

ASOS CL31 Replacement Ceilometer System Test (ST) V2.79U TRG “Kick-Off” Meeting

MINUTES: CL31 V2.79U ST “Kick-Off” Test Review Group (TRG) Meeting

DATE: January 29, 2009

ATTENDEES:

TRG MEMBERS:

Jerald Dinges (W/OPS24 – Chair/Moderator)
Khien Nguyen (W/OPS24 - ST Director),
Joseph Fiore (W/OPS24 - Secretariat),
“ABSENT” Greg Dalyai (W/OPS12)
Richard Parry (W/OPS22)
John Monte (W/OST11) CL31 Ceilometer Project Manager
“ABSENT” Laura Cook (W/OS7)
“ABSENT” Bing Huang (FAA ATO-T)
Gerald “Wayne” Knight (U.S. Navy, SPAWARSYSCEN, Charleston, SC)
“ABSENT” Dan Lester (NWS Central Region Headquarters)
William “Mac” Lawrence (USAF HQ/AFWA)
“ABSENT” Kevin Conaty [W/OICO12 - ASOS Operations Monitoring Center (AOMC)]

TEST SUPPORT PERSONNEL:

Beth McNulty (W/OS23) - NWS Office of Climate, Water, and Weather
“ABSENT” James Brand [FAA Technical Center (FAATC), Atlantic City, NJ]
Ray Bahavar and Dennis Kamin [FAA National Airway System Engineering Office (NASEO)]
Robert Retzlaff (NWS Training Center, Kansas City, MO)
Ron Heatherdale (U.S. Navy SPAWARSYSCEN, Charleston, SC)
Ed Meek - NWS NWS Pacific Region Headquarters
Son Nguyen – NWS Western Region Headquarters
Mat Ferrell - NWS Eastern Region Headquarters
Chet Schmitt (W/OPS22)
Jennifer Dover (W/OPS22 - SFSC)
Brian Rice (SFSC contractor)
Juan Montenegro (W/OPS22 - SFSC)
Jerry Kranz (FAA contractor)

SUMMARY and ACTION ITEMS:

A System Test (ST) Test Review Group (TRG) “kick-off” meeting for the CL31 Replacement Ceilometer ST Test Review Group (TRG) for ASOS ACU firmware version V2.79U was held by audio teleconference at National Weather Service Headquarters (WSH), Silver Spring, MD on January 29, 2009. The Office of Operational Systems (OOS), Field Systems Support Center (FSOC), Test and Evaluation Branch (W/OPS24) convened and moderated the meeting. This

meeting was conducted to provide a status on progress of testing “government-approved” fixes and a “software patch” for the 8 TTR’s written against ASOS Acquisition Control Unit (ACU) Version (V) 2.79S and V2.79T test firmware, ensure all prerequisites were met for commencement of an ST for V2.79U (1/26/09), and present the ST strategy and schedule.

First, Jerry Dinges provided a brief summary of the issues with V2.79S and V2.79T and the fixes that are in V2.79U. Next, Khien Nguyen, ST Director, provided a Microsoft PowerPoint briefing (See attachment) on details of the problems, extensive testing conducted by the NWS and Prism (i.e., Factory Acceptance Test) for the fixes for 6 TTR’s (TTR 191, 192, 195, 196, 197, and 199) and “software patches” for two TTR’s (TTR 194 and 198).

There were no objections by the TRG to commence the ST for Ceilometer Replacement with V2.79U based upon the information provided by W/OPS24.

In anticipation of the ST commencement, W/OPS24 provided each ST site with an e-mail version of V2.79U on January 29. W/OPS12 personnel will follow-up these softcopies of the firmware with compact discs containing V2.79U to all ST sites on January 30. Prior to installing V 2.79U, each ST site must “baseline” its test system(s) using the procedures previously developed by W/OPS24. This “baseline” procedure will confirm the test system(s) is performing at an acceptable level prior to ST. ST will commence at the following locations:

- Sterling Field Support Center (SFSC) on ASOS test system ST0;
- U.S. Navy SPAWARSYSCEN in Charleston, SC;
- NWS Training Center (NWSTC) in Kansas City, MO; and,
- FAA National Airspace Engineering Logistics Support Center, Oklahoma City.

