

“CL31 Replacement with ASOS ACU V2.79V and DCP V2.0 EPROM” OT&E Test Review Group Status Meeting

May 14, 2009

ATTENDEES:

NWS:

OT&E Site Electronics System Analyst (ESA)/ Electronic Technician (ET):

WFO Caribou, ME
WFO Burlington, VT
WFO Wilmington, OH
WFO Phoenix, AZ
WFO Midland, TX
WFO Amarillo, TX
WFO Bismarck, ND
WFO Jackson, KY
WFO Honolulu, HI

NWS Regional Headquarters:

Don Bolton, ARH
Jim Jones, ARH (ABSENT)
John Bush PRH
Lew Harrington, SRH RMS
Dan Lester, CRH RMS
Matt Ferrell, ERH RMS (ABSENT)
Kevin Murray, ERH (ABSENT)
Tim Rutkowski, ERH (ABSENT)
Son Nguyen, WRH

National Weather Service Headquarters:

John Monte – W/OST11
Joel Williams – W/OST11 (ABSENT)
Greg Dalyai – W/OPS12 (ABSENT)
Joseph Devost – W/OPS12 (ABSENT)
David Mannarano – W/OPS22 (ABSENT)
Richard Parry - W/OPS22
Chet Schmitt – W/OPS22
Peggy Hoch – W/OPS23 (ABSENT)
Hak Kim – W/OPS23
Kevin Conaty – AOMC (ABSENT)
Beth McNulty – W/OS23 (ABSENT)
Laura Cook – W/OS7
Jennifer Dover – W/OPS22 (ABSENT)
Brian Rice – SAIC SFSC
Barbara Childs – SAIC SFSC (ABSENT)

Khien Nguyen – W/OPS24
Harry Tran – W/OPS24 (ABSENT)
Joseph Fiore – W/OPS24 (OT&E Test Director)
Jerald Dinges – W/OPS24 (Moderator)

National Weather Service Training Center

Bob Retzlaff - Kansas City, MO (ABSENT)

NWS Employees Organization (NWSEO) Representative:

Chris Kornkven –WFO Milwaukee, WI

FAA:

Bing Huang, ATO- T
Jerry Kranz, (contractor)

DoD - U.S. Navy:

Gerald “Wayne” Knight - Space and Naval Warfare System Center (SPAWARSYSCEN), Charleston, SC (ABSENT)

Ronald Heatherdale – Space and Naval Warfare System Center (SPAWARSYSCEN), Charleston, SC

DoD - U.S. Air Force:

William (Mac) Lawrence

The tenth CL31 ceilometer replacement Operational Test and Evaluation (OT&E) Test Review Group (TRG) status meeting was held by audio conference call on Thursday, May 14, 2009. Jerald Dinges, moderator, convened the meeting with a “roll call” (See above list of attendees).

First, Jerry summarized that he was pleased to report the Chair of the ACCB formal signed the memo (dated May 7) to switch the CL31 to the operational sensor, and switch the CT12K to the operational sensor at the 16 OT&E sites with dual installations. Jerry also reported the Technical Implementation Notice (TIN) that announces the switch of the CL31 to the operational ceilometer and summarizes the results of the MCE was sent on May 8 by the WSH Office of Climate, Water, and Weather Services (Melody Magnus) through the NWS family of services site. Jerry proceeded to inform the TRG that the U.S. Navy OT&E site in Beaufort, SC (KNBC) was the first site to successfully switch the CL31 to the operational ceilometer on May 8th at 12 PM EDT. Jerry also reported that Hilo, HI (ITO) was the first NWS site to switch the CL31 ceilometer to the operational ceilometer. Jerry also stated that the PNS announcing the switch was sent out by the Honolulu, HI WFO (HFO) on 5/8/09. (Note: John Bush, PRH, notified NWS management, an article about the CL31 ceilometer was published in the *Hawaii Tribune Herald* on May 13). Jerry informed the TRG Joe Fiore created a Microsoft Excel spreadsheet to track the status of the “Switch to the CL31 as the Operational Ceilometer” at the 16 dual installation OT&E sites; Joe will provide an updated version of this

