

**OT&E TRG “Wrap UP”
For the
ASOS AXEL Thin Client
OID/VDU LOGISTICS OT&E
Replacement**

Presented to the
Thin Client Test Review Group
NWS/OPS24

September 21, 2009

OUTLINE

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OT&E Purpose

Validate:

- The thin clients (OID and VDU) as a logistics replacement for old OID/VDU are properly integrated into the NWS logistics and repair system
- Thin clients are easily installed, and are suitable for operational use

OT&E Summary

- OT&E began on August 5th, 2009
- 10 OT&E sites successfully installed thin clients using Mode Notes 90 and 91. No problems reported
- The last site to install thin client OID/VDU was ABE on September 3, 2009



OT&E Summary

- Positive feedback from sites/users on display brightness and quality of thin client— generally very happy
- Some comments:
 - hard to find on off switches (MSO)
 - alarm too loud one site (MSO)
 - flashing red “pending observation” hard to see
 - touch buttons on monitors were very easy to modify by mistake by running hands on side of monitor.

OT&E Summary continued

- Two sites (RAP, ORD) had minor issues with thin clients
- RAP: double line text and garbled characters EXISTING problem with telephone lines and long cable run
- RAP: change modem strength to -3db for both modems fixed issue. (monitoring)

OT&E Summary

continued

- RAP: If double line text and garbled characters appear again, two line drivers (the line driver pair would be installed on either side of the modems' RS-232 connection) may be sent to RAP by OPS12
- ORD: (OID) FTI circuit failure. OID stopped working. A line driver in tower was disconnected and re-connected by FAA tech (with NWS ET present) - fixed problem

OT&E Objectives

Validate:

- Thin client hardware are ‘initial issued’ by OPS12 through the NLSC and shipped to WFO’s participating in OT&E -PASS
 - Successfully Demonstrated
- Spare thin client hardware also shipped to appropriate WFO’s from NLSC by OPS12. - PASS
 - Successfully Demonstrated
- The Mod Notes 90 (OID) and 91 (VDU) must be complete and accurate, providing all information required for the installation. - PASS
 - Successfully Demonstrated

OT&E Objectives

Validate:

- Communication interfaces between the ASOS Acquisition Control Unit (ACU) and the OID/VDU -PASS
 - Successfully Demonstrated
- Inventory hardware received from NLSC using the list of required hardware provided in the Mod Notes -PASS
 - Successfully Demonstrated

OT&E Objectives

Validate:

- Display functions for the OID/VDU -PASS
 - Successfully Demonstrated - bright and easy to read display one site said display was too bright (BOI)
- Audio alarms -PASS
 - Successfully Demonstrated - one site said alarm was too loud (MSO)
- Keyboard functionality for the OID -PASS
 - Successfully Demonstrated – no lock ups reported
 - NOTE: several sites said a keyboard lock up would be a serious problem if it took long to reboot the thin client – however no lock ups were experienced

OT&E Objectives

Validate

- Power loss recovery (Power loss and recovery will only be evaluated if it occurs naturally)
 - Unable to verify during OT&E
 - Was verified during ST at SFSC

OT&E Action Items Recommendations

- Add note to Mod Note to say it may take up to two minutes for OID to boot up
- Thin clients will be physically marked as OID or VDU to avoid confusion

OT&E TRG Action Item Status Questionnaires

- ET Questionnaires: received from 10 sites:
 - Overall excellent (1) or (2) response from 9 of 10 sites on all questions
 - Satisfactory response (3) from IAD on all questions
 - Two satisfactory (3) responses on question about finding a secondary outlet to accommodate the extra AC plug with thin client

OT&E TRG Action Item Status Questionnaires

- ATC/CWO Observer Questionnaires received from 5 Sites:
 - Overall excellent (1) or (2) response from all 5 sites
 - Comments received by 4 other sites were generally positive

OT&E TRG Recommendation

- Vote to move to limited (logistics only) replacement of OID's and VDU's
- OT&E was successful:
 - Thin clients will remain in place following the conclusion of the OT&E
 - The NWS ET's will dispose of the old OID's/VDU's locally
 - No general deployment of thin client replacement.
 - New OID/VDU issued as logistics replacement only

OID and VDU Logistics

- ASN: S100-11-2 (Operator Interface Device) and S100-11-A (Keyboard) shall be issued for replacement; delete upon exhaustion. Discontinued repair by NRC.
- ASN: S100-41 (Video Display Unit) shall be issued for replacement; delete upon exhaustion. Discontinued repair by NRC.
- ASN: S100-41-GREEN (VDU Alternate Display) currently being evaluated by NRC for standard use; may be uneconomical to repair. Anticipate discontinued repair by NRC.

OID and VDU Logistics

- Thin Client Terminal OID, VDU, Keyboard, and Display will be “Depot Use Only”; will require HQ coordination to order as “new logistic replacement”.
- Old stock of OIDs and VDUs will still be available for defective replacements until stock is depleted. Field sites shall dispose of old stock locally; No Returns to NRC.
- OT&E sites currently possessing Thin Client Terminals and peripherals will receive Thin Client Terminals and peripherals as logistic replacements for failures; requires HQ coordination.

OT&E OID Sites

Site	OID #	ACU Port	Modem Local	Connection	Location
ABE	OID-2	5-2	Mod 2	Hardwire	Tower
ACY	OID-1	6-2	Mod 3	Leased line	FAA Tower
IAD	OID-1	3-4	Hardwire	Hardwire	CWO in ATCT
IND	OID-6	5-4	Hardwire	Hardwire 200ftCAT 5	CWO in ATCT
IND	OID-6	5-4	Hardwire	FTI Intraplex	WFO
ORD	OID-2	6-2	Hardwire	FTI	Tower
HSV	OID-2	5-4	Hardwire	FTI	Tower

OT&E VDU Sites

Site	VDU#	ACU Port	Modem Hardware	Connection	Location
ORD	VDU-1	4-1	Modem 1	Leased Line	WFO
ABE	VDU-1	6-2	Hardwire	Hardwire	TRACON
IND	VDU-1	5-3	Hardwire	Hardwire 200ft CAT5	CWO
RAP	VDU-2	4-3	Modem 7	Leased Line	Ellsworth AFB RAC
FAY	VDU-1	5-3	Hardwire	Hardwire	TRACON
BOI	VDU-1	4-3	Hardwire	50FT cable	WFO
BOI	VDU-3	5-1	Hardwire	FTI	TRACON