



ASOS Test Review Board (ATRB)

AGENDA ATRB

Thursday May 7, 2009

1. **Convene - 10:00 AM EDT**

The next meeting of the ASOS TRB will be held on **Thursday, May 7, 2009, from 10:00 a.m. to 12:00 p.m. EST** at National Weather Service (NWS) Headquarters, SSMC2, Room **4246**. “GOTOMEETING” teleconferencing will be setup to accommodate for those persons who cannot attend the meeting. Invited guests include John Monte and Joel Williams (W/OST11) for the CL31 Ceilometer Replacement Project and Greg Daylai (OPS12) for the OID/VDU Replacement using Thin Clients.

Khien Nguyen (W/OPS24) will present the results of the System Test (ST) for the AXEL Thin Client “Logistic” Replacement for the ASOS Visual Display Unit (VDU). Khien will also brief for ATRB on the ST strategy for the ASOS V2.79X.(i.e., fix for Test Trouble Report #210 related to “infinite loop” problem with the Test command in the ASOS maintenance page documented during the ST for Ice-Free Wind V4.54 firmware).

Peggy Hoch (W/OPS23) will present the Factory Acceptance Test results for V2.79X and V3.01.

Joseph Fiore (W/OPS24) will present the Test Readiness Review to Operational Test & Evaluation for the AXEL Thin Client “Logistic” Replacement of the ASOS Operator Interface Device (OID) and VDU. Joe will also provide a decision briefing package to allow the “CL31 Ceilometer Replacement” OT&E sites for Phase I (i.e., CT12K ceilometer is primary with the CL31 ceilometer as a “test” sensor) to switch their CL31 as the primary ASOS ceilometer and configure their CT12K ceilometer as the “test” sensor.

2. **Chair** [10 Minutes]

- Call to order.
- Role Call for members, alternates, and invited guests.

3. **OLD BUSINESS**

A. Status report by focal points on individual “OPEN” Action Items (See 02/05/09 Minutes) [25 Minutes].

NOTE: The agenda and minutes from the last ATRB meetings, test plans, test reports, and the MicroSoft PowerPoint presentations will be put on the OPS24 web site under ASOS for user access in the near future. The link to the OPS24 website is:

http://www.nws.noaa.gov/ops2/ops24/documents/atrb_docs.htm

Action Item 1(10/9/08): (OPEN) John Monte (NWS/OST11) will perform a test of the bird abatement devices without the 4 short rod extensions at Sterling Field Support Center (SFSC), Sterling, VA before the ASOS CL31 Ceilometer Replacement OT&E and provide the test results to the ATRB.

STATUS: John Monte was absent for the March 12th ATRB meeting, but he previously reported testing of the bird abatement devise without the 4 short-rod extensions continues (start date was November 17. 2008) at the SFSC, and will be complete in August 2009 to ensure the test will include the timeframe of expected highest bird activity at SFSC during early to mid-summer.

NOTE: This action item will remain OPEN but not reported until test is completed in August.

Action Item 2 (10/9/08) (OPEN): Assigned to John Monte (NWS/OST11). John will submit a Test RC for the AWPAG wind screen to the ASOS Configuration Control Board as a prerequisite for the operational testing of wind screens. **UPDATE:** There will be no OT&E conducted for the new AWPAG wind screen. There will be an ST to evaluate the Mod Note and installation of the new wind screen at SFSC and IAD. **John Monte will update the RC to reflect this change and he will submit an RC for deployment if the ST is successful.**

STATUS: No change.

Action Item 3 (10/9/08) (OPEN): Assigned to John Monte (NWS/OST11). John Monte will order the production units for the altered wind screens from OTT for placement in NLSC.

STATUS: Jerry Dinges provided the following update based on conversations he heard John Monte give at other recent meetings. Dave Mannarano collaborated he heard the same information. The NWS expects (321 units) to take delivery of these wind screens in July 2009, so the wind screens can be deployed for the winter of 2009-2010. The NWS is also looking for another vendor to produce these wind screens.

NOTE: This action item will remain open but will not be reported until July 2009 or until the production units are delivered, whichever comes first.

