



International Civil Aviation Organization

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

Bangkok, Thailand, 12-16 July 2004

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

LAUNCH OF A NEW SATELLITE BROADCAST SERVICE FOR THE DISSEMINATION OF METEOROLOGICAL DATA AND PRODUCTS

(Presented by India)

SUMMARY

This paper presents information on the recently launched Satellite Broadcast service of Meteorological Data and products by India Meteorological Department

1. INTRODUCTION

1.1 India Meteorological Department has started a new meteorological data and processed products broadcasting service from 1st July 2003 using world Space 'Asia Star' satellite. This is a replacement of the HF broadcast system which has become out dated due to obsolescence of the technology and non-availability of HF transmitters of required capacity. In addition the satellite images of INSAT and KALPNA are also being broadcast which was not possible earlier due to limitation of the footprint of these satellites.

2. THE BROADCAST CONTENTS

2.1 The Meteorological data presently being broadcasted are :

- Indian Satellite Images such as three hourly Visible, Infrared, Colour and Water Vapour images.
- SYNOP, PILOT, TEMP, Warnings etc
- TAF, METAR
- Weather charts and model outputs (30°E to 120°E and 25°S to 45°N)
- Wind/Temp prognostic charts for different levels and Sigwx charts.

3. THE SATELLITE COVERAGE AREA

3.1 The broadcast covers large areas of Middle-East and South-East Asia at a down link frequency of 1492 MHz. The footprint of the satellite is shown in Fig 1.

4. The system details are given in Fig 2. The Meteorological Data/Products are sent from IMD, New Delhi to World Space Server at Singapore through FTP. The Data is up-linked to Asia Star Satellite of World Space for broadcast as per schedule. The Block Diagram of the Integrated Meteorological Data Reception and Analysis system (IMDRAS) is shown in fig 3. The receiving antenna is a small flat strip

antenna or a Yagi antenna with extendable cable and is very easy to install. The received signals are fed to the CRAMM (Continues eceiving and Memory Module) which is having the World Space Satellite's receiving card and I GB of Flash memory. The CRAMM unit is supported by a Non Stop Power Supply with 48 Hrs Backup. The CRAMM unit is connected to the Work Station having customized Software which can be used to visualize the data, satellite images, Weather charts, Automatic plotting of data, analysis and manipulation of data for the benefit of weather forecasters and other users. Printing of selective satellite images and meteorological data and products is also possible.

