Test Case Baseline Ingest Data

for

Contract DG133W-05-CQ-1067

Advanced Weather Interactive Processing System

Operations & Maintenance

AWP.TE.SWCTR/Baseline Ingest Data

Prepared for:

U.S. Department of Commerce
NOAA/NWS Acquisition Management Division
SSMC2, Room 11220
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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Change History

Revision	Date	Affected Pages	Explanation of Change
Draft	8 Apr. 2009	ALL	Initial Draft
1	4 May 2009	ALL	Slice 2 Update
2	5 May 2009	ALL	Incorporated steps for radar products
3	17 May 2009	ALL	Slice 3 Update
4	25 Aug 2009	ALL	Slice 4/ 5 Update
5	10 Oct 2009	ALL	Slice 6 Update

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1.0 SCOPE

See the AWIPS II Software Test Plan.

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2.0 APPLICABLE DOCUMENTS

2.1 Source Documents

- TO8 Test Case SOA_Plug-Ins 1.0.
- TO9 Test Case SOA_Plug-Ins 2.0.
- FCM-S2-1994 (Redbook Graphics).
- TO10 Test Case SOA Plug-Ins 3.0

2.2 Reference Documents

- AWIPS II Software Test Plan for the Advanced Weather Interactive Processing System Project, Contract #DG133W-05-CQ-1067, January 2009.
- Existing AWIPS 1 and AWIPS 2 test procedures.
- The AWIPS D-2D User's Manual Build 8.1.
- The Silver Spring NWS AWIPS 1 test bed application.
- Release OB8.2 of the Weather Event Simulator (WES).

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3.0 TEST CASE DESCRIPTION

This test case primarily demonstrates the capability of data ingested and stored, during TO11. It builds on the TO8, TO9, and TO10 SOA Plugins test cases and includes some of the test procedures from the test case. The purpose of the test case is to show that AWIPS II ingests required data from the ldm.

The capability to ingest, store and display Red Book Vector Products will also be tested.

3.1 Assumptions, Constraints and Preconditions

- TO11 software has been installed successfully.
- AWIPS test driver installed and functional.
- CAVE, EDEX and pgAdmin III* are running.
- An internet connection is available.
- Live data flow containing the data types to be tested. Canned data can be substituted if the live data flow does not contain the data required to test a specific plug-in.
- The system has been running for at least 48 hours.
- The correct display of the data infers that the functionality of decode, ingest and storage is working correctly.
- Localization previously set.
- For Slice 3 delivery, steps 140-160 are to be run.
- For Slice 4/5 delivery, steps 161-185 are to be executed.

3.2 Recommended Hardware

See AWIPS II Software Test Plan, Section 2.2.

3.3 Test Inputs

Section 4.0 contains the test procedures for this test case. Sections 2.2 – 2.9 of the AWIPS II Software Test Plan contain general test inputs applicable to all TO11 test cases. Actions, Results, and Requirements highlighted in gray will not be executed. Refer to the 'Comments' column for explanation(s).

3.4 Test Outputs

The images and data will be displayed in CAVE for Redbook products. CAVE will be used to display the ingested plug-in data.

* Any acceptable database query tool/process can be used

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4.0 TEST SCENARIO

Step	Action	Result	Pass/Fail
TO11-Slice 1 Test			
Setup a terminal window to view data ingested. This terminal window will be used for all the data types.			
1.	On a workstation, open a terminal window.	A terminal window is opened.	
2.	At the prompt, login to the server. ssh root@<server name> Ex. awips-int1 Enter password.	The server is logged in.	
3.	Change to the directory with the log files. cd /awips/edex/logs	The directory is changed to the location with the log files.	
4.	ls –lrt	A listing of the files is displayed.	
5.	Execute the following: grep –i 'Ingest: ' <latest edex logfile>	Entries with data ingested are displayed.	
Use pgAdmin III or a terminal window to view the database tables for each of the data types.			
6.	Access the database tables by one of the following methods: Open the PG Admin database tool. Connect to the testbed database and select the metadata database. Expand the database tree until the tables are displayed by selecting schema, awips, and select a table such as sfcobs. or Open a terminal window and login to the database server. ssh root@awips-db <database server> Enter password. (if needed) cd /awips/bin ls –al Verify 'psql' is listed. psql –U awips –d metadata –p5432 Enter password for user awips. (if needed) This will open a window to query the metadata tables. To quit the window, use \q and return key.	A window to access the database tables is opened and the tables can be queried.	

