

Test Case AvnFPS Cig/Vis Trend

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	6-9	Redlines per PDT
3.0	4 September 2008	ALL	Redlines per DT

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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_CeilingVisTrend_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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3.0 TEST CASE DESCRIPTION

This test case verifies that the climatology tool (Ceiling and Visibility Trend – CigVis Trend), launches through the AvnFPS function, and displays forecasts of visibility and ceiling given initial conditions in the form of a histogram. Climatology data dependent functionality will mainly consist of GUI testing.

3.1 Assumptions, Constraints and Preconditions

- TO9 software has been installed successfully
- CAVE, EDEX and pgAdmin III are running
- Pre-populated sample data is used (versus actual climatology data)
- 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 AvnFPS Ceiling and Visibility Trend dialog is displayed and the results outlined in section 4.0 are met. The AvbFPS GUIs Tested includes:

- AvnFPS Menu
- AvnFPS Monitor
- AvnFPS Climate Menu
- Ceiling and Visibility Trend
- Save As
- Print

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4.0 TEST SCENARIO

Step #	Action	Result	Pass/Fail
Launches CigVis Trend from AWIPS popup menu			
1.	Mouse button (MB) 1 click on the workstation (blue screen).	The pop-up menu displays.	
2.	Select the AWIPS start-up menu.	The AWIPS start-up menu displays.	
3.	MB1 click 'CigVis Trend'.	The Ceiling/Visibility Trend GUI opens.	
4.	In the 'Sites' column select any site and MB1 click the 'Get' button to obtain the latest METAR observation.	The latest METAR for the selected site displays in the text field.	
5.	MB1 click the 'Decode' button.	Various widgets 'snap' to the values in the current METAR, denoted by blue arrow indicators. Ranges are represented by red-stippled pie wedges or bars.	
6.	Change pull down pane labeled 'Hours' to '6' and MB1 click the 'Draw' button.	The lower drawing window fills with 6 stacked columns displaying distributions of 'forecasted' flight categories for the next 6 hours from METAR observation time.	
7.	From the Ceiling/Visibility Trend window, under the 'File' pull down menu select 'Quit'.	The Ceiling/Visibility Trend window closes.	
Launches CigVis Trend from AvnMenu			
8.	From the menu bar, MB1 click 'CAVE' -> 'New' -> 'Aviation' -> 'AvnFPS Menu...'. Then, from the AvnFPS Menu window, select a forecaster's name and MB1 click on the 'Climate' button.	The AvnFPS Menu window appears. The AvnFPS Climate Menu window displays.	
9.	Select the 'CigVis Trend' button.	The Ceiling/Visibility Trend GUI opens.	
10.	In the 'Sites' column select any site and MB1 click on the 'Ceiling' radio button under the Element section.	The selected site is selected. The ceiling radio button is selected.	
11.	Change the pull down pane labeled 'Hours' to '12'. Then MB1 click the 'Draw' button.	The 'Hours:' is set to '12'. The lower drawing window fills with 12 stacked columns displaying distributions of forecasted flight categories for the next 12 hours from the METAR observation time.	
12.	From the Ceiling/Visibility Trend window, under the 'File' pull down menu select 'Quit'.	The Ceiling/Visibility Trend window closes.	

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Step #	Action	Result	Pass/Fail
13.	Close the AvnFPS Climate Menu window.	The AvnFPS Climate Menu window closes.	
Launches CigVis Trend from AvnWatch GUI			
14.	From the AvnFPS Menu, select forecaster name and MB1 click on the 'TAFs' button.	The AvnFPS Monitor window displays.	
15.	MB1 click on the 'Climate' button.	The AvnFPS Climate Menu window displays.	
16.	Select the 'CigVis Trend' button.	The Ceiling/Visibility Trend GUI opens.	
17.	In the Sites column select any site and MB1 click on the 'Joint' radio button under the Element section.	The selected site is selected. The Joint radio button is selected.	
18.	Change the pull down pane labeled 'Hours' to '6' and MB1 click the 'Draw' button.	The 'Hours:' is set to '6'. The lower drawing window becomes filled with 7 stacked columns displaying distributions of 'forecasted' flight categories for the next 6 hours from METAR observation time.	
19.	Hold MB2 over the blue arrows and move both the arrows and range bar simultaneously to a new value and range.	The new value for Date, Hour, Wind Direction & Speed, Ceiling and Visibility are selected.	
20.	MB1 click the 'Draw' button Note: A message "Retrieving data for XXXX (site id), will take a while" displays on the status bar.	New 6-hour flight category forecast based on updated conditions is retrieved.	
21.	Hold MB1 over the blue indicator, or close to the range window edge, and move the indicator to the desired value. Note: The numbers may be entered in the text box provided.	The new value or range is selected.	
22.	To save a displayed data to a file as graphic (image), select 'Save Image' under the 'File' pull down menu.	The Save As popup window displays.	
23.	Enter the file name with one of the extension: .bmp, .jpg, .png (e.g., imageceivistrend2.png). Then MB1 click the 'Save' button.	The file is saved in the specified directory and the Save As popup window closes.	
24.	To print an image file, select 'File' -> 'Print' Image'.	The Print pop-up window opens and contains the 'Palette' option of 'gray' and 'color'.	

