

April 20, 2000 E/SP3:JW

MEMORANDUM FOR: GOES Data Collection System (DCS) Users

FROM: Kay Metcalf
GOES DCS Operations Manager

SUBJECT: Minutes of the 91st GOES DCS Technical Working Group
Meeting, March 8, 2000

I. Opening Remarks - Kay Metcalf, DCS Operations Manager (NESDIS/DSD)

The 91st meeting of the DCS Technical Working Group (TWG) was called to order at 9:00 a.m. at the Main Auditorium of the U.S. Geological Survey. The meeting was hosted by the USGS with Ernest Dryer as coordinator. The TWG was well attended with members from the United States and from Canada.

Welcoming remarks were given by Kay Metcalf who is the NOAA/DCS Operations Manager. Kay, on behalf of the DCS/TWG thanked Ernie and the USGS for hosting the STIWG and TWG meetings. Kay introduced the DCS Internet Web site as the central location for meeting information and TWG minutes. The site URL is <http://noaasis.noaa.gov/> and then select the DCS option.. Kay invited members to review the TWG minutes via the web site.

Ernie Dryer next introduced the TWG to the USGS facilities and the Reston, VA area in general.

Kay Metcalf next reviewed the meeting agenda.

II. NESDIS Report

a. Y2K Update - Al McMath (Wallops CDA)

Al reported that the new year proceeded smoothly for the DAPS with no problems to report, and no data losses. He thanked all the users who helped make the transition a success by testing the system functions. Al then briefed the users on outstanding DAPS issues on which he is working. He has received the new Improved Test Transmitters (ITT) which include 300 and 1200 bps service, but they were not compatible with some of the DAPS Y2K software patches. Al and Mike Maloney, working for a week, were able to debug the system software and get one ITT online and functioning well. Al said that the CDA is now into a third generation of Telnet

transfers using a firewall for security. As a result, use of dial-in access to the system has been reduced substantially. Al reported that he has installed a copy of Ernie Dreyer's DRGS software on the DAPS and is looking for users to function as beta testers. Anyone who is interested should contact Al at the Wallops CDA.

b. DAPS II Update - Warren Dorsey (NESDIS/OSD), and Al McMath (Wallops CDA)

Warren demonstrated the NOAA/NESDIS DAPS II procurement web site : <http://www.osd.noaa.gov/daps/> . There is a wealth of information in the form of DCS documentation that users could find interesting included at the site. Warren gave a brief history and status of the procurement. The contract award should be finalized by the end of this fiscal year, September 30, 2000.

c. Wallops CDA - George Linville (Wallops CDA)

George reported that the CDA has acquired a new set of DAPS back-up disks to be used as needed. Vitel has delivered both of the new Improved Test Transmitters called for under the High Data Rate (HDR) contract. The new 300 and 1200 bps demodulators are in their racks and functioning. HDR training for Wallops operational personnel was completed during January and February. George also reported that they were experiencing some interference problems due to the current eclipse season. Wallops has also noticed log-off abuses, but expects that the problem will be resolved by new hardware and software currently on order. There are two hurricane proof antennas being installed at the CDA, and installation is scheduled to be complete by the end of this summer. George also mentioned that there had been a test of CDMA transmission within the DCS band at Wallops during February.

d. Spacecraft Status - Bob McCoy (NESDIS/SOCC)

Bob reported that users should feel free to contact Mike Settles of SOCC at (301) 457-5135 whenever they have questions regarding the NOAA spacecraft. Bob also said that users could go to the SOCC web site at <http://www.osd.noaa.gov/index40.htm> for up-to-date satellite information. He reported that GOES-L is scheduled for a May 3, 2000 launch, and that the next Polar launch is scheduled for August 2000. Bob next told the group that he will be retiring and this will be the last meeting that he will attend. All members gave him an enthusiastic ovation. Bob will be missed by everyone. He has been a very valuable and supportive member of the DCS.

e. High Data Rate Ground System - Warren Dorsey (NESDIS/OSD)