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Step	Action	Result	Pass/Fail
7.	Query the sfcobs table. Execute the following query substituting the table, field, and 'name' with the data type information that matches the logfile information. select * from awips.sfcobs where wmoheader like 'SMCN31 CWAO 041800 %'; (Change the data name to one from the log.)	The data entry in the database that matches the log file ingest entry is displayed. (Each of the data types ingested and stored in the database will be viewed following this step.)	
Display the data types viewed in the log files and the database tables.			
8.	From the test workstation open CAVE.	CAVE successfully launches. The 5-D panel (4 smaller panels on the left and one larger main panel) displays.	
Data - LIGHTNING			
9.	In the terminal window, execute the following command to display ingested lightning entries. grep –i 'Ingest: binlightning' <latest edex logfile>	The log entries for ingested lightning data are displayed.	
10.	In the database window, execute the following query changing the date to today's date. select * from awips.binlightning where datauri like '%2009-03-05%' ;	The entries of lightning data for the curren day are displayed.	
11.	Compare some entries in the log files with the inserttime of data in the database tables.	The log files and database entries times a compared.	
12.	From the CAVE menu bar click Mouse Button (ME 1 'Obs' and then 'Lightning' (located under Hazards).	A menu displays that contains the followin 5 options: 1hr Lgtng Plot, 15min Lgtng Plot, 15min Pos/Neg Lgtng Plot, 5min Lgtng Plot, and 1min Lgtng Seq.	
13.	Select 1hr Lgtng Plot.	A lightning plot containing the previous 1 hour lightning strikes displays on the mai panel.	
14.	Select 'Clear' from the menu bar.	The loaded lightning display is removed.	
15.	Select '15min Lgtng Plot'.	A lightning plot containing the previous 15 minutes of lightning strikes displays on th main panel.	
16.	Select 'Clear' from the menu bar.	The loaded lightning display is removed.	
17.	Select '15min Pos/Neg Lgtng Plot'.	A display of positive and negative strikes f the past 15 minutes displays.	
18.	Select 'Clear' from the menu bar.	The loaded lightning display is removed.	

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Step	Action	Result	Pass/Fail
19.	Select ‘5min Lgtng Plot’.	A lightning plot containing the previous 5 minutes of lightning strikes displays on th main panel. The DTG of the display should be within the past 5 minutes (depending on data receipt).	
20.	Select ‘Clear’ from the menu bar.	The loaded lightning display is removed.	
21.	During the next step for displaying the lightning data, compare the time of the displayed products with entries in the database tables and logfiles.	The displayed data time is compared to th database tables and log file entries.	
22.	Select ‘1min Lgtng Seq’.	Lightning strikes in one minute intervals fo the past 5 minutes displays. The DTG fo the display should be within the past 5 minutes (depending on data receipt).	
23.	Select ‘Clear’ from the menu bar.	The loaded lightning display is removed.	
DATA - SATELLITE			
24.	In the terminal window, execute the following command to display ingested satellite entries. grep –i ‘Ingest: satellite’ <latest edex logfile>	The log entries for ingested satellite data are displayed.	
25.	In the database window, execute the following query changing the date to today’s date. select * from awips.satellite where datauri like '%2009-03-05%' ;	The entries of satellite data for the current day are displayed.	
26.	Compare some entries in the log files with the inserttime of data in the database tables.	The log files and database entries times a compared.	
27.	During the next steps for displaying the satellite data, compare the times of the displayed product with entries in the database tables and log files.	The displayed data times are compared to the database tables and log file entries.	
28.	From the Satellite menu use MB1 and select an ‘IR image’.	An IR image displays. IR satellite imagery is displayed through the menu bar.	
29.	Select ‘Clear’ from the menu bar.	Satellite images are removed.	
30.	From the Satellite menu use MB1 and select a ‘Visible’ image.	A visible image displays. Visible satellite imagery is displayed through the menu bar.	
31.	Select ‘Clear’ from the menu bar.	Satellite images are removed.	
32.	From the Satellite menu use MB1 and select a ‘Water Vapor’ image.	A water vapor image displays. Water vap satellite imagery is displayed through the menu bar.	
33.	Select ‘Clear’ from the menu bar.	Satellite images are removed and the mai display is cleared.	
Data - GRIB			

