

CGMS BROADCAST FORMAT GUIDE

This document reports on the status of preparation of the CGMS Broadcast Format Guide, in response to Actions 26.12 and 26.13.

DRAFT CGMS BROADCAST FORMAT GUIDE

1 INTRODUCTION

Document CGMS-XXVI-EUM-WP-10 presented a proposal from the Secretariat for a CGMS Broadcast Format Guide. It will be recalled that formats such as APT, HRPT, WEFAX, LRIT, LRPT, HRIT are only available in various user handbooks and/or as CGMS Working Papers. This makes any overview of the latest format information difficult. It was agreed at CGMSXXVI that a CGMS Broadcast Format Guide be established which would include, not only formats commonly used by CGMS members, but would also provide information on planned future image data formats.

Action 26.12 invited EUMETSAT to prepare an outline for the Guide, which was subsequently agreed by all Members by the end of 1998 (see Attachment 1). Action 26.13 invited Members to indicate points of contact and provide inputs by 1 January 1999.

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It was agreed at CGMS XXVI that the CGMS Broadcast Format Guide shall include existing broadcast formats such as APT, HRPT, CHRPT, WEFAX, HRI, GVAR, S-VISSR etc., as well as those formats, which are agreed by CGMS, i.e. LRIT and HRIT. Furthermore, proposed formats shall also be included as soon as they are agreed by CGMS. The guide will, in addition, include global specifications and satellite specific specifications.

3 PREPARATION OF THE GUIDE

CGMS Members are now in the process of providing the CGMS Secretariat with their inputs for the Guide. This information is clearly gleaned from numerous sources and provided in various layouts. In order to ease the task somewhat, it is proposed that much of the basic information in this document should be presented in a simple format for quick reference, an example of which is proposed in Attachment 2, where all important characteristics of a particular broadcast are presented (if possible) in a single table on one page.

Supporting information of more general interest to the users will, however, often have to be included. It is proposed that this will be added as an additional text element, with an overall layout as proposed in Attachment 3.

4 CONCLUSION

CGMS Members are invited to comment upon the proposed content and layout of the CGMS Broadcast Format Guide and those Members who have not already submitted inputs to the Secretariat are kindly requested to send them by the end of November 1999.

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Attachment 2

FORMAT	WEFAX			
1. Broadcast Type	Analogue		Remark : Defined and Co-ordinated by CGMS	
2. Availability	To all users. Near full earth coverage			
3. Characteristics	800 lines of 800 pixels, plus start and stop signals, a phasing signal, digital header and suitable annotation is superimposed on each image. Transmitted at a rate of 240 lines per minute.			
4. Content	24 hour schedule of satellite image formats in various spectral channels from one or more geostationary meteorological satellites and some meteorological products derived from satellite imagery, test formats and administrative messages			
5. Broadcast from	Satellite system	Country	Agency	System Documentation
	GOES-E GOES-W GMS GOMS METEOSAT FY2	USA USA Japan Russia Europe PR China	NOAA NOAA JMA NPOPlaneta/Roshydromet EUMETSAT SMA	EUMETSAT, Ref EUM TD 03
6. Downlink Frequency	1691 MHz nominal 1694.5 MHz (additional Meteosat products)			
7. Reception				
7.1 User Stations	Secondary Data User Station(SDUS-Meteosat) LR-Fax (FY-2)		Typical antenna size 1-1.5m dish, or Yagi Figure of merit G/T 2.5 dB/K	
7.2 Other	Limited amounts of sub-sampled WEFAX images are available on several Web sites			
7.3 Used by	Meteorological services, universities, colleges, schools, commercial companies, amateurs			
8. Typical broadcast schedule	See attached			

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Example of Suggested Layout

2.1.1 WEFAX

Simplified Technical Spec in tabular form (to be agreed) will be inserted here

Supporting Text

(Sample text only) The WEFAX service is designed for analogue transmissions to low cost meteorological user stations within the reception area of meteorological satellites in GSO. The WEFAX service parameters have been defined and agreed by the “Co-ordination Group of Meteorological Satellites (CGMS)”. WEFAX services are operated by the following satellite systems:

- | | |
|------------|------------|
| - GOES-E | (USA) |
| - GOES-W | (USA) |
| - GMS | (JAPAN) |
| - GOMS | (Russia) |
| - METEOSAT | (EUMETSAT) |
| - FY-2 | (PR China) |

The transmission of WEFAX services is in the frequency sub-band 1690 – 1698 MHz. Most WEFAX services have a centre frequency of 1691 MHz. Typical WEFAX reception stations use antennae between 1 and 1.5 m diameter, and correspond to a figure of merit G/T of 2.5 dB/K.

There are thousands of WEFAX reception stations around the world. WEFAX reception stations are used widely by meteorological services, universities, colleges, environmental agencies, press agencies, schools and amateurs. WEFAX reception stations are frequently known as “Secondary Data User Stations, e.g. SDUS (METEOSAT) or LR-FAX (FY-2).

The content of WEFAX transmissions are sectors of satellite imagery, meteorological products in pictorial presentation, test images and administrative messages containing alphanumerical information in pictorial form

The analogue WEFAX service will soon be replaced by digital “Low Rate Information Transmission (LRIT)” service on the next generation meteorological satellite systems.

(Examples of broadcast schedules will be included).