

**Dissemination of DCS Messages (GTS or other means)**

**Summary and Purpose of Document**

To provide an update on the assessment of DCP data  
the DAPS via the INTERNET (GTS or other means)

Action Requested: None

## UTILIZING THE INTERNET TO COLLECT DCS DATA

### 1. Introduction

Over the last few years we have seen a growing demand for GOES DCS data collected by the Wallops Command and Data Acquisition Station (CDA). The traditional methods included connections to the Station via asynchronous telephone circuits, re-transmission of data through a leased spacecraft, and dedicated landlines. As technology has matured, so have the methods for the dissemination of data to the users.

### 2. Development and Operation

The Data Collection System has matured through the years. We have seen a much greater demand of the data that is transmitted through the system. In order to meet these demands, we have been actively upgrading the rate that the CDA can receive the DCS user's data. The ultimate goal is to be able to process more data while maintaining the same bandwidth. The system has witnessed a consistent growth as can be seen by the increase in channel usage. A web site ([dcs.noaa.gov](http://dcs.noaa.gov)) has been created so that statistics can be monitored.

There are various methods that the authorized user can access the system to retrieve their data. These methods of dissemination have become more widely utilized in relation to the amount of data that is being transferred.

The primary method of dissemination is through a leased domestic satellite. This link is used to uplink all of the DCS data that is collected at the CDA. In addition there is a method where a request for retransmission of data can be requested. This is done through an Internet or dial-in link at the CDA.

Another method of data dissemination is the Local Readout Ground System or LRGS. This system was developed through a contract with the US Geological Survey (USGS). Their ambition was to develop a network where each node would serve as backup to its neighbor and would receive all of the DCS data. The overall goal is for a network of receive sites located throughout the country to collect and store data via the Wallops CDA DOMSAT down link. Upon receipt the data could be shared over the Internet. The LRGS is client/server software that is easily installed and operated. The user would download a zipped client file, extract it, and run the client. This would allow the user to selectively choose the data they want transmitted and have it "pushed" to the client side. At this point the data could be collected in a file, displayed, or routed to another server. The Wallops CDA site has installed two of these devices, one on the uplink and the other on the downlink side of the DOMSAT transmission. This assures that the DCS data will be available to the users in the unlikely event that there is a transmission or DOMSAT failure. The LRGS operates in several environments: Windows, Unix, etc. The user selects which protocol they want before the download. In addition, loading instructions, manuals, and examples are available. The basic function is in a Graphical User Interface (GUI) form that allows ease of use.

Another mode of dissemination is through a web interface that was developed at the

Wallops CDA. This interface allows users to log onto the system via the Internet and perform the basic functions of the system such as: updating data bases, transmitting their data, or submitting batch jobs. This allows the user to use a Graphical User Interface (GUI) in lieu of the older Command Line Interpreter (CLI) interface.

Dissemination of data is also allowed through the DCS web site. Daily reports are generated and sent to the web server where they are posted. These updates include a large array of files that are used within the system to track the system usage, to provide an aid to the users for their particular platforms, and to see general system loading. In addition the web site allows for a telnet connection that will connect the user to the DAPS system. Through this connection the data base can be upgraded and data can be collected.

### **3. Future Improvements**

On the horizon, we plan to replace the current DAPS with a new and improved system that will provide enhancements for the users as well as the administrative staff. Many of the features mentioned above will be included in the new system. This system will be delivered and tested in 2002. At that time we will see more internet interfaces, better GUIs, expanded use of E-mail notification to the users, better use of “push” and “pull” techniques to move data, and use of FTP. As part of this, the new system will have improved security and configuration management.