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Step	Action	Result	Pass/Fail
34.	In the terminal window, execute the following command to display ingested grib entries. grep –i 'Ingest: grib' <latest edex logfile>	The log entries for ingested grib data are displayed.	
35.	In the database window, execute the following query changing the date to today's date. select * from awips.grib where datauri like '%2009 03-05%' ;	The entries of grib data for the current day are displayed.	
36.	Compare some entries in the log files with the inserttime of data in the database tables.	The log files and database entries times a compared.	
37.	During the next steps for displaying the grib data, compare the times of the displayed products with entries in the database tables.	The displayed data times are compared to the database table's entries.	
38.	Open the Volume Browser by MB1 'Volume', 'Browser'.	The Volume Browser display GUI appears	
39.	Display parameters from the latest ECMWF mode run by selecting 'Grid' -> 'ECMWF-HiRes' for the Sources. For the Fields select 'Basic' -> 'Temperature' and then 'Basic' -> 'Height'. For Planes select 'Pres' -> '500mb'. Load the selections. Note: Other available parameters may be substituted.	Contoured 500mb level temperature and height fields from the latest ECMWF model run displays. ECMWF grib data can be displayed.	
40.	1. Select Clear from the menu bar. 2. In the Volume Browser select 'Edit' -> 'Clear All'.	1. Gridded display is removed from the main pane. 2. Volume Browser entries are removed.	
41.	Display parameters from the latest NAM model ru by selecting 'Grid' -> 'NAM80' for the Sources. For the Fields select 'Basic' -> 'Omega'. For Planes select 'Pres' -> '700mb'. Load the selection. Note: Other available parameters may be substituted.	Contoured 700mb level omega fields (vertical velocity) from the latest NAM80 model run displays. NAM grib data can b displayed.	
42.	1. Select Clear from the tool bar. 2. In the Volume Browser select 'Edit' -> 'Clear All'.	1. Gridded display is removed from the main pane. 2. Volume Browser entries are removed.	

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Step	Action	Result	Pass/Fail
43.	Display parameters from the latest GFS model run by selecting 'Grid' -> 'GFS40' for the Sources. For the Fields select 'Basic' -> 'Rel Humidity'. Fo Planes select 'Misc' -> 'Surface'. Load the selection. Note: Other available parameters may be substituted.	Contoured fields of surface RH from the latest available GFS40 model run displays. GFS grib data can be displaye	
44.	1. Select 'Clear' from the menu bar. 2. In the Volume Browser select 'Edit' -> 'Clear Al	1. Gridded display is removed from the main pane. 2. Volume Browser entries are removed.	
45.	Display parameters from the latest RUC model run by selecting 'Grid' -> 'RUC80' for the Sources model for the grid. For the Fields select 'Basic' -> 'Temperature' and then 'Basic' -> 'Height'. For th Planes select 'Pres' -> '300mb'. Load the selection. Note: Other available parameters may be substituted.	300mb temperature and height contours from the latest RUC80 model display. RUC grib data can be displayed.	
46.	1. Select 'Clear' from the menu bar. 2. In the Volume Browser select 'Edit' -> 'Clear All'.	1. Gridded display is removed from the main pane. 2. Volume Browser entries are removed.	
47.	Close the Volume Browser. Select 'Volume' from the menu bar.	A drop down menu labeled "Volume" appears. A listing of bundled (families) o grib model data displays.	
48.	From 'Volume' on the menu bar select 'ECMWF' located under Families.	A bundled set of ECMWF parameters displays. ECMWF grib data can be displayed from the Volume drop-down lis	
49.	Select 'Clear' from the menu bar.	Gridded display is removed from the main pane.	
50.	From 'Volume' select 'NAM40' located under Families.	A bundled set of NAM40 parameters displays. NAM40 grib data can be displayed from the Volume drop-down lis	
51.	Select 'Clear' from the menu bar.	Gridded display is removed from the main pane.	
52.	Select 'GFS40' located under Families.	A bundled set of GFS40 parameters displays. GFS grib data can be displaye from the Volume drop-down list.	
53.	Select 'Clear' from the menu bar.	Gridded display is removed from the main pane.	
54.	Select 'RUC' located under Families.	A bundled set of RUC80 parameters displays. RUC grib data can be displaye from the Volume drop-down list.	
55.	Select 'Clear' from the menu bar.	Gridded display is removed from the main pane.	

