



*International Civil Aviation Organization*

**Seventh Meeting of CNS/MET Sub-Group of APANPIRG and  
Tenth Meeting of CNS/ATM IC Sub-Group of APANPIRG**

Bangkok, Thailand, 15 – 21 July 2003

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

**SADIS DEVELOPMENTS**

(Presented by the United Kingdom)

**SUMMARY**

A high level overview of the main issues and changes that have involved the SADIS programme during the past twelve months are summarised in this paper.

**1.      Introduction**

A summary of the main changes/additions to the SADIS programme during the past 12 months is summarised in this information paper. These issues are described in greater detail in the 2002-03 SADIS Management Report that was presented to the Eighth Meeting of the SADIS Operations Group, 7-10 July 2003. A full copy of the SADIS Management Report is available upon contacting WAFC London.

**2.      High Level Summary of 2002-03 SADIS Management Report**

**2.1**      The growth of SADIS during the past 12 months has been slow with 4 new systems installed across the footprint. The greatest growth was in region EUR. The slow rate of growth is partially a result of the temporary cessation in the supply of new receivers by Astrium following the sale of the receiver patent from one U.S. company to another. Resumption in the supply of new systems commenced in early 2003.

**2.2**      The fifth two-way VSAT is in the process of being shipped to Dakar to be used as spares for the VSAT currently in service in Dakar. This unit was originally scheduled to be installed in Nairobi but since installation did not take place by the end of 2002, it was diverted to Dakar (SADISOPSG Conclusion 7/11 refers).

**2.3**      The Internet based *SADIS Standard Service* has been provided as an operational backup service to an increasing number of users during the year. Approximately 50 accounts have been activated, including a number for authorised ISCS users.

**2.4**      A number of additional suppliers of workstation software have approached the SADIS provider. The software from one of these companies – MapMaker Group Ltd. - has been reviewed and the company has been added to the list of suppliers.

**2.5** The dissemination of WAFC London high level BUFR encoded SIGWX data on PVC3 has continued throughout the year. This information was declared operational on the 4 June 2003. Medium level BUFR encoded SIGWX data will become available during 2004.

**2.6** GRIB and BUFR training seminars have been held in Bangkok, Johannesburg, Bracknell and Moscow for SADIS users in the Asian, East and Southern African regions, Western European, and Eastern European States respectively. It is anticipated that an event in the MID region will take place towards the end of 2003, or early in 2004.

**2.7** At the time of writing the SADIS provider is nearing completion of a trial of the SADIS 2<sup>nd</sup> Generation (2G) system. The 2G System will use cost-effective 'off-the-shelf' technology using the IP protocol from end to end and the industry standard modulation - QPSK with Viterbi and Reed-Solomon coding. A full report about this trial has been presented to SADISOPSG/8, and a decision may be taken at this meeting regarding the possible operational implementation of a 2G service.

**2.8** Administration messages have been issued on a regular basis during the year. These messages have also been made available for viewing on the SADIS web site via URL: <http://www.metoffice.com/SADIS/SADISmessages.html>

Action has been taken to establish a web based one-month archive facility for administrative messages.

**2.9** An additional supplier of VSAT hardware equipment – Bradford University Remote Sensing (BURS) Ltd. - will commence business in the SADIS market shortly. Initially they will only support receivers that can provide a TCP/IP output, but it is envisaged that at a later date conversion from TCP/IP to X.25 PVC's will also become available via an externally mounted conversion unit.

**2.10** European region GAMETs and AIRMETs have been added to the broadcast schedule in accordance with SADISOPSG Conclusion 7/8.

**2.11** The SADISOPSG Technical Developments Team has been studying alternative two-way communication technologies and will be making a recommendation to SADISOPSG/8 that a trial of an Intelsat approved two-way service is implemented. This trial, if accepted by the SADISOPSG, will utilise very cost effective, off-the-shelf technology.

**2.12** A significant number of backup tests have taken place during the past twelve months to confirm the effectiveness of the WAFC backup capabilities. T.4 SIGWX chart backup capabilities have been proven and WAFS GRIB backup capabilities will be tested later in 2003. To ensure that all users can successfully utilise WAFC Washington derived GRIB data, WAFC London has agreed to "re-process" the Washington GRIB into a format that can be used by existing workstation software. The "re-processing" will involve modify headers (AHLs) so that the bulletins appears to end workstations as if they have been produced by WAFC London.

### **3. Conclusion**

**3.1** The range of products distributed via SADIS has continued to expand during the past twelve months as SADIS matures as an effective distribution service.

**3.2** A number of important additional services are being tested at the time of writing, notably the SADIS 2G trial, and the new BURS receiver. If the operational implementation of the SADIS 2G service is recommended by the SADISOPSG then future recommendations will be made to new and existing users within the ASIA/PAC region regarding upgrades to their VSAT hardware.