

## ASOS OT&E TRG Meeting

December 15, 2011

### Attendees

<b>NWS Headquarters, Silver Spring, MD:</b>	<b>U.S. Navy</b>
Joe Fiore OPS24	Ron Heatherdale
Hak Kim OPS23	
Toni Remy OPS23	
Rick Parry OPS22	<b>U.S. Air Force</b>
Khien Nguyen OPS24	Robert Beebe
Greg Dalyai OPS12	
Thomas Renegar OPS12	<b>NCAR</b>
Joe Devost OPS12	Scott Landolt
Sergio Marsh OS7	
<b>NWS Regions and WFOs</b>	<b>FAA</b>
Jim Durr Alaska Region	No Participants
Tom Townsend Central Region	
Bob Brashears Central Region	
Bruce Cromell Eastern Region	
Dave Eckberg Eastern Region	
Mike Esip Eastern Region	
Matt Ferrell Eastern Region	
Tim Rutkowski Eastern Region	
Dean Covais Eastern Region	
Dave Evers Eastern region	
John Bush Pacific Region	
David Meek Pacific Region	
Adam Mathis Western Region	
Southern Region – no participants	

On Thursday, December 15, 2011, the National Weather Service Test & Evaluation Branch (OPS24) and Software Branch (OPS23) hosted the ASOS V3.05 OT&E TRG Meeting.

The purpose of the meeting was to discuss the status of V3.051 ST and plans for limited V3.051 OT&E, any Test Trouble Reports (TTRs) from V3.501 ST to date, and an update on Phase 1 V3.05 OT&E.

## **Discussions**

Joe Fiore led the meeting and began by reviewing the status of V3.051 ST debug load. To date, there are nine procedures for this debug load. Six of the procedures have been tested at Sterling and all six have passed. The remaining three procedures still need to be tested. One watch item was identified – when one or two pressure sensors are deconfigured the altimeter is supposed to go missing on the one-minute screen but it did not go missing for over 1 ½ hours on ST0 at SFSC. This only happened one time and could not be duplicated. Therefore, it has been placed as a watch item. Next, Joe informed the group that in previous system tests (STs) the test team cold booted the ASOS systems under test several times, which may be why some of these issues found in the field (TTR – 295 – Pressure Missing) were not caught before operational testing (OT&E). In future ST's, ST1 at Sterling will run continuously without cold booting or warm booting to try to catch any problems that take time to appear.

If V3.051 passes system test then it will be installed at a limited number of sites. V3.051 ST should be complete by 12/23/11. Austin, Texas -ATT will be one V3.051 OT&E site since it already has a data logger. Other sites for V3.051 will include DMH – Science Center, Baltimore, MD in the Eastern Region, and ANJ - Sault Ste. Marie, MI in the Central Region. After the New Year, SFSC will send a data logger to DMH and ANJ, and DMH and ANJ will install V3.051 to help test the V3.051 debug load.

Bob Brashears mentioned that the MIC from the Gaylord, Michigan (APX) WFO has a workload concern about calling the FAA to issue a NOTAM when the software is out of service then having to call back to retract the NOTAM once the pressure sensors are restored remotely by the TEC. APX is considering pulling V3.05 software from their sites, and reverting V2.79Y due to the workload. Greg Dalyai stated that we must have V3.05 fielded in order to collect data to help fix TTR 295 in V3.05. Bob Brashears suggested that the FAA could possibly mention software testing in the NOTAM. Bob also reminded everyone that during the holidays there will be a moratorium beginning 7 PM Friday, December 16. Tom Townsend stated that this wording of the NOTAM issue should be clarified between NWSHQ and the FAA.

Greg Dalyai questioned whether the pressure sensor problem (TTR 295) could be a memory corruption problem and if there is a way to partition the memory area. Hak Kim said that the memory area is partitioned for several of the ASOS sensors, but it is not likely that this is the problem with this software load. It is anticipated that V3.051 debug load will identify the problem and what type of data is coming in during the moment of failure. If this debug load doesn't fix the problem then OPS23 will complete development of debug load #2 which will archive all pressure data.

