

ASOS Test Review Board (ATRB) Meeting Minutes

Minutes: **ATRB Meeting**

Date: November 14, 2008

Attendees: Jerald Dinges, Joseph Fiore, Khien Nguyen, Harry Tran (NWS/OPS24)
Jennifer Dover (NWS/OPS22 SFSC), Barbra Childs (SFSC/SAIC)
Dave Mannarano, Rick Parry (NWS/OPS22)
John Monte, Joel Williams (OST11)
Peggy Hoch (NWS/OPS23)
Kevin Conaty (NWS/CIO12/AOMC)
Tom Townsend (NWS CR4)
FAA –Jerry Kranz for Bing Huang
Gerald “Wayne” Knight, Ron Heatherdale (U.S. Navy SPAWARSYSCEN)
Scott Landolt (NCAR)
Roy Rasmussen (NCAR)
William Lawrence (USAF)
Bob Retzlaff (NWSTC)
Beth McNulty (NWS/OS23)

The fifth ASOS Test Review Board (ATRB) Meeting was held on November 14 at 10 AM EDT using “GOTOMEETING” web-based meeting software to display various documents and presentations that were discussed during the meeting. The audio part of the meeting was held by telephone conference. Representatives from four of the five groups comprising the ATRB were in attendance: The Department of Commerce (DOC) National Weather Service (NWS), the Department of Defense (DoD) U.S. Air Force and U.S. Navy, and the National Center for Atmospheric Research (NCAR) were present. The FAA was represented by Jerry Kranz.

The Office of Operational Systems (OOS), Field Systems Operations Center, Test and Evaluation Branch (OPS24) convened and moderated the meeting. Highlights of the meeting were:

The first part of the meeting consisted of a review of the previous meeting’s minutes and associated action items and ratification of the minutes from the October 9 meeting by the ATRB. Action Items 1, 3, and 5 from the September 4 ATRB were closed. Action Items 1, 2, 3, 4, 5, 6, 10, 11, and 12 from the October 9 ATRB meeting were closed. Action Item 2 from the September 4 ATRB remains open. Action Items 7, 8, 9, and 13 from the October 9 ATRB remain open. Several new action items were assigned during the November 14 ATRB meeting. The following is a summary of the Action Items and the status of the Action Items from the September 4 and October 9 ATRB meeting:

Action Item 1 (9/4/08): (CLOSED) The minutes from the ATRB meetings, test plans, test reports, and the 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

All future minutes, presentations, reports, and other important documents will be put on the OPS24 website for access and review.

Action Item 2 (9/4/08): (OPEN) John Monte 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: STATUS: John Monte reported that testing of the bird deterrent would start at SFSC on November 17

Action Item 3 (9/4/08) - REVISED (CLOSED): Joe Devost (OPS12) will provide Peggy Hoch OPS23 with a modified version of NWS Mod Note 80: ACU Firmware V2.79S/DCP V2.0 EPROMS for ASOS Ceilometer Replacement (CL31) ST based on October 8 changes from OPS24's installation of CL31 at SFSC. OPS23 will confirm they still need the draft Mod Note 80. COMPLETE.

Action Item 5 (9/4/08) - (CLOSED): NWS will meet separately with the FAA to address concerns about this evaluation. Jerry will distribute the draft plan to the ATRB for review by Friday, September 5. Comments will be due Friday, September 19 COMPLETE

Action Item 1 (10/9/08) (CLOSED): Assigned to the (Bing Huang) FAA and Khien Nguyen (OPS24). Bing will request Harris Corporation check to make sure the FAATC and SFSC both have one GDC modem and one Interplex multiplexer for the FTI communications between the two facilities. Khien will coordinate with the James Brand (FAATC) on the dates for testing the new FTI link during ST for the Interplex multiplexer first and later for the GDC modem when these modems are installed. Khien will inform Bing Huang of the test dates so he can witness these tests at SFSC. COMPLETE.