spreadsheet with the TRG minutes. John Monte presented a status of the ongoing SYSLOG analysis at the CL31 OT&E sites. This Microsoft Excel spreadsheet was sent out via an email to the TRG distribution list earlier on May 14. There are two new problems which John believes should be watched and will be documented as Test Trouble Reports (TTR) by OPS24: 1) The “Clock Time Drift Problem Synchronization with the AMOC” occurred at two sites (ANJ and CYS); and 2) A “warm start” problem reported at PHX. Joe Fiore presented a summary on the status of the “Switch to the CL31 as the Operational Ceilometer” at the 16 dual installation OT&E sites, a total of six sites have made the switch successfully to date. Next, Jerry reviewed the “OPEN” Action Items from the May 7 TRG meeting related to the CL31 OT&E project. In addition, OPS24 summarized the ongoing System Tests (ST) for ASOS ACU test firmware for V2.79X and V3.01 at Sterling Field Support Center, Sterling, VA (SFSC) and the US. Navy SPAWARSYSCEN, Charleston, SC. Lastly, OPS24 provided an update on the status of the test readiness for the OID/VDU Thin Client Logistics Replacement OT&E.

The minutes from the May 7th TRG meeting will be posted on the W/OPS24 website:

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

The noteworthy discussions and statements from the May 14th CL31 OT&E TRG meeting included:

- 1) John Monte reported on the status of the SYSLOG analysis at the OT&E sites that is being performed by the staff at the SFSC, Sterling, VA. John referred to the latest spreadsheet (5/12/09) which summarizes SYSLOG error messages seen to date at the OT&E sites. Overall, most sites continue to exhibit no SYLOG issues since installing V2.79V. John reported there are two concerns regarding the SYSLOG analysis to date: 1) There was an “ASOS clock drift” problem at Sault Ste. Marie, MI (ANJ) and Cheyenne, WY (CYS) noted in the SYSLOG (i.e., “Over Max PADIFF”). Several people noted they had seen this message before with other ASOS firmware loads in the past. John noted that this is the first time this had happened at ANJ since V2.79V was installed. Hak Kim (OPS23) explained there are three clocks used by ASOS: 1) The PSOS clock, 2) The hardware clock in the video board, and, 3) The AOMC clock. Hak explained if any one of these three clocks is not synchronized with the others within 11 seconds, the “Over Max PADIFF” SYSLOG error message is generated. This error message was added to the ASOS ACU firmware several years ago in an attempt to correct a clock drift problem within ASOS. Hak then stated this condition will initiate a call from the ACU to the AOMC for a “reset of the clock checking”. This ACU call will continue once days for 7 days until the clocks are synced. Then it will be reverting to normal checking again once every thirty days. In the case at ANJ, the original call to the AOMC to synch the clocks did not work at first. At CYS the first call to the AOMC was successful. OPS24 will track this problem as a “watch item” TTR.

The second issue John reported was the random “warm start” at Phoenix, AZ (PHX). There were also many power and communication issues seen at PHX between May 10 and May 11. Walt Jameson reported there might be problems with the GFIC circuit used to power the ET’s laptop, or there might be other issues with batteries or power at the DCP. Walt performed a battery check (load test) on the DCP and found the batteries were good. Walt also replaced the AC receptacle, and has not had any warm starts or power issues since that time. This random “warm start” issue at PHX will also be tracked as a “watch item” TTR by OPS24.

John also noted four other new problems which appear to have “no impact” on the ASOS operations: 1) At Guadalupe Pass, TX (GDP) on May 10, there were problems with the SIO card where the CL31 was connected. There were several SIO board failures reported at GDP during this time, but it did not affect the CL31 data; 2) At Camarillo, CA (CMA) on May 7th, the SYSLOG recorded a “CL31 Inoperative” message. It occurred only one time, and did not affect the quality of the CL31 data; and, 3) At Hilo, HI (ITO) on May 11, the DCP “locked up” for no apparent reason. The Electronic Technician (ET) for ITO (Steve Butler) performed extensive diagnosis of this problem. He noted both DCP CPU cards were “green” meaning that they were both trying to communicate with the DCP at the same time. Steve had to warm start the ACU and then initiate a hard reset of the DCP to resolve the issue. Walt Jameson noted this problem has been seen in previous ASOS firmware loads; and, 4) John Monte stated the CL31 at ITO reported a “Solar Background Radiance Warning” since the CL31 was made primary sensor on May 13th. This warning can occur when the sun is directly overhead of the ceilometer two times a year in Hilo (and at other low latitude sites) in May and in July when the sun is at its highest angle. John Monte has sent this information to Vaisala for diagnosis, and will wait for their recommendation on this issue. Vaisala reported that the CL31 behaved as it should since the Warning message ceased. However, John will continue to monitor the site for more warning messages.