5. ACTION OF THE CONFERENCE

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

FOOT PRINT

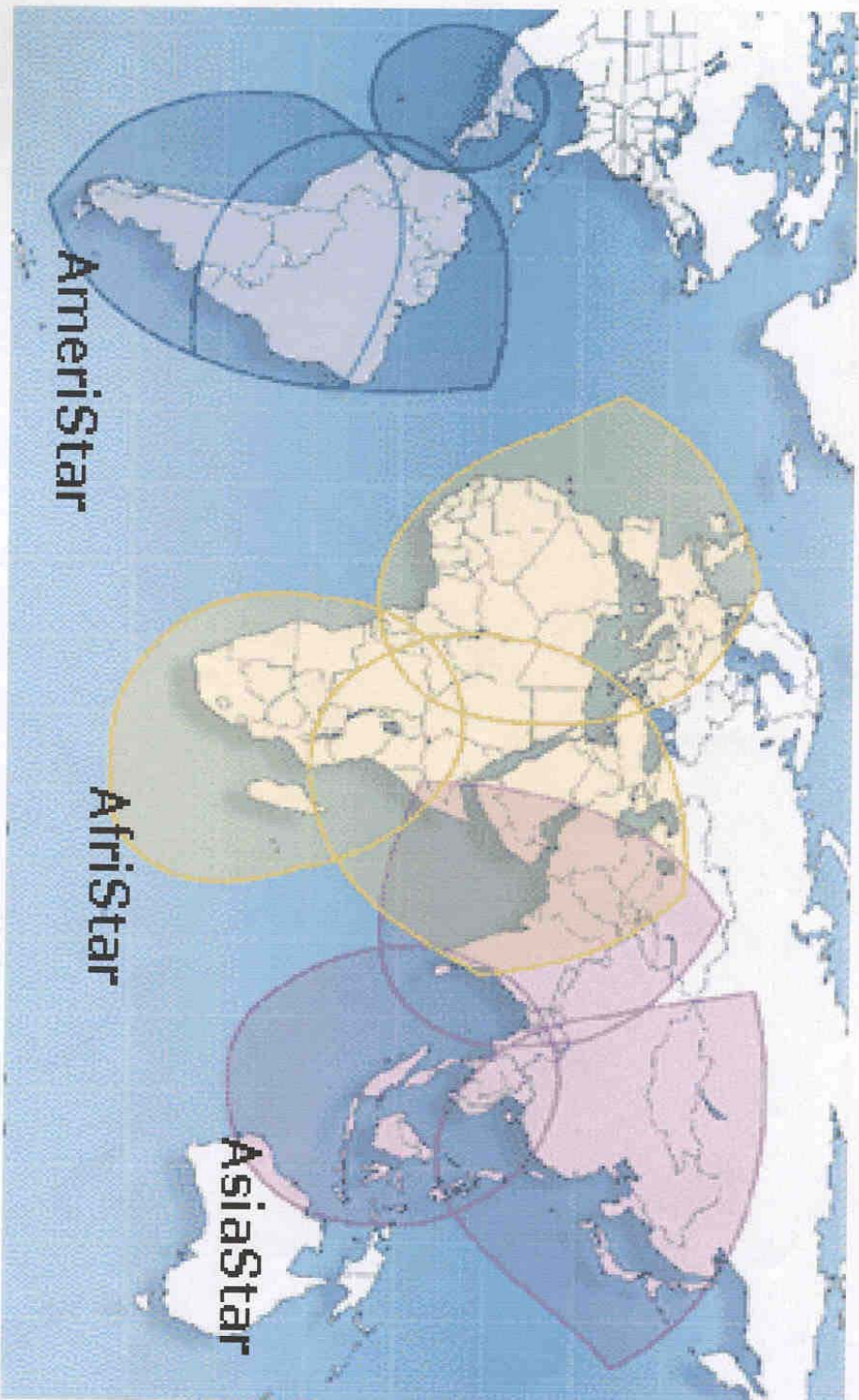


Fig. 1

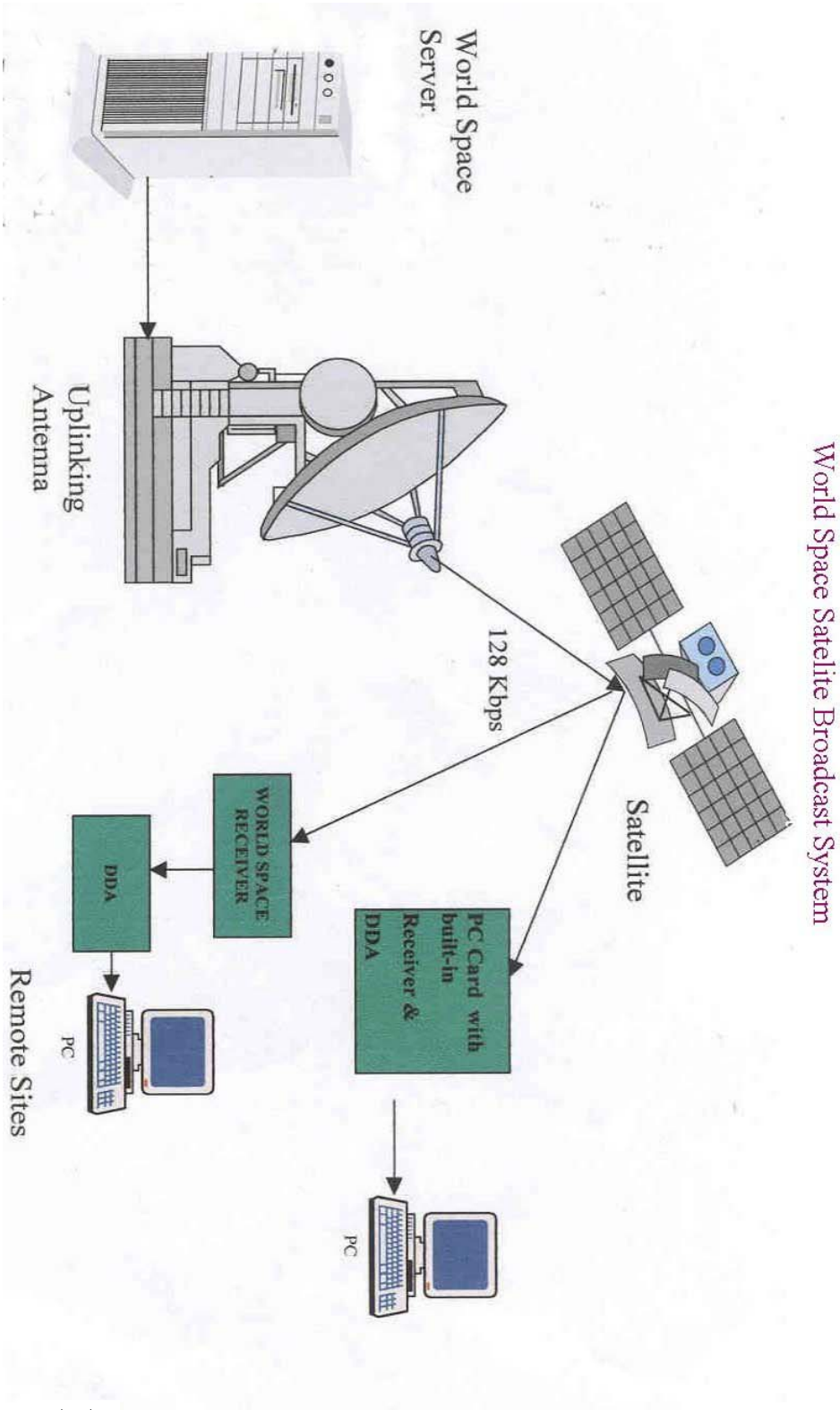


Fig.2