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Step #	Action	Result	Pass/Fail
25.	Select either the 'gray' or 'color' radio button. Then MB1 click 'OK'.	An image is printed on 'lp1' (if 'gray' radio button is selected) or 'lp2' (if 'color' radio button is selected).	
26.	Under the 'File' pull down menu select 'Quit'.	The Ceiling/Visibility Trend window closes.	
27.	Close the AvnFPS Climate Menu, AvnFPS Menu, and AvnFPS Monitor GUIs	The AvnFPS Climate Menu, AvnFPS Menu, and AvnFPS Monitor windows close.	
28.	To verify the saved files from step 23, open a Terminal and navigate to the specified directory.	The file saved from step 23 displays on the lists.	
29.	MB1 click on a file to verify that it contains the information that was saved.	The file contains the correct information.	
30.	Close the Terminal.	The Terminal closes.	
	End of test.		

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5.0 REQUIREMENTS VERIFICATION TRACEABILITY MATRIX (RVTM)

Number	Description	Test Step(s)
SYSR2073.101	AvnFPS shall provide Climatology Viewing capability via the AvnFPS Menu's Climate Button or via the TAF Monitor's Climate Button.	8-9, 15-16
SYSR2073.102	The Climate Button shall allow the user the capability to start any of three distinct climatology GUIs: Wind Rose, Ceiling and Visibility Distribution, and Ceiling and Visibility Trend.	9, 16
SYSR2073.122	The Ceiling and Visibility Trend Dialog shall allow the user the capability to display a forecast of visibility and ceiling as a histogram for selected initial conditions.	3-6, 9-11, 16-21
SYSR2073.123	The Ceiling and Visibility Trend Dialog shall allow the user the capability to select initial conditions from: date, hour, wind direction, wind speed, ceiling, and visibility each through a dedicated widget embedded in the dialog.	18-19, 21
SYSR2073.124	The Ceiling and Visibility Trend Dialog shall allow the user the capability to select the location of interest, e.g.	4, 10, 17
SYSR2073.125	The Ceiling and Visibility Trend Dialog shall allow the user the capability to select the duration in hours.	6, 11, 18
SYSR2073.126	The Ceiling and Visibility Trend Dialog shall allow the user the capability to further refine the histogram by selecting a weather element or flight category.	17-20
SYSR2073.127	The Ceiling and Visibility Trend Dialog shall allow the user the capability to retrieve an observation via the Get button.	4
SYSR2073.128	The Ceiling and Visibility Trend Dialog shall allow the user the capability to decode an observation via the Decode button, which also initializes the selection widgets used to establish initial conditions.	5
SYSR2073.129	The Ceiling and Visibility Trend Dialog shall allow the user the capability to draw the histogram via the Draw button on the Ceiling and Visibility Trend Dialog.	6, 11, 18, 20
SYSR2073.130	The Ceiling and Visibility Trend Dialog's File Menu's Save Image selection shall allow the user the capability to save an image to a file.	22-23
SYSR2073.131	The Ceiling and Visibility Trend Dialog's File Menu's Print Image selection shall allow the user the capability to print an image.	24-25
SYSR2073.132	The Ceiling and Visibility Trend Dialog's File Menu's Quit selection shall allow the user the capability to exit the ceiling and visibility trend climatology.	7, 12, 26

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