Warren first described the work that Phil Whaley and the Wallops CDA staff had done to bring the GOES East Pilot into conformity. He went on to say that the Vitel certification test sets were ready for final delivery to the CDA. Warren presented a cost breakdown and history of the HDR system. He reported that both the 300 and 1200 bps demodulators have all been delivered and are rack mounted at Wallops. He described future work that needs to be done in order for the

current DAPS to successfully monitor high data rate processing. The present system is satisfactory for HDR testing, but needs tuning in order to perform as an operational high data rate processor. He next presented a brief discussion of the HDR Certification Standards format. In reviewing the HDR development, he pointed out that Vitel had exceeded the required 63 symbols for synchronization by doing in only 3 symbols which conserves system space. There followed a discussion of how it may be possible for 100 and 300 bps demodulators to share the same DCS channel. Wallops will do some testing to see if the sharing does indeed work. There are differing opinions on whether or not the DAPS will support the scheme. Kay explained the need for the 100/300 sharing of individual channels in order to effectively expand system capacity. The question of International channel usage and availability was briefly aired. These are being reserved for international use due to agreement with the Coordinating Group for Meteorological Satellites (CGMS). Ernie Dryer made a request for generation of reports showing a summary of DCS channel utilization. In this way, users who are not actively using their assignments can be identified. **He also requested a annual report of usage. This was taken as an action by Kay.** Warren then continued by discussing usage philosophy for the 1200 bps HDR channels. For instance, was the original intent of having 1200 bps channels just to support random and experimental applications? He then discussed the fail safe aspects of DCPs. He said there is a required 4.5 minute time-out on 100 and 300 bps service which is determined by the DAPS buffer size. Mark Heggli commented to Warren on the need for more frequent DCP transmissions, for instance in the case of a dam failure. Warren explained that it is determined by a combination of the hardware implementation, and the DCS software management policy. **There was an action to NESDIS to look at the NESDIS fail safe policy.** This is to also to include a determination of restrictions on successive DCP transmissions. Warren then gave a briefing on the HDR certification test set policy. There are two sets. One is to remain at the Wallops CDA ready for any manufacturer that will travel there for testing. The other will go to manufacturers as they demonstrate the need for it. Dane Clark suggested that the certification test set procedures, and use policy be displayed on the appropriate NESDIS Internet site.

III. USGS Report - Mike Noris (USGS)

Mike Noris presented a special report on the USGS's Stream Gauging Network. The network, which began in the Western United States, now consists of more than 7000 stations in the U.S., with 60% reporting in real time. The network has over 800 funding members. The stations report with an accuracy of 0.01 ft. every four hours, and would like to have more frequently reporting DCP capability. Some of the applications are for flood hazard planning and warning, reservoir operation, water quality, and streamflow. More information can be found at their web site <http://www.usgs.gov/>.

IV. Satellite Telemetry Interagency Working Group (STIWG) Report - David Wingerd (HQ/USACE).

The new STIWG Chairman, Dave Wingerd, reported that the High Data Rate Certification Standards would be revised by March 15, and that the HDR test sets are completed and

operational. There are two more test sets to be built to allow a more free distribution of the sets to DCP manufacturers. He then reviewed the STIWG's function as "Honest Broker" for the vendors in the certification standard's matters. The STIWG has been gathering questions and answers for the vendors in the area of HDR standards. He announced that Cy Settles has been engaged to render a "second opinion" on the HDR standards. Dave reported that the availability of NOAA Port Lite had been presented to the STIWG. This telecommunications system would be an alternative to the DOMSAT link. He then reviewed the positive and negative aspects of using the Lite system. It was announced that Larry Cedrone would chair a meeting that would generate an approach to DCP data standardization. Any advances in this area would promote easier decoding of the data.

V. New Business

a. Franklin Board Substitute - Ernest Dreyer (USGS)

Ernie Dreyer presented a briefing explaining that he had developed a replacement for the Franklin board. He described his software as using JAVA, and LINUX, in an approach to open systems architecture. He has a CORBA interface that allows LRGS integration. This also allows data interchanges between user work stations. Development work has been done for him by Mike Maloney. Ernie said that the system is to have a Graphical User Interface. The software will also run on the Franklin Board. He announced that Al McMath has installed the software at the Wallops CDA, and is seeking beta testers for the system. This concept will provide a means of data distribution outside of DOMSAT. Ernie will have a web site which will furnish the necessary client software for interested users.

b. HADS Web Site - (Larry Cedrone (NWS))

Larry Cedrone demonstrated his comprehensive DCS hydro meteorological data web site: <http://www.nws.noaa.gov/oh/hads/> . Larry emphasized that the data are presented in user physical units, but they are not quality controlled, and that users of the data must keep that in mind.

VI. User Reports

Various users presented information on the number and use of DCPs in the many applications that are characteristic of the DCS.

VII. Data and Time of Next TWG meeting

The next TWG meeting will be during held on July 19,2000 in Portland, Oregon, with Wallops, VA scheduled for November, 2000.