- 2) Joe Fiore presented a summary on the status of the “Switch to the CL31 as the Operational Ceilometer” at the 16 dual installation OT&E sites using the Microsoft Excel spreadsheet he created. This spreadsheet will be updated each week and attached to the e-mail that distributes the TRG minutes. Joe reported 6 OT&E sites have either switched the CL31 to the operational ceilometer or will switch the CL31 to the operational ceilometer by May 15. Joe explained the content of the spreadsheet to the group. He noted an important part of switching the CL31 to the operational ceilometer was to have the ET’s (especially at the sites with temporary mounts) check the tilt angle of the CL31 on the maintenance page to make sure that it was still within the 3-5 degree tilt angle tolerance. Joe provided a summary of which Weather Forecast Offices (WFO) sent the Public Notification Notice (PNS), and which sites had switched the CL31 ceilometer to the operational ceilometer. The summary follows:

KNBC- Beaufort, SC (U.S. Navy) – CL31 switched to operational ceilometer on 5/8/09 at 12 PM EDT

KITO – Hilo, HI – PNS sent out on 5/11/09, CL31 switched to the operational ceilometer at 10 AM HST on 5/13/09

KGEG- Spokane, WA – CL31 switched to operational ceilometer at 2100 UTC on 5/13/09.

KJKL – Jackson, KY – sent out the PNS on 5/8/09, CL31 switched to operational ceilometer at 10 AM EDT on 5/14/09

KGDP – Guadalupe Pass, TX – sent out the PNS on 5/14/09, CL31 switched to operational ceilometer at 9 AM CDT on 5/14/09

KCAR – Caribou, ME – PNS sent out on 5/8/09, CL31 will be switched to the operational ceilometer at 1300 UTC on 5/15/09

Joe's report initiated some discussion between the WFO's, the NWS regional focal points, and WSH personnel about when it was okay to switch the CL31 to the operational ceilometer. **Jerry and Joe informed the TRG all of the remaining 10 dual installation OT&E sites have approval to switch the CL31 to the operational sensor, at their earliest convenience, as long as the PNS went out before the switch was made. Jerry also stated a goal of having all 16 OT&E sites with dual installation switch to the CL31 to the operational sensor by May 22 if possible. Joe will send out (sent on 5/15/09) a separate e-mail to the 10 remaining OT&E sites that have not switched the CL31 to the operational sensor to remind the sites they have the go ahead to switch the CL31 the operational sensor as soon after they get the PNS out.** The WFO Amarillo, TX focal point had some questions about the Guymon, OK (GUY) OT&E site. GUY is an SCA site (SCA sites have always had problems), and they wanted to know when they were going to take off the CT12K sensor and replace it with the CL31 sensor. GUY deconfigured their CL31 a few weeks ago after multiple attempts to fix communications issues failed when they had the dual installation of CT12K as the operational sensor and CL31 as test sensor. **Jerry and Joe informed Amarillo, that GUY would be a Phase II OT&E site, and would install the CL31 as a stand alone sensor (no CT12K) when phase II starts in a couple of weeks.**

Next, Joe reported on the status of the shipment of CL31 ceilometers for Phase II of OT&E to Roanoke, VA (ROA), Phoenix, AZ (PHX), Oklahoma City, OK (OKC), and Columbus, OH (CMH). Joe reported SFSC personnel shipped the required limited production CL31's to ROA (1) and PHX (2) on May 12. Both focal points at WFO Blacksburg, VA and WFO Phoenix, AZ (Tempe) confirmed they have received the CL31's. The focal point from WFO Oklahoma City, OK also confirmed that they had received the CL31 from the

FAA National Airway Support Engineering Operations center in Oklahoma City, OK on May 13. Joe also reported SFSC personnel shipped the CL31's to CMH (2) on May 14. WFO Wilmington, OH should receive the CL31's from SFSC on May 15 or May 18. **The focal point at WFO Wilmington, OH also needs 2 sets of V2.0 DCP EPROMS, 1 more hardware mounting kit, and 2 ancillary kits.** Joe DeVost, OPS12, will ensure all 4 Phase II OT&E sites have all the required hardware and software to begin OT&E. Joe Fiore also sent an e-mail to Matt Noggle, WFO ILN, providing him with the link to the secure OPS12 website so he has access to all the information needed for OT&E.

