Minutes of the Austin, TX 118th STIWG Meeting, May 8, 2014.

I. Opening Remarks and Administrative Issues – Dan Schwitalla – STIWG Chairperson - USGS

The meeting was held at the USGS Texas Water Science Center Office in Austin, Texas on Thursday, May 8, 2014. The meeting began at 8:30 A.M. Dan Schwitalla of the USGS chaired the meeting. A brief review of the last meeting that was held in Boise, Idaho in May, 2012 was made. Minutes from the last meeting can be found at http://www.noaasis.noaa.gov/DCS/htmfiles/twg_archive.html and at http://acwi.gov/hydrology/stiwg/Meetings/index.html. There were 20 present that signed the attendance sheets.

II. Role, Position, and Representation of the STIWG.

Dan brought-up the current list of STIWG members found at the USGS membership site: http://acwi.gov/hydrology.old/stiwg/Members/index.html. An informal review followed as to whether the list was up to date or not. Dan mentioned the upcoming meeting in Washington, DC and asked for a volunteer to attend the meeting. After some discussion, it was decided that Dan will instead send some written documentation. There was a review of the next STIWG officer rotation and it was agreed to keep the rotation as it is. The USACE is to furnish the Chairperson for the next year.

III. STIWG Review of DCS Vendors

IV. Government Cooperation in Upgrading/Repairing Equipment.

The issue of conversion of transmitters from CS1 to CS2 in-house resurfaced. From Boise meeting two years ago some have decided to do the conversion in house. However, the members that are qualified are short handed and might not be able to accept outside work. One member remarked that it take $750 and six weeks for conversion. With the in-house conversions ongoing Kay was asked to keep a performance record. Users are working with vendors/manufactories in these transition phases.

V. STIWG Business

Dan Schwitalla will write a funding letter in support of DOMSAT and EDDN. A discussion evolved about how agencies have to jump through hoops to get any funding. The question of whether or not to require two way communications for DCP applications some time in the future was debated. It was pointed out that Iridium is here but that DCPI/DCP Command could be 3 years away. There was a further question about whether DCP power could be controlled remotely using two-way communications or not. Apparently, more vendors are starting to develop Iridium/cellular applications. It was argued that it should be up to the individual user as to which if any DCPs would need the remote two-way capability. There was a good discussion around the question of the cost to complete the DCP Command project since DADDS already has some of the functions that would be needed by a DCP Command. But it was said the Wallops CDA would need a DADDS interface and transmitter.

The question of how to proceed on DCP Command led to a lively discussion because there was strong interest by many of the STIWG members. A vote was held with the majority in favor of proceeding with the DCP Command project. Some operational standards for two-way DCP communications will have to be established such as a requirement to respond within 24 hours if a DCP becomes rogue. It was emphasized that Iridium must be acquired through a reseller an not directly. Some of the STIWG members are migrating to Iridium service. There were some concerns expressed about various protocols that are in place that may be proprietary. Additionally it was said that there is a significant latency with Iridium of up to half a minute.
STIWG members promised to investigate funding transfer mechanisms.

Action: Kay will generate an RFI for the DCP Command/DCPI Project.

EDDN - Dan Schwitalla (USGS)
Dan reported that his EDDN budget was $55k for EROS/EDDN; plus between $10-$12K and possibly up to $20k for Microcom. Dan requested any contributions members could give to help with the cost of keeping EDDN operational. Members can contact Dan to handle the funding transfer.

DOMSAT - Kay Metcalf (NESDIS)
Kay reported that DOMSAT is funded for the next 6 months. She has $30k available with another $30k that is soon to be available and still anther $5K in the background to use. The current contract has nine more option years and the contract is flexable enough that it can be stopped anytime. She estimate that she has sufficient funding in house for 4 more months so the service is okay for the next 9 to 10 months, therefore FY 2014 is covered.

DCS Binary Format
It was reported that there are some conflicting areas within the binary format progress. There are apparent differences in the respective contractor compression designs. It was suggested that the vendors (e.g. Sutron, Microcom, Signal Engineering) produce a prototype to demonstrate their approaches. The possible transmission of pictures/video within DCS was mentioned using a binary format. One member questioned if the effort to implement a binary format is worth the benefits. There was an estimation of about a 25% improvement in data transmission efficiency using a binary format. A thought was to go to the vendors to see if they would like to carry on the work to prove their approach. The binary report that is available at the USGS/EDDN web site was referenced http://eddn.usgs.gov/binarytransmission.html as a source for the current binary status. eddn.usgs.gov/binarytransmission.html.
Action: Dan Schwitalla to send a high level information request to three vendors for a list of pros and cons and general information on the binary format. This should include requirements and necessary changes to user equipment.

Closing Comments
Kay Metcalf pondered whether to pursue solutions to any recurring Atmospheric Solar Scintillation Problems. Possible remedies were mentioned such as using a different

antenna or more satellites. However, Kay said that there was only a small amount of data that was being lost. The experience of pointing an antenna between the two GOES satellites and the relative success by doing so was reported. It was also commented that it only required a fairly easy demodulator software change to receive east or west satellite data.

Future Meetings

It was decided to have "in person" STIWG meetings once per year and have teleconferences as needed. The next in-person meeting is to be in April 2015 in the Washington, DC area about the time of the NOAA Satellite Conference.

STIWG Action Items.

Action: Kay will generate an RFI for the DCP Command/DCPI Project.

Action: Dan Schwitalla to send a high level information request to three vendors for a list of pros and cons, and general information on the binary format.