en-route weather phenomena which may affect the safety of aircraft operations

SIGWX Significant weather

~~*T4* Coded digital facsimile transmission format~~

TAF Aerodrome forecast in code form

~~*TROPICS* Transmission and reception of observational and product information
by computer based switching (message switching equipment)~~

WAFS World area forecast system

- END -