Joe Fiore gave an update on the current V3.05 site list. The current site list can be found on the OPS24 website at [http://www.nws.noaa.gov/ops2/ops24/documents/asos\\_v3.htm](http://www.nws.noaa.gov/ops2/ops24/documents/asos_v3.htm) then click on the drop down area under “Miscellaneous Documents”. Three new “O”

and/or “D” sites have been added which brings the total up to 12 sites. The three new sites are the following:

- GDP, Guadalupe Pass, TX
- NYC, Central Park, NY
- P28, Medicine Lodge, KS

Joe reiterated that it is important to have several sites participate in OT&E to ensure the software works before going out nationally to all ASOS sites.

Joe also informed the group that a waiver has been granted to allow the TEC to dial in remotely to clear the pressure sensors by remotely toggling report processing OFF and ON.

The next agenda item was to remind everyone that dates for the first test of the 12 character strong passwords is scheduled for January 10 - January 26, 2012. The following is the schedule for each of the regions:

Eastern Region – January 10  
Alaska Region – January 11  
Southern Region – January 18  
Central Region – January 24  
Western Region – January 25

The password change will be set up the night before the scheduled date using a script file to change the passwords. Jennifer Dover and also the AOMC will work closely with each region. All regions will use Proof Point software to decrypt the passwords. This password change process is a Critical Test Objective for V3.05 OT&E.

Joe informed the group that the TTRs are the same, no new TTRs to report. There is only the watch item from V3.051 ST mentioned above. Joe and Rick Parry brought up another issue regarding AO1 and AO2 sites. Last week CDJ reported that they found it strange that ASOS was marking the precipitation accumulation (from the AWPAG) with [ ] indicating that the data was suspect, so precipitation accumulation for CDJ for that day did not get calculated. After speaking with the Central Region, it was verified that it was raining at CDJ on that day. OPS24 investigated that issue, and found that V3.05 has two related new capabilities with regards to the AO1 and AO2. One new capability of ASOS in V3.05 is to allow the TEC (or SYS) to designate the type of ASOS as AO1 – not required to have a Present Weather Sensor (LEDWI), or AO2 – ASOS with a Present Weather Sensor configured. The other improvement to V3.05 is the Validation of Precipitation Accumulation algorithm (i.e. “False Tip Algorithm”). There is a check in the False Tip Algorithm for a site being designated as AO1. If a site is designated AO1 the False Tip Algorithm will NOT run, because there is no LEDWI present. However, most of the “O” level sites are still configured as AO2 sites, including CDJ. Because CDJ was configured as an AO2 site (has a LEDWI) the False Tip Algorithm bracketed [ ] good CDJ AWPAG data because it detected that there was no precipitation (NP) either

edited by an observer or from the LEDWI (which was non-existent –that is why it had NP). So, Joe asked the V3.05 OT&E sites that do not have a LEDWI to dial into the ASOS sites, and change the ASOS type from AO2 to AO1 on the REVUE-SITE-PHYS page. This should fix the issue. Several sites have changed from AO2 to AO1. Rick Parry mentioned that once V3.05 is fielded nationally, a list of the “O” sites without a LEDWI could be compiled and sent to the field. Greg Dalyai (OPS12) said that this could be done by adding a section to Mod Note 80G to tell the TEC how to change the ASOS site designator from AO2 to AO1. OPS24 will verify that making CDJ an AO1 site allows AWPAG precipitation accumulations to be counted and sent out.

The next ASOS V3.05 TRG meeting is scheduled for Thursday, January 5, 2:00-3:30 pm (EST), SSMC-2 Room 4246. The conference call dial in number is 1-877-690-0813; participant pass code – 8521699#.