



International Civil Aviation Organization

**SIXTEENTH MEETING OF THE  
COMMUNICATIONS/NAVIGATION/SURVEILLANCE AND  
METEOROLOGY SUB-GROUP (CNS/MET SG/16) OF APANPIRG**

Bangkok, Thailand, 23 – 27 July 2012

**Agenda Item 8: Regional Implementation of the World Area Forecast System**

3) Other WAFS (ISCS/WIFS & SADIS/Secure SADIS FTP)

**OBTAINING ACCESS TO THE INTERNET BASED SERVICES OF THE SADIS  
AND WIFS PROVIDERS**

(Presented by WIFS & SADIS Provider States)

**SUMMARY**

This Information Paper informs the CNS/MET SG/16 of the discussions and conclusions drawn from SCRAG, WAFSOPSG and SADISOPSG with regard to the provision of WAFS and OPMET (for flight planning purposes) via Internet based services. The paper then informs the meeting of the arrangements that will be put in place in order for States to gain access to the Internet based services of the SADIS and WIFS Providers.

This paper relates to –

**Strategic Objectives:**

**A: Safety** – *Enhance global civil aviation safety*

**Global Plan Initiatives:**

GPI-19 Meteorological Systems

**1. INTRODUCTION**

1.1 This Information Paper (IP) informs the CNS/MET SG/16 of the discussions and conclusions drawn from SCRAG<sup>1</sup>, WAFSOPSG<sup>2</sup> and SADISOPSG<sup>3</sup> with regard to the provision of WAFS and OPMET (for flight planning purposes) via Internet based services by the WIFS<sup>4</sup> and SADIS Provider States.

1.2 The IP informs the group of expected revisions to the ASIA/PAC Regional Air Navigation Plan to clarify the position with regard to which of the two services States within ASIA/PAC should obtain their services from for operational purposes.

<sup>1</sup> SADIS Cost Recovery Administrative Group

<sup>2</sup> World Area Forecast System Operations Group

<sup>3</sup> Satellite Distribution System Operations Group

<sup>4</sup> WAFS Internet File Service

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**2. BACKGROUND**

2.1 The SADIS and WIFS Provider States have indicated to the appropriate ICAO fora that in order for both of their Internet based services for the provision of WAFS/OPMET data to remain viable it is necessary to control and manage access to their respective services. For their administrative efficiency and capacity management, both Provider States require that the demarcation determining which users should access their respective services should broadly follow the demarcation as physically represented by the ISCS G2<sup>5</sup> and SADIS 2G satellite footprints. In exceptional circumstances, operational access to both WIFS and SADIS FTP/Secure SADIS FTP on a continuous basis may be granted, and will be considered by both providers on a case by case basis.

2.2 The ASIA/PAC RANP is unique in that both SADIS and WIFS (previously ISCS) are referenced within the plan. WAFSOPSG/6 Conclusion 6/4 (see **Appendix A**) placed an action on the WAFSOPSG Secretariat to clarify and seek appropriate revisions to the ASIA/PAC Basic ANP and FASID to clarify which of the two services user States within the region should apply to for access for operational supply of data (see **Appendix B**). This action was completed 24 February 2012.

2.3 In addition to the routine operational source of data, user States are encouraged to apply for accounts for the alternative service for backup/contingency purposes. Such accounts must not be used to undermine the direction given in the RANP with regard to access to such data and both Provider States will monitor user access.

**3. IMPLEMENTATION**

3.1 Following the meetings and subsequent conclusions referenced in section 2 above, agreed policies have been established regarding access to SADIS/WIFS, and are presented in **Appendix C** to this paper.

3.2 Paragraph 6 of Appendix C makes reference to a threshold that will be used to determine if a user is using SADIS or WIFS on an operational basis. The threshold that has been established was endorsed (Decision 17/18) at the seventeenth meeting of the SADISOPSG (May 2012, Cairo) to be 1 day in 7. That is, users who have arranged a backup up account with the alternative provider will be entitled to use that account for up to 1 day in every 7 for periodic testing. Use in excess of 1 day in 7 will constitute operational use. On those rare occasions when the normal service of WIFS/SADIS is compromised, users with backup accounts will be permitted continuous use of the backup service. The full SADISIOPSG Decision 17/18 is provided in **Appendix D**.

3.3 Users of Secure SADIS FTP and WIFS internet based services are reminded that:

- a) WIFS and Secure SADIS FTP use different protocols, the former uses https, the latter ftp with digital signatures/certificates with which to validate data.
- b) WIFS and Secure SADIS FTP use different folder structures.
- c) WIFS and Secure SADIS FTP use different filename conventions, and file behaviour.
- d) WIFS and Secure SADIS FTP use different log in credentials.

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<sup>5</sup> Ceased 0400 UTC, 01 July 2012

Users with an interest in the precise details regarding the behavior of each system should consult the respective user guides.

**4. CONCLUSION**

4.1 Both Provider States have invested in their respective services in order to provide reliable and useful services for many years to come. In order to ensure ongoing viability, it is necessary to manage and control access to those services. Whilst there is sufficient capacity to provide backup/contingency services, uncontrolled/unmanaged access renders capacity and administrative planning ineffective.

4.2 As such, the intent is that access to the Internet based services from the Provider States will be in accordance with the views as expressed in the discussions and Conclusions from SCRAG, WAFSOPSG and SADISOPSG.

**5. ACTION BY THE MEETING**

3.1 The meeting is invited to:

- a) note the information contained in this paper; and
- b) discuss any relevant matters as appropriate.

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## 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 purposes<sup>1</sup>).**

#### **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

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<sup>1</sup> 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"

continuing to provide the SADIS FTP service until November 2011<sup>2</sup> after running it in 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 WAFc 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.