Action Item 4 (10/9/08) (OPEN): Assigned to Greg Dalyai (NWS/OPS12). Greg will coordinate with Jerry Dinges (OPS24) on the delivery dates of the draft NWS Mod Notes required for the IFW Firmware V4.54 (Mod Note 94) and the AWPAG alter wind screens (Mod Note 93). They will be needed for start of the System Tests.

STATUS: Joe Devost (NWS/OPS12) reported for Greg that both NWS Engineering Modification Notes (Mod Note) are almost complete. Mod Note #93 (AWPAG Wind Screens) is

in the final stages of modification, and will be complete soon. (**Note: Not required until July 2009 or when production units are delivered**) - **OPEN**. Mod Note #94 for Ice-Free Wind (IFW) firmware Version (V) 4.54 is currently being used for IFW 4.54 ST which commenced this week at SFSC (**COMPLETED**). The ST team will provide any changes to Mod Note 94 to OPS12 for final revision after IFW 4.54 ST is completed (**OPEN**).

Action Item 5 (10/9/08) (OPEN): Assigned to David Mannarano (NWS/OPS22) will take the lead to ensure a policy decision is formally agreed on for threshold temperatures values for the AWPAG orifice heater turn-on and cut-off based on LogoSense V3.61 and the orifice heater controller firmware V2.1.

STATUS: Dave Mannarano reported there was a meeting scheduled with NWS/OPS22, SFSC, and NWS/OST11 to discuss this temperature threshold on 3/12/09 at National Weather Service Headquarters (WSH). Dave reported OPS22 will write a plan for this effort and then coordinate with NWS/OST11, NWS/OS7 and the NWS Office of Climate, Water, Weather Service. Dave said that there were two main questions to be answered.

- 1.) How low should the temperature cut-off (it is currently 18F) be before ice capping would not occur?
- 2.) In a perfect world (from a climate perspective), what is the lowest temperature at which the snowfall rate will decrease enough to make ice capping insignificant?

Roy Rasmussen reported that he has seen significant snowfall rates in the mountains of Colorado (at NCAR test sites) which cause ice capping occur to 0F because snowflakes become dendritic (and stick together) at low temperatures, increasing snowfall rates and causing ice capping on rain gauges.

Action Item 7 (11/14/08) (OPEN): Assigned to John Monte (W/OST11). John will update the test RC for the new AWPAG Wind Screen to reflect that there will be an ST but no OT&E, and he will submit an RC for deployment of the new AWPAG Wind Screen if the ST is successful.

STATUS: No Change.

Action Item 1 (02/05/09) (OPEN): Assigned to John Monte (OST11); At the request of ATRB member Roy Rasmussen (NCAR), John will contact Cold Bay, AK to inquire about the status of the AWPAG 8 Foot Alter Wind Screens performance during high winds at Cold Bay this winter and reported back to the ATRB.

STATUS: Jerry Dinges will ask John Monte for an update on the wind screen performance at Cold Bay, Alaska during the winter of 2008-2009.

UPDATE: John Monte reported 03/18/09 – “During the Observing Services Program Managers Meeting held here at HQ on February 26, 2009, the Alaskan Region representative indicated that the new screens installed at Cold Bay and Bethel are holding up very well with no problems to date.”

Action Item 2 (02/05/09) (CLOSED): Assigned to Jennifer Dover (OPS22). Jennifer will provide the ATRB with an update on the status of the parts, cost, and schedule required to get SFSC ASOS ST0 DCP 3 operational as soon as possible. COMPLETE.

STATUS: 8 radios and associated parts were ordered from NLSC, and are in stock at SFSC. These radios will be installed on ST0 DCP 3 this week by SFSC staff, and DCP 3 will be powered up and tested by the SFSC staff.

Action Item 1 (OPEN) (3/12/09): Assigned to OPS24. Joe Fiore will provide the ATRB with the latest MCE report after review by the MCE Data Analysis team.

Action Item 2 (OPEN) (3/12/09): Assigned to OPS24. Khien will include a baseline procedure in the V3.01 ST Test Plan.

Action Item 3 (OPEN) (3/12/09): Assigned to FAA/ATO-T. Bing Huang will contact Jim Brand of the FAA Tech Center to see if the Mt. Holly ASOS was still needed for FAA Tech Center testing.

