

Status and Problems of the IDCS

NOAA-WP-09 provides a status report on the performance of the International Data Collection System (IDCS). Anticipating the delivery and installation of the DCS Automatic Processing System II (DAPS II), the current monitoring procedures were interrupted several times, and were terminated upon delivery of DAPS II (which is yet to be installed). Due to indefinite delays in the deployment of DAPS II, NOAA is investigating the possibility of running the Channel Interference Monitoring System (CIMS) portion of the DAPS II system in a stand alone mode. As previously noted, a conflict in the addressing scheme makes it difficult for the NOAA to include new addresses generated by EUMETSAT. Some of the addresses generated for the IDCS by EUMETSAT already exist in the NOAA database, assigned to US platforms that have been operating for decades. This conflict was not recognized by the NOAA representatives to the CGMS at the time that the scheme was agreed upon, and has been recognized as a serious problem in database coordination among the satellite operators. NOAA plans to address this discrepancy after the completion and phase-in of DAPS II.

Status and Problems of the IDCS

1. INTRODUCTION

During calendar year 2005, NOAA continued to make advances to improve the GOES DCS service for the environmental community. Projects to improve the DCS service include the transition to High Data Rate transmitters, a technical study for the development of Narrow Band Transmitter specifications and the coordination of design characteristics for a minimal backup of the DCS distribution subsystem.

The transition to the High Data Rate (HDR) transmitters has progressed rapidly, with over 9000 assignments now in the system for 300 baud and 1200 baud transmitters. With approximately 25,000 transmitters assigned, this now comprises approximately 1/3 of the operating GOES DCS platforms. Most transmitters are assigned to 5 or 10 second transmission window, with hourly reporting cycles. NOAA continues to clear the 100 baud channels to make room for 300 baud channels. Of the 200 domestic channels NOAA manages, almost every channel above channel 100, with the exception of the random channels, has been reprogrammed for use by 300 or 1200 baud transmitters. NOAA "borrowed" a block of IDCS channels with the intention to use them as random channels during the High Data Rate transition. With extreme appreciation to the CGMS members and the Secretariat, NOAA would like to thank everyone involved in making this request a reality. However, NOAA would like to return the five (5) IDCS channels to the CGMS community to be used as appropriate. In light of the Indian Ocean tsunami and the earthquake in Pakistan and the West India regions, NOAA believes CGMS can use these resources more effectively. NOAA would like to thank the CGMS members for their hard work and cooperation.

A large user in the U.S. in partnership with NOAA has recently decided to install a Direct Readout Ground System (DRGS) at one of their sites. This will provide a complete backup of the data ingest and Internet distribution systems for the GOES Data Collection System. Our current ingest system is located at the Wallops Command and Data Acquisition Station (WCDAS) in Wallops Station, Virginia, and is a single point of failure. The implementation is expected to be completed in early 2006. If phase I of this development is a success, other capabilities may be added to provide a complete backup for the NOAA systems.

2. STATUS OF IDCS

This document presents a status report on the performance of the International Data Collection System (IDCS). Anticipating the delivery and installation of the DCS Automatic Processing System II (DAPS II) system, the current monitoring procedures were interrupted several times, and were terminated upon delivery of DAPS II (which is yet to be accepted). Due to indefinite delays in the deployment of DAPS II, NOAA is investigating the possibility of running the Channel Interference Monitoring System (CIMS) portion of that system in a stand alone mode.

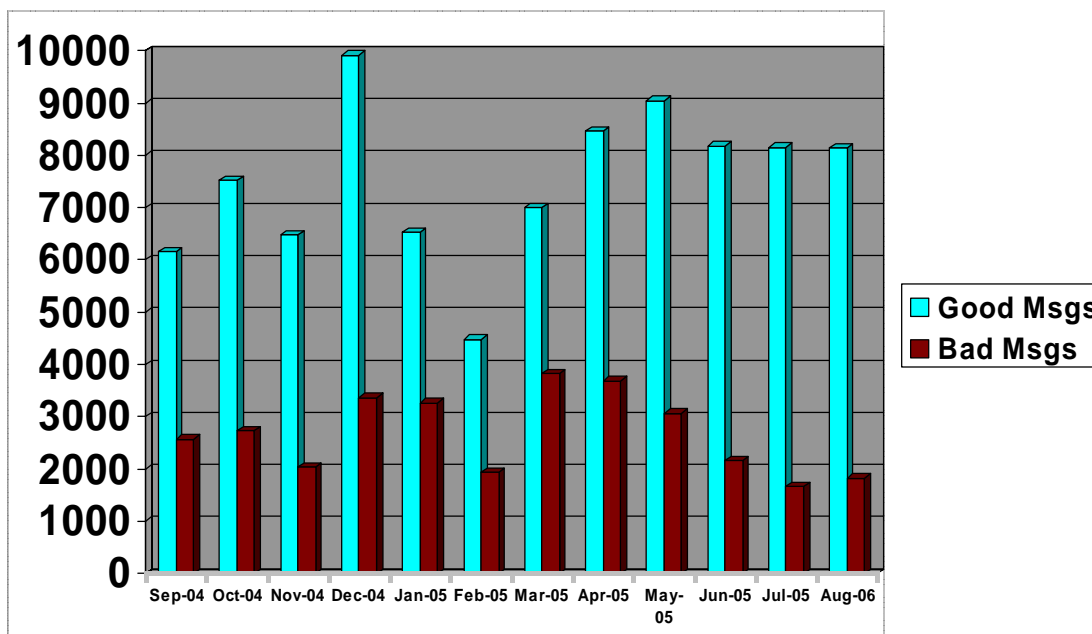
As of the beginning of April 2004, the NOAA database contained only 64 International Data Collection Platforms (IDCPs) active on 11 of the 33 international channels:

Channel #	0	06	07	12	13	14	15	16	17	18	20
# of IDCP	10	09	13	11	1	3	6	1	2	10	8

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The graph below is a summary of the good and bad messages transmitted on the IDCS channels. During the months of September 2004 through August 2005, the totals show a seasonal fluctuation and steady increase in the number of messages.

IDCS Messages



3. INTERFERENCE TO THE IDCS

NOAA is preparing for the installation and checkout of its new DCS Automatic Processing System II. Several subsystems including the Channel Interference Monitoring System (CIMS) were deactivated. Therefore, activities associated with monitoring the IDCS for interference were suspended. However, a new system that will utilize card-based spectrum analyzers is under contract and will be tested at the Wallops CDA Station by the end of the year.

4. CONSOLIDATED LIST OF IDCS ALLOCATIONS

There have been very few new allocations of IDCPS within the past year.

5. CONCLUSION

CGMS members are invited to take note of the status and performance of the IDCS at <http://dcs.noaa.gov/internat.htm>.