Action Item 2 (10/9/08) (CLOSED): Assigned to Jerry Dinges (OPS24). Jerry will post the final version of the CT12K and *CL31 Ceilometers Meteorological Comparison Evaluation Plan*, October 2008, to the OPS24 Webpage. COMPLETE.

Action Item 3 (10/9/08) (CLOSED): Assigned to John Monte (OST11). John Monte will incorporate changes to the final installation instructions for the temporary mount for the CL31 test ceilometer (provided by OPS22 and OPS24) and provide the installation instructions and final parts list with accounting codes to OPS24 for distribution the CL31 ST sites, NWS regional focal points, and DoD ATRB representative on Friday October 10. The NWS regional focal points will then distribute the instructions and parts list with accounting codes to the NWS El Techs for the appropriate OT&E sites that need the temporary mount. The goal is to have the temporary mounts installed by the El Techs at OT&E sites by the end of October. COMPLETE.

Action Item 4 (10/9/08) (CLOSED): Assigned to Jerry Dinges (OPS24). Jerry will send the instructions and list of materials for installing the temporary mounts for CL31 to the NWS regional ASOS focal points and the DoD ATRB representatives. The OST11 account code to charge the materials obtained will also be included. For the DoD sites, John Monte will ship the required materials to the DoD representatives/sites. COMPLETE.

Action Item 5 (10/9/08) (CLOSED): Assigned to Jerry Dinges (OPS24). Jerry will contact Deborah Levine, NWS Change Management, to inform her to “fast track” the FAA RC to change the ASOS OID at ORD international airport, Chicago, IL to a VDU. COMPLETE.

Action Item 6 (10/9/08) (CLOSED): Assigned to John Monte (OST11). John will provide the ATRB with the previous winter (2006-2007) test report documenting the tests results of early versions of the altered AWPAG wind screen as additional documentation to show the current screen is compliant with the improved precipitation collection by the AWPAG. John will also use the test results for this winter season (2008 -2009) as additional evidence the altered screens at Cold Bay and Bethel, AK as well as at Johnstown, PA/SFSC, Sterling, VA. show both improved precipitation collection and durability of the screen in extreme wind conditions. COMPLETE.

Action Item 7 (10/9/08) (OPEN): Assigned to John Monte (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.**

Action Item 8 (10/9/08) (OPEN): Assigned to John Monte (OST11). John Monte will order the production units for the altered wind screens from OTT for placement in NLSC. NOTE: A six week lead-time is required. UPDATE: The process for ordering the wind screens has started.

Action Item 9 (10/9/08) (OPEN): Assigned to Greg Dalyai (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 and the AWPAG altered wind screens. They will be needed for start of the System Tests. UPDATE: The Mode Note for the IFW Firmware 4.54 was complete. NOTE: **Jerry Dinges will contact Greg Dalyai (W/OPS12) next week for an update on the status of Mod Note for the AWPAG wind shield.**

Action Item 10 (10/9/08) (CLOSED): Assigned to Jerry Dinges (OPS24). Jerry will plan the test strategies, resources, and schedules for the STs and OT&Es for the IFW Firmware V4.54 upgrade and the AWPAG latest modification to the wind screen. Jerry Dinges briefed the ATRB on this topic at the 11/14/08 ATRB meeting. COMPLETE

Action Item 11 (10/9/08) (CLOSED): Assigned to John Monte (OST11). John agreed to present to the NWS regional ASOS focal points all the changes to the IFW firmware as well as the AWPAG firmware and altered wind screen. John Monte presented the briefing to the regions on 11/13/08. COMPLETE.

Action Item 12 (10/9/08) (CLOSED): Assigned to David Mannarano (OPS22). Dave agreed to schedule the above presentation date with the NWS regional ASOS Focal Points. He will also 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). COMPLETE.

