



**Automated Surface Observing System (ASOS)  
Acquisition control Unit (ACU) v3.05 System Test  
Review Group Meeting Minutes**

**Thursday  
April 14, 2011**

**Attendees**

- OPS23: Hak Kim
- OPS24: Bert Vilorio, Khien Nguyen, Joe Fiore
- OPS22: Jen Dover
- OPS32: Chris Stark
- OS7: Sergio Marsh
- PR: John Bush
- AR: Jim Durr
- WR: Son Nguyen
- ER: Matt Ferrell, Tim Rutkowski

**1. Discussions:**

On Thursday, April 14, 2011, the National Weather Service Test & Evaluation Branch (OPS24) hosted the Automated Surface observing System (ASOS) Acquisition control Unit (ACU) V3.05 System Test (ST) Review Group Meeting. The purpose of the meeting was to discuss the status of the ST and the Test Trouble Reports (TTRs).

- The progress to date at SFSC and WSH is summarized in the below table:

As of April 15, 2011	Regression tests	Functional Tests	Data Sets
Total Planned	98	97	8
Completed	97	88	7
Complete Percentage	99%	91%	87%
Failed Procedures	4	3	1

- To date, NAVYSYSCEN has not installed the ASOS v3.05 software on their system. OPS24 is continuing to work with NAVYSYSCEN for the software installation and to confirm its operation.

Four new TTRs were found:

**TTR275** - IFW Sensor DQ Check Not Implemented. S01016 - Modification to Wind Data Quality states that for the IFW sensor "a direction change of 1 degree or less is required within 5 minutes before a DQE condition will be set". This means if the wind direction from the IFW sensor does NOT change by >1 degree within 5 minutes, a DQE will be set, a message will be set to the SYSLOG, and the wind will go missing. However, the SP1 ASOS does NOT issue a DQE after 5 minutes of constant wind direction.

**TTR276** - ECP S00788 Remove Additive Data from Specials transmitted during Hourly Edit Time. The additive data is still present in the SPECIs being transmitted during the hourly edit time - Impact 6, Priority 6.

**TTR277** - S00847 Computing Minutes of sunshine at Latitudes Greater than 60 Degrees

A software check was supposed to have been implemented so that ASOS will not compute minutes of sunshine for sites at latitudes greater than 60 degrees. Tests performed on the SP1 ASOS test system show that the minutes of sunshine are not computed regardless of latitudes.

Note: The test procedure does not indicate whether a Sunshine Sensor is required or not. Also, NWS has never implemented the Sunshine Sensor. Thus this capability can not be properly verified.

**TTR278** – At SFSC, when a “hard” reset of the DCP#3 was applied at the OID, the sensors data were missing on DCP#3 and will not come back until either “hard” reset of the ACU or a deconfiguration/reconfiguration of the sensors from the DCP - Impact 6, Priority 6.

Update: This problem might be related to the Comms or hardware problems on DCP#3. SFSC will investigate.

- Old TTRs:

**TTR274:** Incorrect computation of Averaged Wind Speed on the Daily Summary – The TRG agreed that this erroneous result needs to be investigated by the Software Branch (OPS23) and if found to be a problem, it is recommended to be fixed in the build prior to ST retest and before OT&E - **OPEN**

**TTR273:** Ice Accretion Algorithm yields improper results (too much Accretion) – The Software Branch (OPS23) has confirmed the problem and is working on a fix for it .

Update: The problem has been fixed for the revised load.

**TTR272:** AOMC version of the Site Phys Page is not being updated to reflect the uploaded state of the Ice Remarks. – Hak Kim said the problem is in the software at the AOMC and he will address this after TTR273 is resolved. The TRG assigned **Impact 1 and Priority 1** to this problem.

Update: Hak Kim (OPS23) has corrected the AOMC software.

**TTR267:** ST0 at SFSC has been reporting multiple CL31 sensor response timeouts on all DCP. There were also bad weather and radio transmission errors at the times.

Update: The TRG recommended trouble shooting the radio Comms problem first and continue monitoring the sensor response timeouts. However, SFSC currently does not have a technician to perform this task. Bob Retzaff said the RF link is operating at 2400 baud rate which is possibly a bottle neck for the data streams from the various sensors. Kevin Murray asked what if the problem get worst with more sensors configured. Chet said he will bring up this issue to the ACM meeting.

Update: The SFSC technician will take a look at the comms hardware and provide status to the TRG – **OPEN**

2. **New Action Items**

1. OPS22 and OPS24 will need to investigate and discuss TTRs 274, 275, 276, and 277. Afterwards, OPS22 will send their recommendations to OPS23 for software revision in the updated build.

2. SFSC to investigate problems related to TTR#278.

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