Then, Jerry mentioned that he sent a query e-mail to Jay Lawrimore, NCDC, after the meeting. Jay responded NWS Forms A-1 and A-3 will need to be completed and sent to NCDC. Dave Mannarano sent the NWS ASOS focal points are reminder e-mail (5/13/09) informing them to have the Weather Forecast Office to complete these forms for the ceilometer change at ASOS in their County Warning Area and send them to NCDC (i.e. Stations.NCDC@noaa.gov). The U.S. Navy mentioned that they would contact their liaison at NCDC to have the appropriate forms filled out to announce the switch of the ceilometer to the CL31 at Beaufort Marine Air Station, SC (KNBC). OST 11, with a large support from SFSC, has been conducting an ice crystal study at several U.S. site including Bismarck, ND and Fairbanks, AK for the last several years. This includes tilting the CL31 ceilometers to minimize the effects of ice crystals which at times return a cloud "hit" back to the ceilometer. Don Bolton, (NWS Alaska Region Headquarters) will coordinate (with OST 11 help) moving the CL31 ceilometers that have been used for the ice crystal test from the test bed in Fairbanks, AK, to a test bed in Barrow, AK. This will allow further testing of the CL31 ice crystal study, because, climatologically, Barrow has 10 times more occurrences of ice crystals than any other site in the U.S.

- 3) Khien Nguyen, OPS24, summarized the ongoing V2.79X ST at SFSC and the US. Navy SPAWARSYSCEN, Charleston, SC. Khien reported the ST is going well at SFSC, and they will be running approximately 30 regression tests on three ASOS configurations at SFSC: 1) SCA, 2) ST1 (single DCP system) and 3) ST0 (3 DCP system) using only the CT12K and then using only CL31. If the V2.79X ST is successful, an OT&E will be conducted after the completion of V2.79V OT&E using a subset of V2.79V test sites with the CL31 as the operational ceilometer. The V2.79X OT&E will run 30 days. If successful, the V2.79X will replace V2.79V. If the V2.79X ST is not successful, then the option will be to deploy V2.79V with IFW V4.54 firmware. However, W/OPS12 will issue a Tech TIP to alert the site technicians of this potential problem using the TEST command while experiencing a faulty IFW thermistor. Khien also reported that V3.01 ST is ongoing (currently running IFW QC data sets) on the ASOS at WSH. If V2.79X ST is successful at SFSC and the U.S. Navy SPAWARSYSCEN, V3.01 firmware will be installed at SFSC, WSH, the U.S. Navy SPAWARSYSCEN, and perhaps a USAF site (Hurlbert Field, FL). V3.01 ST will commence after the firmware is successfully installed.

- 4) Finally, OPS24 (Joe Fiore) provided an update on the status of the test readiness for the OID/VDU Thin Client Logistics Replacement OT&E. Joe reported 72 OID thin clients are being shipped to NLSC and 50 VDU Thin Clients are ready to be shipped to NLSC by the thin client vendor. Joe reported there are three more prerequisite for OT&E yet to be complete: 1) When the OID thin clients (72) and the VDU thin clients (50) are in stock at NLSC; 2) when the thin client spares (one spare for each WFO participating in OT&E) are delivered to each WFO participating in OT&E; and, 3) successful completion of the thin client VDU ST at the U.S. Navy SPAWARSYSCEN test ASOS site in Charleston, SC. **The U.S. Navy (Ron Heatherdale) reported they had received two new repeater (line driver) devices for OPS12 to validate if it allows more than 2 VDUs to be “daisy chained” using the AXEL Thin Client.** (NOTE: However, this ST test of “daisy chained” VDU’s will not prevent the start of the OT&E since the NWS regional ASOS focal points verified only a few operational ASOS use the “daisy chain” configuration; those that have it, only have 2 VDUs).

The following is the accounting for each action items from the previous TRG meetings:

- a. Action Items 3, 6, 7 (11/17/08), and 12 (03/19/09) remain OPEN (No change until Phase II OT&E). **NO CHANGE**
- b. Action Item 8 (03/09/09), 11 (3/12/09), 17 (3/19/09), and 35(4/16/09) remain OPEN. (No change until OT&E is completed). **NO CHANGE**
- c. Action Items 44 (5/7/09), 46 (5/7/09), and 47 (5/7/09) were CLOSED.
- d. Part of Action Item 41 (4/30/09), Action Item 42 (4/30/09), Action Item 43 (5/7/09), and Action Item 45 (5/7/09) remain OPEN.

