

CGMS XXIX
USA-WP-12
Agenda Item: F4
To be discussed in Plenary

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

As a result of the greater demand for our data, we have looked at several new avenues for the dissemination of that data. The first is through 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.

The second 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 new application is still in Beta testing; however, we are seeing users convert to the new site simply because it is GUI based and easy to use. The real advantage is that the user no longer needs to rely on the command line interpreter (CLI) interface; but instead, may use the GUI to avoid the one line command suite. This has been very popular with the DCS community.

The third improvement to the dissemination system is the DCS web site. The DCS site is public and is updated daily through an automated FTP service. 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

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.