International Civil Aviation Organization   COM/MET/NAV/SUR SG/3-IP/3

Third Meeting of COM/MET/NAV/SUR Sub-Group of APANPIRG

Bangkok, Thailand, 12-16 July 1999

Agenda Item 7:   **Review implementation of the ISCS and SADIS satellite broadcasts**

DISSEMINATION AND USE OF WAFS DATA IN HONG KONG, CHINA

(Presented by Hong Kong, China)

Summary

This paper presents the current status of dissemination and use of WAFS data in Hong Kong, China.

1. Introduction

1.1   The Hong Kong Observatory (HKO) receives WAFS products from the SADIS and ISCS-2 broadcasts. This paper presents the current status of dissemination and use of the received data in Hong Kong, China.

2. Discussion

2.1   The HKO receives WAFS products from the SADIS and ISCS-2 satellite broadcasts and re-distributes the information to other users in Hong Kong. Reception of SADIS broadcast began in 1996, while reception of ISCS-2 broadcast began in 1997.

2.2   In addition to preparing its own SIGWX and Wind/Temperature charts, the HKO routinely makes use of 46 T4 charts from the SADIS data set to compile flight documents for about 230 flights departing from the Hong Kong International Airport (HKIA) every day. The HKO operates a fax server as well as a Meteorological Information Dissemination System (MIDS) to disseminate the flight documents. The fax server compiles the flight document for each departing flight and faxes it to the airline office concerned about 3 hours before flight departure. The MIDS is a private web server developed by the HKO which can be accessed by authorized users (i.e. airlines and ground handling agents operating at the HKIA) via

56 kbps modem dialup or 128 kbps ISDN connection using personal computers. At any time, an airline operator can either retrieve a flight document in full by selection of the flight number, destination aerodrome or flight route, or compile it from the set of charts available on the server. Apart from flight documentation, airline operators can also retrieve and display a host of weather information from the MIDS, including aerodrome warnings, up-to-the-minute aerodrome weather observations, aerodrome forecasts, radar and satellite imageries, tropical cyclone information, etc. On average, around 9 Gbytes of meteorological information are downloaded from the MIDS by 26 airline operators and ground handling agents each month.

2.3   To supplement the OPMET information received through the AFTN, selected METARs and TAFs of destination aerodromes received from the SADIS broadcast are also fed to the MIDS for access by airline operators for pre-flight planning and in-flight re-planning.

2.4   All WAFS products received from the SADIS broadcast are also put on a separate file server which is accessible via 128 kbps ISDN links to airlines doing centralized operational control in Hong Kong.

2.5   WAFS products received from the ISCS-2 are ingested into the MIDS and flight document fax server for backup purpose in the event that reception of the SADIS satellite broadcast is interrupted. When certain charts are not available from both the SADIS and ISCS-2 broadcasts, attempts will be made to retrieve the missing charts from internet web sites of the U.S. National Center for Environmental Prediction and Australian Bureau of Meteorology, and the fax server operated by the Deutscher Wetterdienst (DWD) at Offenbach. The charts obtained from the internet or through fax polling will then be manually scanned into the MIDS and flight document fax server.

2.6   The MIDS operated by the HKO enables airlines to obtain WAFS products relevant to their operation with minimum investment in hardware, software and training. All that an airline requires to set up and operate is a personal computer with a web browser such as Microsoft Internet Explorer or Netscape Navigator, a printer and a modem. For airlines which do not even want to invest in a personal computer, a fax machine would suffice. On the other hand, high-end users are given access to the full product set as received by the HKO.

3.   Action by the Meeting

3.1   The meeting is invited to note the information provided in this paper.