The specifics for each action item follow:

Related to CL31 OT&E:

Action Item 3 (11/17/09) - OPEN: Assigned to W/OPS12 and W/OPS24 regarding when Phase II OT&E sites will get their additional CL31. E-mail will be sent to ROA, CMH, OKC, and PHX to inform them when to except the second ceilometers. ROA, CMH, OKC, and PHX will receive their second CL31 ceilometer after the decision is made to make the CL31 the operational ceilometer. W/OPS12 will make sure that all four phase II OT&E sites have all the required hardware and software to begin OT&E. This includes:

Required hardware mounting kits for each site:

- Required ancillary kits for each site,
- Required number of sets of V2.0 DCP EPROMS, and,
- Putting V2.79V ACU firmware on the secure OPS12 website so each site can download

STATUS: PHX, ROA, and OKC have received their phase II CL31 ceilometers. CMH still needs two CL31’s, and they were shipped to CMH from SFSC on May 14, 2009.

CMH also needs 2 sets of V2.0 DCP EPROMS, 1 more hardware mounting kit, and two ancillary kits.

Action Item 6 (11/17/09) – OPEN: Assigned to ESA's to inventory all items they receive from NLSC and WSH. The ESA's will inventory all items received (CL31 ceilometer) CL31 hardware kits, V2.0 DCP EPROMS, V2.79V software (and documents obtained from the OPS12 website), and let the OT&E Test Director (Joe Fiore) know by e-mail (or phone) if the inventory list is complete.

STATUS: This action will remain OPEN until all 22 OT&E sites have the CL31 ceilometer installed along with the ASOS ACU V2.79V firmware and DCP V2.0 EPROMS.

Action Item 7 (11/17/09) - OPEN: Assigned to ESA's. The ESA's (NOTE: exception is Dan Lester for NWS Central Region) will notify the OT&E Test Director (Joe Fiore) by e-mail when they are ready to install the CL31 ceilometer, V2.0 DCP EPROMS (for sites that use EPROMS), and ASOS V2.79V ACU Software. They will also notify the OT&E test director when installation of all required material is complete.

STATUS: This action will remain OPEN until all 21 OT&E sites have the CL31 ceilometer installed along with the ASOS ACU V2.79V firmware and DCP V2.0 EPROMS.

Action Item 8 (03/09/09) - OPEN: WSH will download the SYSLOG error messages (1015, 1515, and 1537) from all 22 OT&E sites daily and will analyze the data to determine how many random sensor time out SYSLOG error messages are generated with a \$. SAIC contract personnel at Sterling Field Support Center, Sterling VA will perform the work. Jennifer Dover (W/OPS22) will report the statistics to the OT&E TRG at the weekly meetings during the OT&E. In preparation for this activity OPS24 personnel will analyze the same SYSLOG error messages for each 15 OT&E site (22 minus the 7 Meteorological Comparison Evaluation Beta sites) for 30 days PRIOR to the OT&E. This analysis will "baseline" the number of random sensor time out errors occurrences before V2.79 V is installed.

STATUS: This action will remain open until the completion of the OT&E.

Action Item 11 (03/12/09) – OPEN: Assigned to W/OPS24. Joe Fiore will provide the TRG a status update at each status meeting on the CL31 ceilometer and ASOS ACU V2.79V and DCP V2.0 EPROM installation until all 22 sites have completed this activity.

STATUS: This action will remain OPEN until all 21 OT&E sites have completed their installations.

Action Item 12 (03/19/09) – OPEN: Assigned to W/OST11. John Monte will query EMRS to obtain the serial numbers for the CL31 installed at the 22 OT&E sites. He will e-mail the appropriate contact if the information is not found in EMRS.

STATUS: This activity is ongoing, and will be complete once all 22 OT&E sites have provided the CL31 Serial number in EMRS or by email to John Monte.

Action Item 17 (03/19/09) – OPEN: Assigned to W/OPS12 and W/OPS14. Joe Devost and Fred Hauschildt will provide the disposal plan for the CT12K.

