**Strategic Planning Meeting Minutes/Report**

**Boise, ID: May 3, 2012**

A DCS Strategic Planning Session met on Thursday, May 3, 2012 at the National Interagency Fire Center (NIFC) in Boise, Idaho. Kay Metcalf, the NOAA DCS Program Manger lead the meeting. Kay was assisted by Letecia Reeves of NOAA and Jim Wydick of SSAI. A list of the projects that were generated in the last Planning Session that met in Birmingham, Alabama on October 19, 2011 was projected for viewing by all of the attendees. The original project list is included as an attachment to this report. The entire list of 14 projects that were categorized as priority or non-priority was surveyed. The meeting goal was to decide on a list of the top five prioritized projects. The non-priority projects (10-14) were discussed first. The item numbers correspond to the original list that was generated at the Birmingham meeting and serves as the reference set.

The first of the non-prioritized projects that attendees focused on was:

12. **Time reference based on ground transmission**

Time stamping of DCS messages is currently referenced to the receiving station. Due to travel time - from DCP to satellite and satellite to ground station - the time stamp is approximately 0.25 seconds later than when the transmission began at the DCP. Since DADDS will send out an informational message when a transmission is outside its assigned time window, it was thought that it would be better to reference timestamps to the DCP; i.e. account for the travel time. It was pointed out that an algorithm could be developed that could accurately determine the travel time based on the DCP's location; assuming this information has been properly entered into DADDS. Using this algorithm, the time stamps could be offset by the calculated travel time to the receive system. There was agreement within NESDIS and Microcom Design for Microcom to use the DAMS-NT to test out this method as part of the Version II (CS2) tasks. Initially, the DAMS-NT would be updated to allow for a fixed time offset to be subtracted from each time stamp to account for the approximate transit time. A travel time correction value will be included in the DAMS-NT Preferences so it can be readily adjusted for testing. Setting this preference value to 0 would be equivalent to the current method, which determines a time stamp based only on when the DAMS-NT receives that message. While this test approach would not account for the DCP's location, it will provide for a more accurate time stamp then the current approach. There was unanimous agreement to change this project to a priority level from a non-priority one.

The next non-priority project was:

13**. Policy Elements (More Frequent Transmissions)**

The desire for more frequent DCP transmissions was the foremost policy issue that was mentioned in the Birmingham meeting. DCS users questioned if reporting times could be reduced to less than 5 minutes. It was then pondered as to why would anyone need more frequent than 5 minutes. It was replied that some researchers would not mind having more frequent intervals. NESDIS explained that the random channels would probably fill the need without having time slots filled full-time. It was summed up as a conflict between current needs and planning. The DCPI/DCP Command would provide a way of alleviating the problem. NESDIS can make provisions for less than 5 minute intervals in exceptional cases.

The last non-priority project considered was:

14. **Data Retention Policies**

There was a desire expressed at the Birmingham meeting to explore the possibility of extending the number of days that DCS data are retained. It was reported that the current data retention is 30 days. Microcom informed the group that they periodically back up their data but not on an operational basis. The do a 30-day retention every 6 months. There was a comment that this seems like a Wallops type of task.

**Action:**  Kay Metcalf will send an email to Debra Braun of NCDC requesting that 30 days of DCS data would be collected every month and saved. The data would be free to all vendors who have a need for it. Debbie will seek approval from the NCDC.

It was emphasized that the data would be for forensic purposes (as a backup). Backup data policies were further discussed. There was a proposal for a 2 year data backup with off-site storage along with a copy. It was further propose that a 20 year archive be consider for the future.

It was decided to elevate this issue to a priority classification.

The first of the original high priority items to be considered was:

**1. Binary Transmissions**

A binary message data format has been discussed for years. Comments have been collected and assembled at the EDDN DCS web site. Suggestions from the Birmingham meeting included the consideration of message data field compaction, header change and the desire to have previous comments integrated into a single document.

The Boise discussion of how to move ahead with a binary format development began with a vendor request to know what format is desired for them to follow in developing a project to implement a DCS binary message format. Other vendors repeated their differing points of view as to how to proceed and compared to existing formats such as Pseudo-binary, ASCII, etc. The potential of using a Reed-Solomon Code was also mentioned. Microcom added that the existing demodulators are already capable of receiving binary data. There were differing points of view as to whether the DCS users really cared about which format was used. Each (at least three) vendors had three different approaches to a binary format. Kay Metcalf queried the attendees for anyone that would like to lead the project. It was agreed that the current demods would be capable of handling binary data, but there was concern expressed over how users would handle the data. There was a vendor suggestion to form a DCS subcommittee to manage the effort. There was a recommendation for Dan Schwitalla to lead the work, but with support from other DCS members. Potential members of a future subcommittee were the USGS, ACE, and NOS. Their work will be to review the 3 possible approaches, generate a report and recommend a choice with which to proceed.

**Actions:**

1. Dan Schwitalla (USGS), the ACE, and the NOS will appoint persons for the Binary Subcommittee. The subcommittee is to have their comments by the end of July 2012.

2. Vendors are to review the recommendations for practicality. Suggested reviewing vendor members were to be Mike Maloney (Cove Software), Duane Preble (Microcom Design), Mike Nelson (Design Analysis), and John Thompson (Signal Engineering).

