

ASOS OT&E TRG Meeting

December 1, 2011

Attendees

NWS Headquarters, Silver Spring, MD:	U.S. Navy
Joe Fiore OPS24	Ron Heatherdale
Peggy Hoch OPS23	Pete Dashnaw
Hak Kim OPS23	
Toni Remy OPS23	U.S. Air Force
Rick Parry OPS22	Robert Beebe
Chet Schmitt OPS22	
Khien Nguyen OPS24	NCAR
Joe Devost OPS12	No Participants
NWS Regions and WFOs	FAA
Jim Durr Alaska Region	Bing Huang
Tom Townsend Central Region	Paul Armbruster
Robert Weaver Central Region	
Ron Quillen Eastern Region	
Matt Ferrell Eastern Region	
Art Patrick Eastern Region	
Mike Esip Eastern Region	
Dave Eckberg Eastern Region	
Tim Rutkowski Eastern Region	
John Bush Pacific Region	
Alan Lowe Pacific Region	
Lew Harrington Southern Region	
Dave Brogan Southern Region	
J.D. Richardson Southern Region	
Adam Mathis Western Region	
Scott Birch Western Region	

On Thursday, December 1, 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 Phase 1 OT&E installation of ASOS Software Version 3.05 and any Test Trouble Reports (TTRs) to date.

Discussions

Joe Fiore began the meeting by reviewing the Test Trouble Reports (TTRs) identified so far.

TTR 294 – extra zeros in the AUDLOG if no data are in the log. The zeros will go away once actual data is received. This has been found at several of the OTE sites. This is not a major problem and does not have an operational impact. Since this does not have an operational impact the problem can be ignored for now and possibly corrected in a later ASOS software upgrade.

TTR 295 – Pressure Data Missing and Pressure Sensor Response Timeouts – pressure sensors drop out causing missing data with brackets around the data. This problem was reported at eleven of thirteen sites. One of the main problems with this TTR is that it can only be corrected by a tech physically deconfiguring and reconfiguring the sensors which has a significant impact on the workload for the techs. The Software Branch and the OT&E team are working on determining a common factor causing the problem. This problem is high priority and has high impact on the technicians.

So far, the Phase 1 OT&E sites that have reverted to ASOS V2.79Y are:

TAN -Taunton, MA
WAL - Wallops Island, VA
GIF - Winter Haven, FL
LOL – Lovelock, NV
OLS – Nogales, AZ

The pressure problem was never discovered in the development lab or during system test at Sterling, or at the NWS Training Center. The Sterling forecast office suggested installing V3.05 at DMH – MD Science Center (Baltimore Inner Harbor) and to install a data logger to help investigate TTR 295. Chet Schmitt, OPS24, will download all SYSLOG data from DMH before switching over to V3.05. Each region was asked to provide one or two "O" level sites in their regions that could install V3.05 to help the software branch identify the pressure problem and collect critical winter data if possible. Sites that have already been identified include:

1V4 - St. Johnsbury, VT Eastern Region
NYC - Central Park, NY Eastern Region
DMH - MD. Science Center, Baltimore, MD Eastern Region
P28 - Medicine Lodge, KS Central Region
CDJ - Chillicothe. MO Central Region

Since it is important to capture and validate ice accretion data and remarks for the winter months, other service level "O" sites are now being considered for participation in Phase I. Also, a waiver is being considered to allow non aviation sites to continue running with V3.05 and allow the Technician (TEC) to remotely clear and restore the pressure sensors by having them turn report processing for the pressure OFF and ON by dialing into the site as a TEC. At this time the waiver is being discussed by NWS upper management.

The Software Branch has two plans for correcting the problem. The first is to develop a debug load that just tracks a potential fix. This load could take 2-3 weeks to develop, then 1 week for a quick system test and sent to selected V3.05 sites using a data logger for tracking. The second plan is to develop a full debug load that fully archives all the data needed to analyze the problem. The time frame for this load would be 4-6 weeks to develop, then 1-2 weeks for system test and sent to selected V3.05 sites also using a data logger for tracking. If the first debug load works then the second option would not have to be implemented. It was requested that the sites running V3.05 provide as much information as possible to the Software Branch to assist with the investigation of this problem. Ron Heatherdale (U.S. Navy) said they have been running V3.05 since October 12 on their gold ASOS system, and have not experienced any sensor response timeouts. He will send Joe Fiore an email with more information, including the SYSLOG, communication, and sensor configuration

Sites that continue to run V3.05 at this time include:

ATT	Austin/Mabry, TX
ANJ	Sault Ste. Marie, MI
POR	Portage Glacier, AK
P68	Eureka, NV
SMP	Stampede Pass, WA
CLM	Port Angeles, WA
BFD	Bradford, PA
KNAK	Annapolis, MD

TTR 296 – “T” group is not included in the SPECI report for sites that continue to run V3.05 at this time. Only one site is not experiencing this problem: SMP - Stampede Pass, WA. This problem will be corrected.

TTR 297 – found by Hak Kim while investigating TTR 295, TEC has the ability to remotely clear Pressure Sensor DQ errors or Pressure Sensor response timeouts and restore pressure data. Remote capability should not be allowed in V3.05. This problem will be corrected in a future load.

Another issue of system warm starts was brought up. The ET (Robert Weaver) from ANJ - Sault Ste. Marie, MI noted that the warm starts have only occurred since V3.05 was installed. Robert said that there were no warm starts for a year in the software loads prior to V3.05. Joe Fiore said that he is working on analysis of this issue, he sent out a table (on 12/1/11 to the TRG) that identifies the sites experiencing the warm starts and a

description of the possible cause (i.e. crash information from the SYSLOG). Analysis will continue, and a TTR will be written if required.

The next ASOS V3.05 TRG meeting is scheduled for Thursday, December 15th, 2:00-4:00 pm (EST), SSMC-2 Room 4246. The conference call dial-in number is 1-877-690-0813; participant passcode – 8521699#.