

# **ASOS OID/VDU LOGISTICS REPLACEMENT USING THIN CLIENTS**

## **SYSTEM TEST RESULTS**

Presented to  
ASOS Test Review Board

NWS/OPS24  
May 7, 2009

# ASOS OID/VDU REPLACEMENT USING THIN CLIENTS

## Overview

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- Background
- Test Objectives
- Test Requirements
- Test Methodology
- Test Results
- Recommendations

# ASOS OID/VDU REPLACEMENT USING THIN CLIENTS

## Background

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- Original Plan used AXEL Thin Client for OID and ADDS Thin Client for VDU
- Original System Test Performed for OID and VDU
  - Results Presented August 7, 2008
- No Longer Able to Procure ADDS Thin Client
- Current System Test for VDU only
  - Similar Results Obtained May 7, 2009

# ASOS OID/VDU REPLACEMENT USING THIN CLIENTS

## System Test Objectives

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- To verify the following:
  - ACU successfully interfaces to OID/VDU
  - All Existing OID and VDU Display Functionalities Remain Available
  - Engineering Mod Notes #90(OID) and #91(VDU) for Thin Client complete and accurate

# ASOS OID/VDU REPLACEMENT USING THIN CLIENTS

## System Test Requirements

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- Approved System Test Plan
- Thin Client Hardware's
  - AXEL Thin Clients for OID and VDU
  - Samsung LCD monitors and OID Keyboards
  - Cables and Connectors
- ACU Software Versions V2.79D and V2.79V
- Draft Engineering Mod Notes
- Test Beds:
  - SFSC and WSH, SPAWARSCEN

# ASOS OID/VDU REPLACEMENT USING THIN CLIENTS

## System Test Methodology

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- Hardware and Software Installation
  - Verification of the Mod Notes
- 72-Hours System Stability Test
- Regression Tests
- Power and/or Comm Failures Tests
- Multiple Configurations:
  - Single OID/VDU and Multiple OID/VDU's
  - Short and Long(200ft+) hard-wired
  - Hard-wired with short-haul Modems
  - Leased Phone Line with UDS V.3225 Modems
  - FTI Line for VDU for FAA

# ASOS OID/VDU REPLACEMENT USING THIN CLIENTS

## System Test Results

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- Engineering Mod Notes Adequate
  - Only Minor Revision Necessary
- ASOS remains Stable with Use of Thin Clients
- All Existing Functions Available
  - Minor Adjustments Necessary
- All Regression Tests Successful
- OID/VDU Display Functions Recoverable after Power Loss and/or Comm Loss
  - VDU recovers automatically
  - OID needs reboot of Thin Client

# ASOS OID/VDU REPLACEMENT USING THIN CLIENTS

## Deficiencies

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- No Critical Deficiencies Found During ST
- About 30 Minor Discrepancies Found
  - Most Corrected through Changes made to OID/VDU Configuration Files and Forwarded to Vendors
  - Remaining 10 requires Operator Training (Appendix 1)
- One Minor TTR Generated (#181)
  - Related to Garbled Characters Displayed after Loss/Recovery of Power and/or Comm
- Three TTRs related to Keyboard Lockup (#179, #180, #182)
  - Requires reboot of OID Thin Client
  - Potential Operational Impact

# ASOS OID/VDU REPLACEMENT USING THIN CLIENTS

## Recommendations

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- New Thin Client OID/VDU can adequately replace existing monitors
  - Provide Simple, Low Cost, Drop-in Replacement
  - Provide improved Display Qualities
- OT&E should move forward
- OID Keyboard Lockup Should be Closely Monitored and Documented
  - Robust Keyboard Interface Desirable