SFSC and the U.S. Navy will run all regression test procedures for three ceilometer configurations: 1) CT12K as operational sensor CL31 as test sensor; 2) CL31 as operational sensor and CT12K as test sensor; and, 3) CL31 as the stand alone operational sensor. For these ceilometer configurations, the test sites will use anywhere from one Data Collection Platforms (DCP) up to three DCPs. The SFSC ST0 will also test the Meteorological Discontinuity (L2) and Backup CL31 sensor (L3) on a two-DCP system, and eventually, test using a three-DCP system with a CL31 ceilometer. John Monte (W/OST11) and Rick Parry (OPS22) will help test the Met Discon and Backup configurations. W/OPS24 will document the procedures and create official regression test procedures for future STs. The schedule for testing of the three-DCP systems at SFSC will depend upon fixing a persistent radio communication problem that has existed during the previous STs for the CL31 replacement ceilometer between the ST0 ACU and its third DCP. In the interim, the U.S. Navy volunteered and the TRG accepted the offer to try to simulate a three-DCP system with their ASOS test system using the CL31 ceilometer as an operational sensor on all three DCPs. Jerry Dinges stated the three-DCP configuration test using the CL31 was not mandatory to start the OT&E, but must be completed successfully using ST0 prior to deployment of the CL31. This configuration can only be tested operationally using only one type of ceilometer. Therefore, the configuration can only be tested during ST and not OT&E. W/OPS24 will work with W/OPS22 to ensure the 3-DCP configuration for ST0 is working satisfactorily and tested with the CL31.

The NWSTC agreed to “baseline” their Single Cabinet Assembly ASOS and install ASOS ACU V2.79 U after the meeting. However, Bob Retzlaff will not be at the NWSTC to support the ST the week of February 2-6. He will exercise the system when he returns Monday, February 9.

The FAA National Airspace Engineering Logistics Support Center agreed to install V2.79U. They requested technical support which Bob Retzlaff, NWSTC, volunteered to provide. Also, Joe DeVost, OPS12, will confirm the FAA’s mailing address for shipment of the compact disc with V2.79U.

Also, Khien will coordinate with the FAA Technical Center (FAATC), Atlantic City, NJ, the FTI communication link between the SFSC ST0 and their AWOS/ASOS Data Acquisition System (ADAS)/Automatic Lightning Data Acquisition and Reporting System (ALDARS). This will include validation of the cloud report data in the one-minute observation when the CL31 is configured on ST0 as the operational ceilometer. The FAATC’s Weather Systems Processor (WSP) system will also be interfaced to ST0 for validation. However, if the FTI communications connection to the WSP system is not available, the test will be completed by a the previously used dial connection. Khien reminded the TRG that there are not very many of these systems in use by the FAA.

Khien briefed the TRG the ST is scheduled for completion by Thursday, . If ST is successful the TRG will vote on whether to proceed to OT&E.

The next TRG meeting will be scheduled for Thursday, February 5 at 2 p.m. EST.

The following action items were assigned:

Action Item 1 (OPEN): Assigned to W/OPS24 (Khien Nguyen, Joe Fiore), W/OPS22 (Rick Parry), and W/OST11 (John Monte). W/OPS24 will ensure they obtain the test procedure from W/OST11 and W/OPS22 to use a real CL31 ceilometer to generate meteorological discontinuity remarks from ST0 with an operational CL31 (L1) on the main DCP #1 and a CL31 meteorological discontinuity sensor (L2) on DCP #2 for the third part of V2.79U ST. W/OPS24 (also with W/OPS22 and W/OST11’s help) will develop a test procedure for V2.79U with CL31 as the operational sensor (L1) on DCP #1 and a back-up CL31 sensor (L3) on DCP #2

Action Item 2 (OPEN): Assigned to Khien Nguyen (W/OPS24). Khien will contact Bing Huang (FAA) to coordinate testing between SFSC and the FAATCd for ADAS/ALDARAS and WSP testing, and ask Bing if he wants to witness the testing at SFSC.

Action Item 3 (OPEN): Assigned to Joe DeVost (W/OPS12). Joe will mail V2.79U on CD to all ST sites. These CDs will be retained by the site as a record of the test firmware.

Action Item 4 (OPEN): Assigned to Bob Retzlaff (NWSTC). Bob will contact Ray Bahavar to provide remote technical support for his FAA ASOS system as part of the installation of V2.79U.

Action Item 5 (OPEN): The ST sites will baseline their ASOS test system using W/OPS24 procedure to validate the system is operating properly prior to installing ASOS ACU V2.79U and report the completion of the installation to Khien Nguyen, ST Director.

Action Item 6 (OPEN): Assigned to Ron Heatherdale and Wayne Knight, U.S. Navy SPAWARSYSCEN Charleston, SC. The U.S. Navy will simulate a three-DCP configuration with the CL31 ceilometer as an operational sensor and try to validate the fixes and patches (workarounds).

Action Item 7 (OPEN): Assigned to Jerry Dinges (W/OPS24). Jerry will work with Joseph Facundo (W/OPS22) and the SFSC test personnel to ensure the 3-DCP configuration at SFSC ST0 is repaired. Once fixed, Khien Nguyen (W/OPS24) will ensure the regression test procedures are satisfactorily performed for this configuration and report the results to the TRG

Please direct all questions/concerns to Khien Nguyen (Phone (301)-713-0326 x 177, email khien.nguyen@noaa.gov).