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Step	Action	Result	Pass/Fail
Data – Upper Air			
56.	In the terminal window, execute the following command to display ingested upper air entries. grep –i 'Ingest: bufrua' <latest edex logfile>	The log entries for ingested upper air data are displayed.	
57.	In the database window, execute the following query changing the date to today's date. select * from awips.bufrua where datauri like '%2009-03-05%' ;	The entries of upper air data for the currer day are displayed.	
58.	For individual stations, execute the following query using the station id: Note: Other available stations may be substituted. Omaha – KOAX 72558 select * from bufrua where stationid like '72558';	The entry of upper air data for a specific station is displayed.	
59.	Compare some entries in the log files with the inserttime of data in the database tables.	The log files and database entries times a compared.	
60.	In CAVE, under 'Upper Air' select 'UA Plots', and '925hPa' located under RAOB.	A plot display over the US for 925hPa fron the latest RAOB data appears.	
61.	Clear the display.	The plot display is cleared.	
62.	Repeat the previous two steps for each of the mer choices listed below and display the data.	The upper air plots listed below display.	
	UA Plots → ---RAOB--- 150hPa 200hPa 250hPa 300hPa 400hPa 500hPa 700hPa 850hPa		
63.	Clear the display.	The plot display is cleared.	
Data - MARITIME (Buoy and Ship Observations)			
64.	In the terminal window, execute the following command to display ingested buoy and ship observation entries. grep –i 'Ingest: sfcobs' <latest edex logfile>	The log entries for ingested maritime data are displayed.	

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Step	Action	Result	Pass/Fail
65.	In the database window, execute the following query changing the date to today's date. select * from awips.sfcobs where datauri like '%2009-03-05%' order by reporttype ; Search for entries with "reporttype" of 1003, 1004, 1005, 1006, and 1007.	The entries of maritime data for the curren day are displayed.	
66.	Compare some entries in the log files with the inserttime of data in the database tables.	The log files and database entries times a compared.	
67.	During the next steps for displaying the maritime data, compare the times of the displayed product with entries in the database tables and log files.	The displayed data times are compared to the database tables and log file entries.	
68.	In CAVE, ensure a cleared; CONUS map is selected as the display area. From the menu bar select 'Obs'. Under the Maritime category select 'Fixed Buoys'. (1004, 1005)	The latest observations from fixed buoys displays.	
69.	Clear the display. Under 'Obs' select 'Moving Maritime'. (1003, 1006)	The latest observations from ships and floating buoys displays.	
70.	Clear the display. Under 'Obs' select 'MAROB'. (1007)	The latest MAROB data displays	
71.	Select 'Clear' from the menu bar.	Maritime data is removed from the main pane.	
Data - METAR			
72.	In the terminal window, execute the following command to display ingested observation entries grep –i 'Ingest: obs' <latest edex logfile> |grep SAUS70	The log entries for ingested observation data are displayed.	
73.	In the database window, execute the following query changing the date to today's date. Note: Other available stations may be substituted. select * from awips.obs where datauri like '%2009-03-05%KOMA%' ;	The entries of observation data for the current day are displayed.	
74.	Compare some entries in the log files with the inserttime of data in the database tables.	The log files and database entries times a compared.	
75.	During the next steps for displaying the observatio data, compare the times of the displayed product with entries in the database tables and log files.	The displayed data times are compared to the database tables and log file entries.	
76.	Clear the display. Select 'Tools', 'Text Window" and in the AFOS Cmd: enter 'OMAMTROMA'.	A series of raw metar observations for Nebraska displays. Raw METAR observations can be retrieved and displayed.	