STATUS: Greg Dalyai and John Monte will discuss how to handle this issue. Greg Dalyai reported that NRC currently has 25 CT12K spare ceilometers and LRU's in stock. CAN AIR expressed interest in receiving the old CT12K ceilometers once they are taken off the ASOS's. The main question still revolves around who will pay for local disposal of the CT12K sensors and who will pay for the return of the old CT12K to NLSC. Another question that arose still pending is whether the entire CT12K unit will be returned or just components of the ceilometer? These scenarios will occur when the CL31 replaces the CT12K during national deployment of the CL31 ceilometer if V2.79V CL31 OT&E is successful.

Action Item 35 (4/16/09) - OPEN: Assigned to OPS12 and OPS24. Greg Dalyai and Jerry Dinges will track "Lessons Learned" to ensure the problems encountered and solutions found are published, as appropriate (i.e., test report, final Mod notes, Tech tips, etc.) to minimize repeated problems occurring during the installations of CL31 for general deployment.

STATUS: This action will remain OPEN until the OT&E Report is generated.

Action Item 41 (4/30/09) OPEN– The NWS (W/OPS22) agreed to ask the FAA how (and if the TIN was sufficient) the correct way to the CWO would be notified of the switch to the CL31 as the operational ceilometer, and if the CWO would need a method to report significant difference in cloud heights for the new CL31 ceilometer. A modification was made to this action item for Rick Parry to ask the FAA (Jerry Kranz, Paul Armbruster, Bing Huang) to inform the CWO that on the maintenance report processing page the new CL31 ceilometer will say "CL31", while the current CT12K ceilometer will say "ceilometer" on the report processing page. The action is to find out if the CWO have any problems with this slight change.

UPDATE: Rick Parry, Jerry Kranz, Bing Huang, and Jerry Dinges discussed this topic in detail. Jerry Kranz reported that he had asked Paul Armbruster about the change to the report processing page when the CL31 is configured, and Paul reported that there was no issue with that from the air traffic controllers, but that he would ask the head of the CWO if they had any issues with the change.

Action Item 42 (4/30/09) CLOSED: Combine with Action Item 3.

Action Item 43 (5/7/09) OPEN: Assigned to W/OPS12. Joe Devost and Greg Dalyai will coordinate with the field plans to discuss options for a possible national policy on the issue of the new solar winds program download problems on ET's laptops, and possible issues with local WFO access rights with the laptops and the LAN.

UPDATE: OPS12 will continue to investigate options for downloading the solar winds programs to the ET's laptop with NWSHQ, the NWS regions, and the individual WFO's.

Action Item 44 (5/7/09) CLOSED: Assigned to the PRH ASOS Focal Point. John Bush will coordinate with the WFO Honolulu, HI a date and time for sending out a PNS announcing the switch of the CL31 to the operational ceilometer. **COMPLETE**

UPDATE: The PNS was sent out by the Honolulu WFO on Friday, May 8, and the switch of the CL31 to the operational ceilometer (and the CT12K as the test ceilometer) occurred at Hilo, HI (ITO) at 10 AM LST on 5/13/09.

Action Item 47 (5/7/09) CLOSED: - Assigned to W/OPS24. Jerry Dinges will contact NCDC to find out how NCDC should be notified of the ASOS sensor change. **COMPLETED.**

STATUS: Jerry sent a query e-mail to Jay Lawrimore, NCDC, after the meeting. Jay responded NWS Forms A-1 and A-3 will need to be completed and sent to NCDC. Dave Mannarano sent the NWS ASOS focal points are reminder e-mail (5/13/09) informing them to have the Weather Forecast Office to complete these forms for the ceilometer change at ASOS in their County Warning Area and send them to NCDC (i.e. Stations.NCDC@noaa.gov).

The following new Action Items were assigned during the May 14, 2009 TRB meeting:

Action Item 48 (5/14/09): CLOSED Combine with Action Item 3.

Action Item 49 (5/14/09): Assigned to OPS24. Joe Fiore will write "Watch Item" TTRs for the two new problems discussed during the meetings' SYSLOG status report:

- 1) ASOS Clock Drift Problem synchronization with the AOMC seen at ANJ and CYS; and, 2) The warm start problem seen at PHX.

Action Item 50 (5/14/09): Assigned to OPS24. Joe Fiore will maintain a spreadsheet documenting the status of the Phase I OT&E sites' switch to the CL31 and provide it as an attachment to the weekly TRG minutes.

