

# **Test Case Stability\_1.0**

**for the**

**AWIPS**

**Contract**

**DG133W-05-CQ-1067**

**AWP.TE.SWCTR/TO8-0030**

Prepared for:

U.S. Department of Commerce  
NOAA/NWS Acquisition Management Division  
SSMC2, Room 17364  
1325 East-West Highway  
Silver Spring, MD 20910

Prepared by:

Raytheon Company  
STC Office  
6825 Pine Street  
Omaha, NE 68106

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Submitted By:

\_\_\_\_\_

Test Engineer

\_\_\_\_\_

Date

Approved By:

\_\_\_\_\_

Program Manager

\_\_\_\_\_

Date

\_\_\_\_\_

Mission Assurance Quality

\_\_\_\_\_

Date

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## Revision History

Revision	Date	Affected Pages	Explanation of Change
1.0	5 December	ALL	Initial Release

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## 1.0 SCOPE

See Software Test Plan.

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## **2.0 APPLICABLE DOCUMENTS**

### **2.1 Source Documents**

- None

### **2.2 Reference Documents**

- Software Test Plan for the Advanced Weather Information Processing System Project, Contract #DG133W-05-CQ-1067, 4 December 2007
- The AWIPS D-2D User's Manual Build 8.1
- Existing AWIPS 1 test procedures
- The VPN connection to the Silver Spring NWS AWIPS 1 test bed
- Release OB8.1 of the Weather Event Simulator (WES)

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### 3.0 TEST CASE DESCRIPTION

This test case demonstrates the stability of the software by running continuously with a KOAX filtered SBN live data flow while monitoring system resources for usage and log files for critical errors. This test case also involves running CAVE periodically checking for retrieval of current data. This test case is verified at the local Omaha test site on the test hardware prior to or during PDT. The test results are recorded in the Test Report. Stability issues exposed during the test, if any, are analyzed and required corrections determined. Corrections that cannot be applied prior to Delivery Testing are reported. As is the case of other tests, critical defects that prevent testing and evaluation of TO8 delivery functionality will be corrected prior to acceptance of the delivery. Non-critical defects (those for which a reasonable work around can be provided, or which does not prevent subsequent testing; see “TO8 Acceptance Criteria V9”) will be corrected during TO9 or a subsequent Task Order as appropriate.

#### 3.1 Assumptions, Constraints and Preconditions

- TO8 software has been installed successfully on the test cluster and the test workstations
- EDEX is running on both nodes of the cluster
- Live data from a SBN data feed with filtering for KOAX
- Monitoring cron for system resources running
- Mule and activemq log files configured to persist through the entire test interval

#### 3.2 Recommended Hardware

See Software Test Plan.

#### 3.3 Test Inputs

Test inputs are defined by the SBN acquisition patterns which will be set to KOAX. A copy of the file defining the acquisitions patterns will be included in the test report.

#### 3.4 Test Outputs

- Copy of SBN data acquisition patterns
- System resources will be logged and stored
  - Linux “uptime” logged on each node
  - Daily “ps -ef|grep java” logged on each node with timestamps
  - Daily “ls -lR” of hdf5 tree logged with timestamp
  - Daily file count of the “processing” directory logged with timestamps
  - Daily JMX snapshots of mule and activemq heap memory
  - Default SysStat system resource monitoring logged
- Mule Log files will be stored
- ActiveMQ Log files will be stored
- Issue analysis report, if required

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**4.0 TEST SCENARIO**

<b>Step</b>	<b>Action</b>	<b>Result</b>	<b>Pass/Fail</b>
1.	Start and let EDEX run without interruption for 14 days.	EDEX continues running for 14 days	
2.	Run CAVE daily on a workstation to display satellite, radar, and model data.	CAVE displays current satellite, radar, and model data	
3.	After the 14 day test period examine the system resources and log files to verify EDEX and CAVE are still running.	Mule logs indicate data is being ingested. System resources are still available	
4.	Collect logs and monitoring data.	Logs and monitoring data become part of the test report.	
	End of test.		

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**5.0 REQUIREMENTS VERIFICATION TRACEABILITY MATRIX (RVTM)**

Number		Test Step(s)
CAVE_TO8_040	AWIPS II shall ingest data continuously for 15 days without requiring a restart	ALL

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