The second of the high priority items was:

2. **DCPC/DCPI (DCP Command)**

A major concern that was stressed at the last meeting was the possibility of losing the use of this portion of the GOES transponder if this service continues to be unused. There is the need of getting on a funding list in order to implement this function. The work is effectively stalled at this time due to funding needs. It was mentioned that the STIWG was to write a letter detailing the importance of this project to NOAA. Next, a brief review of the history of the endeavor was presented by Kay Metcalf and Mark Bushnell. Mark described the 3 development phases of the SBIR (<http://www.sbir.gov/>) project. Richard Pardee will lead in completing the existing command list. It was suggested that not many users would be using the function to remotely reprogram their DCPs. It was also stressed in discussion that there is a need for the systems to be low power and economical (less than $1000) to get users to buy them. There was also a suggestion for asking for GOES-R funding.

There was much discussion about Iridium and it was reported that a new version of the Iridium System is due by 2015. There followed much discussion of using an RFI aimed at completion of the system and what would actually be asked for in the RFI. It was suggested that what was needed was a design idea for building a ground system. Also the need for the suite of commands that would be available was stressed. The idea of using DADDS for management of a DCP command system was posed.

**Action:** Rich Pardee will circulate the command list to STIWG members and get comments. He will forward the command list to Jim Wydick for posting on the NOAA DCS web site.

Members were reminded that Paul Tippett had presented the command list at a past STIWG meeting. Vendors need to know the potential market for the units prior to committing to building them. It was also suggested that vendors be asked to estimate what they think the cost would be to complete the DCP Command System. There were widely varying cost estimates during the discussion period.

The third high priority item considered was:

**4. DADDS Automated Batch Processing**

This item was a very popular one at the Birmingham meeting but does pose some obstacles in implementation due in large part to security regulations.

Kay Metcalf told the meeting members that NOAA security is preventing this task from moving forward at this time. Member and vendor opinions were that the function is an easy one to accomplish and should be done.

**Action:** Debra Braun will talk to her (NCDC) NESDIS security people to see how the function can proceed. She will also talk to John Sanns, the Wallops CDA security head. Debra, Bryan Jackson, and Arthur Armour will meet to accelerate the action.

The fourth high priority item considered was:

**6. DADDS ENHANCEMENTS**

Kay Metcalf reported that this task was progressing.

The fifth high priority item considered was:

**7. VERSION II /CS2 TRANSITION (**Narrow Band Transition).

It was commented that the transition plan is almost compete. The expiration dates and the presentation for those dates can be found in the Boise TWG Minutes and Presentation located at <http://noaasis.noaa.gov/DCS/htmfiles/twg.html>. The issue of allowing users with competent technicians to be allowed to do their own software upgrades instead of returning to the vendors was given intense discussion. It was discovered that the requirement is a NOAA/NESDIS dictate and is not part of the Version II Standards. Attendees indicated that a policy needs to be determined that will allow user in-house upgrades that will satisfy NOAA, vendors and the technical needs of the system. It was concluded that vendors and users will have to work together to achieve an acceptable set of procedures whether for circuit boards or simply firmware. Kay Metcalf was given the task to review NOAA’s position on this and determine the best way to proceed.

**Action:**  Kay Metcalf to review NOAA’s position on whether or not to allow DCS User technicians to perform DCP upgrades without returning to the manufacturer. Also, Kay will determine the best way to proceed based on the NOAA position.

The fifth high priority item considered was:

**8. EXPAND PHYSICAL SHEF/ELEMENT CODE LIST**

It was reported that this is an ongoing task; and that Bryan Jackson and Jesse Gray will continue working the project and circulate the results to the STIWG members.

**Addition of New Projects**

Jim Heil of the NWS suggested the addition of two more projects to the original list:

**15. Revision of the DADDS Website**

It was said that the site needs to be updated and some of the existing matter removed.

**16. Generation of DADDS Training Material**

It was recommended that a DADDS training session could be arranged at the next STIWG and TWG meeting site (Virginia Beach, VA in October 2012).

These two new items were added to the Planning Session Project List which is attached for reference.

Additionally, Jim Heil recommended that Kay Metcalf generate a letter to emphasize the cut-off date when NESDIS will no longer process 100 bps data that he could forward in support of the need for upgrading to HDR.

**Action:** Kay Metcalf to generated a letter or equivalent that emphasizes the date on which NESDIS will no longer process low rate 100 bps data.

**Summary of Actions**

**Action:**  Kay Metcalf will send an email to Debra Braun of NCDC requesting that 30 days of DCS data would be collected every month and saved. The data would be free to all vendors who have a need for it. Debbie will seek approval from the NCDC.

**Actions:**

1. Dan Schwitalla (USGS), the ACE, and the NOS will appoint persons for the Binary Subcommittee. The subcommittee is to have their comments by the end of July 2012.

2. Vendors are to review the recommendations for practicality. Suggested reviewing vendor members were to be Mike Maloney (Cove Software), Duane Preble (Microcom Design), Mike Nelson (Design Analysis), and John Thompson (Signal Engineering).

**Action:** Rich Pardee will circulate the command list to STIWG members and get comments. He will forward the command list to Jim Wydick for posting on the NOAA DCS web site.

**Action:** Kay Metcalf to generated a letter or equivalent that emphasizes the date on which NESDIS will no longer process low rate 100 bps data.