Action Item 51 (05/4/09): (CLOSED) Assigned to OPS24. Joe Fiore will send out an e-mail reminder to the 10 remaining Phase I OT&E sites they are authorized to switch the CL31 as the primary sensor and make the CT12K the "test" sensor at their earliest convenience once the WFO issues the PNS and they check before the switch to ensure the correct tilt of the CL31 is still between 3-5 degrees. **COMPLETED (5/15 and 5/18)**

UPDATE: Joe sent an e-mail on Friday, May 15 as well as Dan Lester for NWS Central Region sites. Joe subsequently sent a supplemental e-mail reminding the 10 sites to check the tilt of the CL31 and to ensure the OPL and DAPM know to send in the A-1 and A-3 forms shortly after the switch to notify NCDC of the change in ASOS sensors.

Action Item 52 (05/14/09): Assigned to U.S. Navy SPAWARSYSCEN, Charleston, SC. Ron Heatherdale will ensure the proper U.S. Navy liaison with NCDC is notified to contact NCDC about the switch to the CL31 May 8 for the ASOS at Beaufort, SC.

Action Item 53 (5/14/09): Assigned to OPS24 and the WFO's participating in OT&E. Joe Fiore will pass the link to the ASOS CL31 Implementation Plan provided by OPS24 (section 5-D) containing forms A-1 and A-3 to the WFO's participating in OT&E. The OPL or DAPM from each site participating in OT&E will then make sure that the necessary forms (A-1 and A-3) and send them to NCDC. The link to the forms and address for NCDC was provided earlier in this document.

Action Item 55 (5/14/09): Assigned to the NWS Alaska Region Headquarters and OST11. The NWS Alaska Region Headquarters will coordinate (with OST 11 help) moving the CL31 ceilometers from the test bed in Fairbanks, AK, to a test bed in Barrow, AK. This will allow further testing of the CL31 ice crystal study, because, climatologically Barrow has 10 times more occurrences of ice crystals than any other site in the U.S.

Action Item 56 (5/14/09): (CLOSED) Assigned to Walt Jameson (PHX ET) and OPS12. Walt will send the section (in PDF format) of the Vaisala CL31 Users Manual that discusses tilting the CL31 to horizontal and pointing at a building or known large object for calibration. **COMPLETE**

UPDATE: Walt e-mailed the section (in PDF format) of the Vaisala User's Manual that discusses tilting the CL31 pointing it at a building for calibration to OPS24 on May 15.

Action Item 57 (05/14/09): Assigned to OPS12. Greg Dalyai will confirm the NWS will NOT include as a requirement in the NWS ASOS Technical Manual S-100 to tilt the CL31's and point them at buildings for calibration.

Related to V2.79X/V3.01 ST:

Action Item 46 (5/7/09) CLOSED: Assigned to W/OPS24. Khien Nguyen will e-mail Ron Heatherdale a set of ASOS ACU V2.79X to install in their ASOS test system to support the ST. **COMPLETE**

Action Item 54 (5/14/09): Assigned to OPS24. Khien Nguyen will write the V3.01 System Test (ST) Plan, and coordinate ST at SFSC, WSH, US. NAVY SPAWARSYSCEN, and possibly a USAF site (Hurlbert Field, FL). This includes organizing resources to perform the ST test, assuring that data sets to test the IFW QC

logic algorithm and other V3.01 changes are run and that the ST schedule is written in the test plan and provided to each site participating in ST.

Related to OT&E for OID/VDU Thin Client Logistics Replacement:

Action Item 45 (5/7/09) OPEN: Assigned to W/OPS24. Joe Fiore will send an e-mail to the NWS Regional Focal Points asking if the ESA and ET's listed in the thin client OT&E test plan remain the same. OPS24 will then send out an email to the ESA's/ET's, NWS site focal points, and NWS regional focal points with a copy of the original thin client test plan, and a copy of the ATRB presentation.

UPDATE: Joe Fiore heard from Lew Harrington about changes in personal at Huntsville, AK (HSV). At the meeting, Dan Lester and Son Nguyen reported there were no updates to the ESA/ET list at OT&E sites in their regions. Joe also stated he had not heard from the NWS Eastern region focal point about any personnel changes at the OT&E sites in the Eastern region. Joe will check again with the Eastern region to see if there are any changes. As soon as Joe hears from the eastern region, he will send out the email to the ESA/ET's.

The next OT&E TRG meeting will be scheduled for **Thursday, May 21, at 2 pm EDT** to provide a status report on OT&E activities. There will only be an audio conference call. Please use the following information to dial into the meeting:

Telephone: 1-866-685-1879

Password: 8259362#