

## **CGMS DATABASE**

*(Submitted by WMO)*

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### **Summary and purpose of document**

To inform CGMS Members of the database for  
satellite receiving equipment

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### **ACTION PROPOSED**

CGMS Members to provide information for the database, as appropriate

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## DISCUSSION

### Introduction

1. The WMO Secretariat has developed and continues to maintain a database that contains information related to satellite receiving equipment. The purpose of the development was to identify the number and geographic distribution of satellite receiving equipment. Some applications of the database include: assisting the WMO Technical Commissions and Regional Associations in identifying where adequate reception equipment or gaps exist, assisting donors in determining where best to allocate resources, assisting the CBS Open Programme Area Group on Integrated Observing Systems in providing advice to CBS on ways to improve the utilization of satellite data, assisting the satellite operators in identifying users, providing an impetus to register satellite receiving equipment with national telecommunication administration, informing WMO Members as to the distribution of receiving equipment within each country, and informing ITU as to the utilization of frequencies allocated to environmental satellites.

### Database description

2. Since CGMS-XXIII held in May 1995, a permanent action item has existed that "all satellite operators [will] provide WMO regularly with information on the number of meteorological satellite reception stations in their areas of responsibility". Since the last meeting of CGMS (July 1998), WMO has updated the database upon receipt of new information from the satellite operators as well as from other sources.

3. The current database is maintained in a Microsoft Access version 7.0 running under Windows 95. The database is made up of tables, queries, forms, reports, modules and macros. The tables store all basic information regarding satellite receiving station; and others such as queries serve as analysis or presentation tools, taking appropriate data from the tables that match given conditions.

4. At present, there are seven tables for satellite receiving equipment: NMHS, Vendors, RIG, Individuals, EUMETSAT, JMA and NOAA. Most of the records in those tables contain the station name, city and latitude/longitude. Some records contain mailing addresses, telephone numbers and email addresses. Each record in all tables contains specific information related to WMO Member name, Regional Association, type of low-resolution receiver (APT or WEFAX) and type of high-resolution receiver (HRPT or HR).

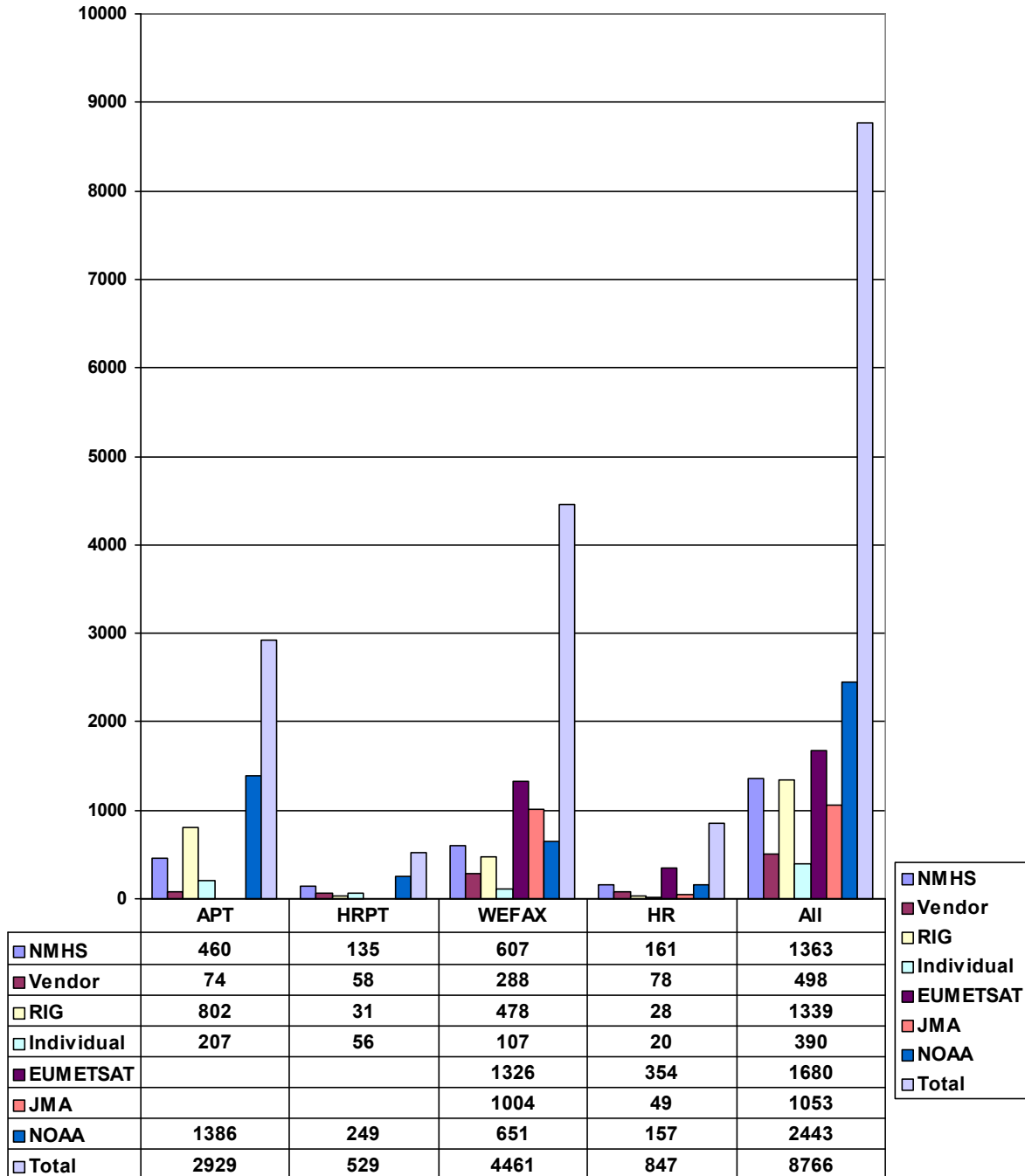
5. Tables 1 and 2 show the number of records contained in the databases sorted by service and by satellite, respectively. There are 8,766 unique receiving stations contained in the database.

6. In order to provide one comprehensive table while protecting restricted information (e.g. mailing addresses, telephone numbers, etc.), a copy of each record from the seven tables has been placed into a new "Combined" table that does not contain the restricted information. The "Combined" table has then been transferred into another database file, labelled CGMSYYMM.mdb (where YY = the year and MM = the month for validity) with appropriate query functions. Only CGMSYYMM.mdb files will be released from WMO. Thus, any restricted information provided by a CGMS Member is not further forwarded beyond the WMO Secretariat. However, statistically and geographical information down to the City level is provided, i.e. not to the street address level.

7. At CGMS-XXVII, WMO will provide a copy of CGMS9910.mdb with the latest "Combined" table to include all station data and all queries necessary to view statistics for the above table. Additionally, WMO has developed a tool to authenticate each record in order to reduce duplicates in the database which will allow one to enter only new data when updated lists of stations are provided by satellite operators. When WMO encounters unresolvable problems in checking the duplicates using the above tool, WMO will seek assistance of the satellite operators to further identify the existing records. Therefore, the continuing CGMS action item to provide new updates

of satellite station data should be maintained and observed. On an annual basis at each CGMS, WMO will provide CGMS Members with the latest database updated as appropriate.

**Table 1**  
**Number of stations sorted by service**



**Table 2**  
**Number of stations sorted by satellite**