Action Item 13 (10/9/08) (OPEN): Assigned to Jerry Dinges (OPS24). Jerry Dinges will work develop operational test strategies, resources, and schedules for the AWPAG LogoSense V3.61 and the AWPAG orifice heater controller V2.1 subsequent to the completion of Action Items 11 and 12. UPDATE: The AWPAG LogoSense V3.61 and AWPAG orifice heater controller V2.1 firmware is a lower priority task, but is being planned for testing in 2009.

After a review of all open Action Items from previous ATRB meetings, the ATRB voted unanimously to ratify the minutes from the October 9 ATRB meeting.

Jerry than gave an update on the OT&E readiness for the ASOS OID/VDU Replacement Using Thin Client. Jerry reported that the second version of the first article from the OID Vendor (AXEL) was received by W/OPS12, and was being tested at SFSC. Jerry also reported that the first article from the VDU Vendor (Vision Technologies) has still not been received by W/OPS12 after several weeks in which the vendor promised delivery of the first article. Jerry stated that W/OPS24 will meet with W/OPS12 to discuss the hold up in the delivery of the first article for the VDU.

The second part of the ATRB meeting consisted of new business topics. The purpose of the presentations was to have the ATRB vote on whether to proceed to the next phase of testing for these projects. Five PowerPoint presentations (using GOTOMEETING) were given on the following projects:

1: SYSTEM TEST CL31 CEILOMETER REPLACEMENT TEST RESULTS

Khien Nguyen (W/OPS24) reported that the CL31 ST was almost complete. Khien reported that the WSP test between SFSC and the FAA Tech Center still needed to be run because the WSP test bed at the FAA Tech Center still needed to be updated. Part of this WSP test has already been run, and the risk is very low, so completion of this test will not hold up OT&E. The WSP test will be completed after the FAA updates the WSP test bed. The ACE-ASOS test will be re-run at SFSC once the ACE computer is hooked up at SFSC. The ACE-ASOS test was performed at WSH and the test passed. This will not hold up OT&E. Next, Khien reported that one critical TTR was written during ST on “False UPS Power Status Indicator”. The TTR was written because the ASOS reports an UPS failure on the OID even though the

UPS is functioning normally. This false UPS failure will also generate a “\$” (maintenance action needed, thus a site visit from the ET would be required) in the METAR observations. SFSC was able to repeat this failure several times. They de-configured DCP 2 and 3 on ST0 to test if the failure would occur with a single DCP configuration. SFSC reported that the false UPS failure still occurred with the single DCP configuration. The Navy ST site also confirmed that this false UPS problem was seen on there ASOS. The Navy put a “listening device” on the line between the DCP and the UPS, and confirmed that the DCP is sending “garbled” data to the UPS. An Operational Trouble Report (OTR) on the same topic was submitted to W/OPS22 by W/OST11 in August. At that time (in August) this problem was not repeatable, but now it is repeatable with several DCP combinations at multiple ST sites (SFSC and Navy). Thus the TTR and accompanying OTR has been deemed critical. A workaround for this TTR/OTR was proposed for OT&E to have the ET de-configure the UPS at the ASOS OID (the UPS will still be enabled and powered on at the DCP) so the “\$” will not appear in the METAR observations. The ATRB decided the work around for OT&E would be acceptable, but this TTR/OTR must be fixed before national deployment. W/OPS24 will run extensive tests at SFSC on this TTR to help provide more information to W/OPS23 to help them isolate the problem. This information will be included in the updated OTR.

2: UPDATE ON CL31/CT12K METEOROLOGICAL COMPARISON EVALUATION

Joe Fiore (W/OPS24) presented a summary of results to date at SFSC, and reported on differences in cloud heights between the CT12K and CL31 that have been seen at SFSC during the evaluation. Case studies on these differences were presented along with an explanation of why there were differences between the CT12K and CL31. Tom Townsend suggested that an explanation of the differences be written up in a “white paper” that will be distributed to the ASOS users during OT&E and prior to national deployment. Kevin Conaty (AOMC) asked if this document can be passed on the FAA Contract Weather Observers (CWO). Jerry Kranz (FAA) reported that this “white paper” will be converted to a PowerPoint presentation and presented to the FAA CWO’s in a training demonstration. W/OPS24 and W/OPS22 will develop the “white paper” and provide it to the ASOS users and to the FAA during OT&E.