***NOTE: The above Conclusion was completed 24 February 2012***

**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.

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<sup>2</sup> 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.

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.*

***NOTE: The above Conclusion was completed and endorsed via SADISOPSG/17 Decision 17/18 May 2012 and presented in Appendix D of this paper.***

**SADISOPSG/17 29-31 May 2012, Cairo, Egypt**

**Decision 17/8 — Policy for authorized access to SADIS and WIFS by States/users**

That the policy representing the approved process for determining how States/users should obtain authorized access to SADIS FTP/Secure SADIS FTP or the World Area Forecast System Internet File Service (WIFS) for operational or backup purposes, as presented at **Appendix G**<sup>3</sup> to this report, be endorsed.

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<sup>3</sup> Appendix C to this Working Paper.

*Note 1.— SADIS FTP will be withdrawn on 30 November 2012 in accordance with SADISOPSG Conclusion 16/15.*

*Note 2.— The policy described above is included in the SADIS User Guide as of the fifth edition.*

## APPENDIX B

WAFSOPSG/6 Conclusion 6/4 requires the WAFSOSPG 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. The action was completed by the WAFSOPSG Secretary on 24 February 2012.

| 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

(As copied from Appendix E to the 5th Edition of the SADIS User Guide)

### **PROCESS FOR DETERMINING FROM WHICH SERVICE (SADIS OR WIFS) A USER SHOULD OBTAIN OPMET INFORMATION AND WAFS FORECASTS**

#### **GENERAL**

1. In order for the SADIS and WIFS Provider States to appropriately manage and maintain viable, mutually existing services delivering OPMET information and WAFS forecasts, the following process should be followed in order to determine from which service (SADIS or WIFS) a user within a particular State should arrange to obtain their data.

#### **STATES REQUIRED IN ICAO REGIONAL AIR NAVIGATION PLANS TO OBTAIN WAFS FORECASTS FROM SADIS FOR PRIMARY OPERATIONAL USE**

2. For those States required by the ICAO Regional Air Navigation Plans to use SADIS as their primary source from which to obtain WAFS forecasts, the following procedure applies:

- a) SADIS accounts will be provided (following normal authorization processes) on request to the SADIS Provider State; and,
- b) participation in the SADIS cost recovery scheme will be required (except for LDCs as defined by United Nations).
- c) WIFS accounts will be provided to authorized SADIS users by the WIFS Provider State for backup purposes on condition that:
  - a SADIS account has been authorized and provided;
  - there are no outstanding balances in respect of the SADIS cost recovery scheme; and
  - use is restricted to backup purposes and periodic testing.

#### **STATES REQUIRED IN ICAO REGIONAL AIR NAVIGATION PLANS TO OBTAIN WAFS FORECASTS FROM WIFS FOR PRIMARY OPERATIONAL USE**

3. For those States required by the ICAO Regional Air Navigation Plans to use WIFS as their primary source from which to obtain WAFS forecasts, the following procedure applies:

- a) WIFS accounts will be provided (following normal authorization processes) on request to the WIFS Provider State; and
- b) SADIS accounts will be provided to authorized WIFS users by the SADIS Provider State for backup purposes on condition that:
  - a WIFS account has been authorized and provided; and
  - use is restricted to backup purposes and periodic testing.

#### **STATES IDENTIFIED IN THE ICAO REGIONAL AIR NAVIGATION PLANS AS BEING ABLE TO OBTAIN WAFS FORECASTS FROM EITHER SADIS OR WIFS FOR PRIMARY OPERATIONAL USE**

4. The State, having determined which of the two services (SADIS or WIFS) to obtain their primary operational supply of WAFS forecasts, the procedures in 2 and 3 will apply.

5. In exceptional circumstances, States that have an operational requirement to obtain data from both WIFS and SADIS FTP on a continuous basis will have their 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 (unless recognized as United Nations LDC).

6. The definition of the threshold for operational versus backup purposes to be used on the SADIS and WIFS Internet-based services will be that as defined and endorsed by the SADISOPSG.

## APPENDIX D

### Criteria for determination of the operational use of SADIS and WIFS

SADISOPSG/17:

#### **Decision 17/18 — Criteria for determination of the operational use of SADIS and WIFS**

That the following criteria be endorsed which determine whether SADIS and the WAFS Internet File Service (WIFS) are being used for operational purposes by States/users:

- a) when a WIFS account has been provided to an authorized State/user who is required, by regional air navigation agreement, to obtain their WAFS data via SADIS, the State/user should not access the contingent WIFS service more frequently than 1 day in every 7;
- b) when a SADIS account has been provided to an authorized State/user who is required, by regional air navigation agreement, to obtain their WAFS data from WIFS, the State/user should not access the contingent SADIS service more frequently than 1 day in every 7; and
- c) in the extremely unlikely event of the SADIS or WIFS services failing, temporary unlimited access will be permitted to the contingent service until full resumption of service.

*Note 1.— The criteria of 'no more than 1 day in every 7' will allow users to test the backup account on schedule of at least once every week. As long as the 'no more than 1 day in 7' criteria is not exceeded, the specific days/times States/users wish to test their accounts is at the State/user's discretion, and they may do so less frequently (monthly for example) if they so wish.*

*Note 2.— Backup accounts will be maintained in a 'live' status in order that immediate access is available in the event of a genuine need to access the alternative provider's service for backup purposes.*

*Note 3.— The SADIS and WIFS Providers will monitor their services to determine access behaviour.*

*Note 4.— It remains the sole responsibility of the State/user to determine if they require a backup account from the alternative Provider, and if so to arrange for that account.*