

# **Test Case AvnFPS Weather Plot**

**for the**

**AWIPS**

**Contract**

**DG133W-05-CQ-1067**

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## Revision History

Revision	Date	Affected Pages	Explanation of Change
1.0	27 June 2008	ALL	Initial Draft
2.0	8 August 2008	7-9	Redlines per PDT

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*Contract DG133W-05-CQ-1067; Test Case AvnFPS Weather Plot*

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## Table of Contents

1.0	SCOPE .....	4
2.0	APPLICABLE DOCUMENTS .....	5
2.1	Source Documents .....	5
2.2	Reference Documents .....	5
3.0	TEST CASE DESCRIPTION .....	6
3.1	Assumptions, Constraints and Preconditions .....	6
3.2	Recommended Hardware .....	6
3.3	Test Inputs .....	6
3.4	Test Outputs .....	6
4.0	TEST SCENARIO .....	7
5.0	REQUIREMENTS VERIFICATION TRACEABILITY MATRIX (RVTM).....	9

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*Contract DG133W-05-CQ-1067; Test Case AvnFPS Weather Plot*

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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**

- Legacy NWS Test Case: Baseline\_AvnFPS\_WeatherPlot\_OB8.1.
- Software Test Plan for the Advanced Weather Information Processing System Project, Contract #DG133W-05-CQ-1067, August 2008.
- The Silver Spring NWS AWIPS 1 test bed application.
- Rational RequisitePro.

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*Contract DG133W-05-CQ-1067; Test Case AvnFPS Weather Plot*

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### **3.0 TEST CASE DESCRIPTION**

This test case verifies that the Weather Plot function displays METARS, current guidance, and past forecasts in form of a time series. This test case verifies the weather plot for a particular Site ID (TAF id).

#### **3.1 Assumptions, Constraints and Preconditions**

- TO9 software has been installed successfully
- CAVE, EDEX and pgAdmin III are running
- Data has been ingested
- Actions, Results, and Requirements highlighted in yellow indicate requirements and/or capabilities to be included in the scope of future task orders. They are included here for purposes of continuity and traceability with the original AWIPS I test case documents. Items highlighted in blue are capabilities added and/or Deficiency Reports (DRs) corrected since the Delivery Test.

#### **3.2 Recommended Hardware**

See Software Test Plan.

#### **3.3 Test Inputs**

Section 4.0 below contains the test procedures for this test case. Sections 2.2 – 2.9 of the Software Test Plan contain general test inputs applicable to all TO9 test cases.

#### **3.4 Test Outputs**

The Weather Plot dialog is displayed and the results outlined in section 4.0 are met. The AvnFPS GUIs to be tested include:

- AvnFPS Monitor
- AvnFPS Weather Plot
- AvnFPS Time Selector

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#### 4.0 TEST SCENARIO

Step #	Action	Result	Pass/Fail
1.	From CAVE, Mouse Button (MB) 1 click 'CAVE' -> 'New' -> 'Aviation' -> 'AvnFPS Menu...'. From the AvnFPS Menu, select forecaster name and MB1 click on the 'TAFs' button.	The AvnFPS Menu window opens.  The AvnFPS Monitor displays.	
2.	Select the 'Plot' button from the TAF Monitor GUI.  Verify the following buttons appear:  Display, Times, Print, Close, and Help. Also verify that the TAF and METARs check boxes are selected (by default).	The AvnFPS Weather Plot window displays.  Verified.	
3.	Verify the Weather Plot contains three separate graphs:  Ceiling, Visibility, and Wind.	The Weather Plot contains the following graphs:  Ceiling, Visibility, and Wind.	
4.	Verify the Weather Plot graphs represent time on the horizontal axis.	The Weather Plot graphs represent time on the horizontal axis.	
5.	Verify the center of the graph represents the current time.	The center of the graph represents the current time.	DR #1342
6.	Verify the number of hours (past and future) is configurable.	The number of hours (past and future) is configurable.	
7.	Verify the ticks representing Ceiling and Visibility are located on the vertical axis.	The ticks representing Ceiling and Visibility are located on the vertical axis.	
8.	To plot data for a site, select any TAF id from the Site ID drop down arrow.	METAR observations, along the latest TAF forecasts of ceiling, visibility and wind display.  Note: Depending on the configuration at the WFO, only a subset may visible.	
9.	Check the zoom feature by de/incrementing the factor from 1 to 3. Then MB1 click the 'Display' button.	Charts are redrawn with less/greater spacing along the x-axis.	
10.	MB1 click on the check boxes for each of the guidance (TAF, METAR, GFS-MOS, GFS-LAMP, ETA-MOS, NGM-MOS, and NAM-WRF Profile). Then MB1 click the 'Display' button.	The setting changes according to each of the selected guidance.	

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Step #	Action	Result	Pass/Fail
11.	Select the 'Times' button.	The AvnFPS Time Selector window displays, consisting of pull down menus for TAF and guidance source displays.	
12.	From the pull down menu, select 'previously issued TAFs' (or manually modify the forecast time). Then MB1 click the 'Display' button on the Weather Plot GUI.	The previous TAF forecast is plotted.	
13.	Repeat Step 7, selecting a previous time of these Data Sources (GFS-MOS, GFS-LAMP, ETA-MOS, NGM-MOS, and NAM-WRF).	The previous data of each guidance are plotted as indicated.	
14.	Close the AvnFPS Time Selector window.	The AvnFPS Time Selector window closes.	
15.	To print the window, select the 'Print' button.	The file is saved as an image in the specified directory:	
16.	Open a terminal and navigate to the specified directory from step 15. Then, open and print the saved image.	The saved image prints.	
17.	On the AvnFPS Weather Plot dialog, MB1 click the 'Close' button.	The AvnFPS Weather Plot application closes.	
18.	Close the AvnFPS Monitor and AvnFPS Menu windows.	The AvnFPS Monitor and AvnFPS Menu windows close.	
	End of test.		

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## 5.0 REQUIREMENTS VERIFICATION TRACEABILITY MATRIX (RVTM)

Number	Description	Test Step(s)
SYSR2073.87	The Weather Plot Dialog shall contain three separate graphs: ceiling, visibility and wind.	3
SYSR2073.88	The Weather Plot Dialog's graphs shall represent time on their horizontal axes.	4
SYSR2073.89	The center of the graph shall represent the current time.	5
SYSR2073.90	The number of hours past and future shall be configurable.	6
SYSR2073.91	The Weather Plot Dialog's graphs for both ceiling and visibility shall represent ticks on their vertical axes.	7
SYSR2073.94	The Weather Plot Dialog shall allow the user the capability to display plots for a selectable site identifier.	8
SYSR2073.95	The Weather Plot Dialog shall allow the user the capability to display plots of selectable data sources.	10
SYSR2073.96	The Weather Plot Dialog shall allow the user the capability to display plots for selectable issuance times.	11
SYSR2073.97	The Weather Plot Dialog shall allow the user the capability to zoom.	9
SYSR2073.98	The Weather Plot Dialog shall allow the user the capability to print.	15-16
SYSR2073.99	The Weather Plot Dialog shall allow the user the capability to close the dialog.	17

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