International Civil Aviation Organization

Eighth Meeting of the Communications/Navigation/Surveillance and Meteorology Sub-Group (CNS/MET SG/8) of APANPIRG

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Agenda Item 12: MET support for operations at aerodromes and terminal areas

AUGMENTATION OF METEOROLOGICAL TELECOMMUNICATION SERVICES AT INDIAN AIRPORTS

(Presented by India)

SUMMARY

This paper presents information on recent augmentation of Meteorological Telecommunication Services at Indian Airports

1. INTRODUCTION

1.1 India Meteorological dept has replaced recently its earlier Automatic Messages switching Systems (AMSSs) at four Indian International airports namely New Delhi, Mumbai, Chennai and Kolkata with latest state of the art AMSSs. These new AMSSs are in operational use for the last one year.

2. IMPROVED FEATURES

2.1 These four AMSSs have following additional features which were not available earlier.

- Opmet Data Bank with remote automatic query from any AFTN centre.
- Reception of Meteorological data through AFTN as well as Global Telecommunication System (GTS) in WMO format.
- Automatic conversion of message format from GTS to AFTN and vice versa.
- Reception of SADIS data.
- GRIB and BUFR decoders for generating prognostic wind/temp charts, and Sigwx charts etc.

- The AMSS is equipped with Flightman workstation for briefing the pilots.
- Automatic generation of flight folders in electronic form containing prognostic wind/temp charts for different flight levels, Sigwx charts , Enroute TAFs, Take-off data etc customized for each flight at predefined schedule.
- Automatic dissemination of Meteorological data/ flight folders to different users like airline offices through e-mail , Fax or FTP
- Any user can take data through dial-up PC - Modem using PSTN lines.
- Fax on demand service.
- Automatic plotting of Surface and Upper air wind/temp charts in A0 size.
- Automatic plotting of T/Ǿ charts for any station.
- Support for Current Weather Display Systems for ATC officers at all the required locations in ATC.

3. TELECOMMUNICATION SUPPORT

3.1 These Meteorological AMSSs are very versatile in handling different communication media and protocols. They can support

- Low Speed T/P circuits from 50 Baud to 300 Baud.
- RS-232 ASCII Circuits upto 9.6 kpbs.
- Medium speed X.25 circuits.
- Upto 128 kpbs lease line TCP/IP circuits.
- Socket Communication through Internet.
- Frame Relay Circuits.

4. TELECOMMUNICATION NETWORK

4.1 Each Meteorological AMSS is connected to AFTN through Airport authority of India's AMSS at a low speed of 50 baud . The Meteorological AMSSs are also connected to RTH New Delhi at 64 kpbs and each AMSS is also being further linked to other National / International Airports within the country at 64 kpbs. The Telecommunication network is shown in the Fig. 1

5. ACTION OF THE CONFERENCE

5.1 The conference is invited to take note of the information contained in this paper.

Meteorological Telecommunication Network for Aviation Services

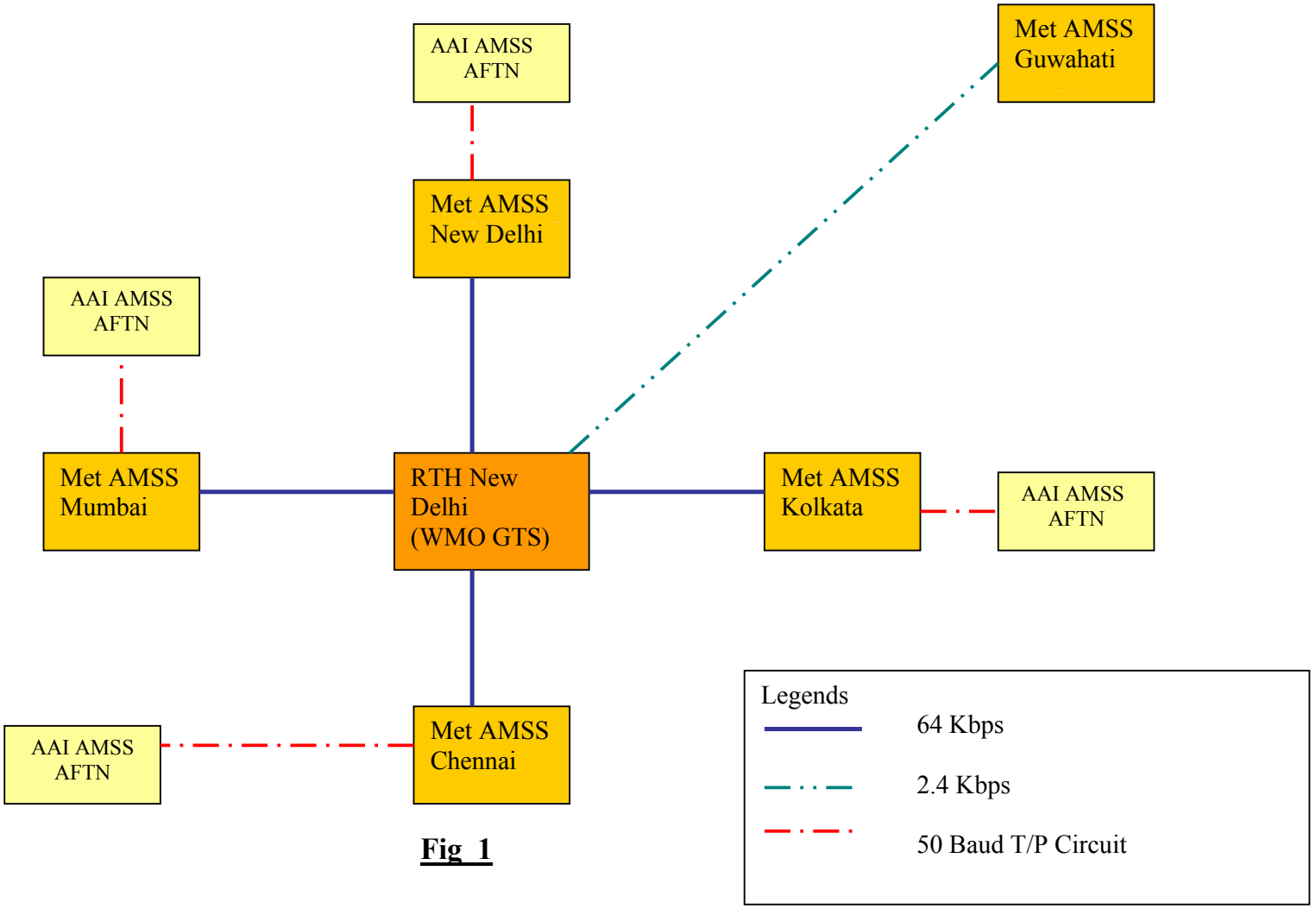

Fig 1