3: OT&E CL31 CEILOMETER REPLACEMENT TEST READINESS REVIEW

Joe Fiore (W/OPS24) presented the test readiness review which included a summary of purpose, pre-requisites, test strategy, operational risk reduction, and OT&E schedule. The critical TTR/OTR written during ST was discussed in detail, and the ATRB decided that the proposed work around for this TTR/OTR was acceptable for OT&E, but they stressed that this TTR/OTR must be fixed prior to national deployment. Jerry Dinges stated that once the fix to this OT&E has been completed, it will need to be tested at the OT&E sites before a decision for national deployment can be made. The ATRB voted unanimously to proceed to CL31 OT&E.

4: IFW V4.54 SYSTEM TEST READINESS REVIEW

Jerry Dinges (W/OPS24) presented the test readiness review of IFW V4.54. The ATRB voted unanimously to proceed to ST contingent upon all pre-requisites being met before the start of ST.

5: OPERATIONAL TEST STRATEGY FOR VERSION III OTT 8-FT. DIAMETER ALTER WIND SCREEN ON AWPAG

Jerry Dinges (W/OPS24) reported on the Operational Test Strategy for Version III OTT 8-FT. Diameter Alter Wind Screens on AWPAG. Roy Rasmussen (NCAR) ask if the NWS could find out about the winds (how high and what type) that are experienced in Cold Bay and Bethel Alaska. Roy stated that Colorado frequently experiences Chinooks winds in excess of 60 M.P.H, and that he wanted to make sure that the new shields could hold up to those types of winds. The NWS will ask the Alaska region to find about the winds (how high and what type) experienced in Cold Bay and Bethel Alaska to help answer Roy's question. The ATRB voted unanimously to proceed to ST, and voted unanimously to confirm that OT&E is note required for national deployment at operational ASOS sites.

The Jerry Dinges, Chair, ATRB will schedule the next ATRB meeting. The following is list of new action items agreed upon during this meeting:

Action Item 1 (11/14/08) (OPEN): Assigned to W/OST11. John Monte will update the test RC for the new AWPAG Wind Screen to reflect that there will be an ST instead of an OT&E, and he will submit an RC for deployment of the new AWPAG Wind Screen if the ST is successful.

Action Item 21 (11/14/08) (OPEN): Assigned to W/OPS24. Jerry Dinges will contact Greg Dalyai (W/OPS12) next week for an update on the status of Mod Note for the AWPAG wind shield.

Action Item 3 (11/14/08) (OPEN): Assigned to W/OPS24 and W/OPS12. Jerry stated that W/OPS24 will meet with W/OPS12 to discuss the hold up in the delivery of the first article for the VDU Thin Client.

Action Item 4 (11/14/08) (OPEN): Assigned to W/OPS24. W/OPS24 will run extensive tests at SFSC on this TTR to help provide more information to W/OP23 to help them isolate the problem. This information will be included in an updated OTR.

Action Item 5 (11/14/08) (OPEN): Assigned to W/OPS24 and W/OPS22. W/OPS24 and W/OPS22 will develop the "white paper" explaining differences between the CT12K and CL31 ceilometers and provide it to the ASOS users and to the FAA during OT&E.

Action Item 6 (11/14/08) (OPEN): Assigned to W/OPS22. W/OPS22 will ask the Alaska Region to find out how high winds are Cold Bay and Bethel Alaska experience high winds (similar to Chinook winds seen in Colorado) for the OTT 8-FT. Diameter Alter Wind Screens on AWPAG.

Please direct all questions/concerns to Joseph Fiore (Phone (301)-713-0326 x 119, email joseph.fiore@noaa.gov).