Action Item 4 (OPEN) (3/12/09): Assigned to the FAA/ATO-T. Bing Huang will ask the FAA Test Center in Oklahoma City if they would be interested in participating in V3.01 ST.

Action Item 5 (OPEN) (3/12/09): Assigned to USAF. Mac Lawrence will contact a USAF ASOS site in Florida to see if they would like to participate in V3.01 ST.

B. Review and ratify previous minutes (02/05/09)

[5 minutes] - The ratified minutes will be placed under "Meeting Minutes" on OPS24 Webpage:

http://www.nws.noaa.gov/ops2/ops24/documents/atrb_docs.htm

C. Results of Further Tests Related to Test Trouble Report #210 – V2.79V and IFW V4.54

[20 minutes]

Khien Nguyen will present the test results to clarify the problem documented in TTR#210. The TTR identified a problem in V2.79V. The IFW V4.54 firmware was validated during ST to be fit for deployment. However, the ST TRG recommended IFW4.54 not be deployed with V2.79V without the fix. Further testing results which Khien will present clarifies the problem in both the V2.79D and V2.79V loads. The fix was incorporated into V2.79X.

D. Results of Factory Acceptance Test for V2.79X –

[10 minutes]

Peggy Hoch will present a summary of the FATs results.

E. ST Strategy for ASOS ACU V2.79X -

[10 minutes]

Khien Nguyen will present the ST strategy.

F. Results of Factory Acceptance Test for V3.01 –

[10 minutes]

Peggy Hoch will present a summary of the FAT results.

G. Results of the ST for the ASOS VDU Logistics Replacement Using AXEL Thin Client

[10 minutes]

Khien Nguyen will present the ST results and recommendation.

H. Test Readiness Review to Commence ASOS OID/VDU Logistics Replacement Using AXEL Thin Client -

[20 minutes]

Joe Fiore, Test Director, will present the review for ATRB approval.

I. Update for the OT&E of the ASOS CL31 Ceilometer Replacement using ASOS ACU V2.79V firmware and DCP V2.0 EPROMS –

[20 minutes]

Joe Fiore, Test Director, will present an update of the OT&E (Phase I) with the results of the CL31/CT12K Meteorological Comparison Evaluation for ATRB recommendation to Chair, ACCB whether to switch the CL31 from a ‘test’ sensor to the ‘primary’ sensor at the OT&E sites.

4. **NEW BUSINESS**

ATR Approval:

A. Commence ST for V2.79X

This decision will be based on the presentations made by Khien Nguyen and Peggy Hoch.

B. Commence Operational Test & Evaluation of the AXEL Thin Client ‘Logistic’ Replacement of the ASOS OID and VDU [20 minutes]

Joe Fiore will present the prerequisites for the OT&E and validate each item is satisfactorily completed. The official OT&E planned was signed September 18, 2008 and is posted on the OPS24 website

http://www.nws.noaa.gov/ops2/ops24/documents/ASOS_OID_VDU_OT&E_Plan.pdf

C. Switch CL31 to Primary Ceilometer and Configure CT12K Ceilometer as ‘Test’ Sensor at Phase I CL31 Replacement with Supporting ASOS ACU V2.79V and DCP V2.0 EPROMS [20minutes]

Joe Fiore will present the status of the OT&E and present the final results of the CT12K/CL31 Meteorological Comparison Evaluation to support the decision.

5. **SCHEDULE NEXT ATRB MEETING**

Coordinate DATE/TIME/LOCATION. [5 Minutes] -

PROPOSE DATE – June 18, 2009 – Tentative “New Business” topic –

OT&E results for deployment decision recommendation to ACCB for:

- 1) ASOS OID/VDU “logistics” replacement using the AXEL Thin Client.
- 2) ASOS CT12K replacement using the Vaisala CL31 ceilometer *

*** Only topic if ST for V2.79X is not successful and cannot replace V2.79V as the supporting CL31 ASOS ACU firmware. V2.79X will extend the CL31 OT&E 30 days to validate V2.79X can operationally V2.79V.**

6. **ADJOURN**

7. **EXECUTIVE SESSION - NONE**

(Special session called when needed. The session closed except for the ATRB members and alternates.)