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Step	Action	Result	Pass/Fail
77.	Close the text window. Ensure a "clear" map centered on the CONUS is displayed in the main panel. Select 'Obs' from the CAVE menu bar.	A drop down menu bar displays providing list of observation types that can be displayed.	
78.	Select 'Surface Plot'.	The latest available decoded and ingested observations are displayed over the CONUS.	
79.	Clear the display. Under 'Obs', select 'Other Plots' Select each of the menu choices listed below and display the data. Note: Loop and/or zoom as necessary.	The surface plots listed below display.	
	Other Plots → 15 min Plot Surface Synoptic Plots		
80.	Select 'Clear' from the menu bar.	Observation data is removed from the main pane.	
81.	Back in the database window, examine the column headers. Look for the following headers: autostationtype, sealevelpress, mintemp24hr, maxtemp24hr, precip1hour, precip6hour, and presschange3hour.	These are all examples of columns that contain values found in the remarks section of METAR observations.	
82.	Scroll down through the columns. When remarks are reported, values will be found in these columns. Open the observation in the "report" column to confirm the value is found in the remarks section, RMK.	METAR remarks are decoded and stored in the AWIPS database.	
Data – Text Forecast Products (TAFs)			
83.	In the terminal window, execute the following command to display ingested TAF entries. grep –i 'Ingest: taf' <latest edex logfile> |grep FTUS43	The log entries for ingested TAF data are displayed.	
84.	In the database window, execute the following query changing the date to today's date. select * from awips.taf where datauri like '%2009-03-05%KOMA%' ;	The entries of TAF data for the current day are displayed.	
85.	Compare some entries in the log files with the insertime of data in the database tables.	The log files and database entries times are compared.	
86.	During the next steps for displaying the TAF data, compare the times of the displayed products with entries in the database tables and log files.	The displayed data times are compared to the database tables and log file entries.	
87.	From the CAVE menu bar, Mouse Button (MB) 1 click 'CAVE' -> 'New' -> 'Aviation' -> 'AvnFPS Menu…'.	The AvnFPS Menu window appears.	

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Step	Action	Result	Pass/Fail
88.	Select a user. With 'local' highlighted on the lower list, MB1 click the 'TAFs' button.	The AvnFPS Monitor window opens and displays the different sites and products.	
89.	Select a site (KOMA) button to load the TAF forecast.	The AvnFPS TAF Editor window opens wi the current TAF for the site displayed.	
90.	Compare the text window with the data in the database window.	The data is compared.	
91.	Close the text window.	The text window is closed.	
92.	Close the AvnFPS windows.	The windows are closed.	
Data – Mesonet Assumption: Dataflow is available from LDAD.			
93.	In the terminal window, execute the following command to display ingested mesonet entries. grep –i 'Ingest: mesowest' <latest edex logfile>	The log entries for ingested mesowest dat are displayed.	
94.	In the database window, execute the following query changing the date to today's date. select * from awips.mesowest where datauri like '%2009-03-05%' ;	The entries of mesonet data for the curren day are displayed.	
95.	Compare some entries in the log files with the inserttime of data in the database tables.	The log files and database entries times a compared.	
Data - METAR to SHEF (IHFS)			
96.	In the database window execute the following SQL query (change stationid if station data is not available): select * from awips.obs where stationid='KFET' an timeobs=(select max(timeobs) from awips.obs where stationid='KFET');	The latest observation from the selected METAR reporting station is displayed.	
97.	Note the stationid and timeobs fields from the selected obs.	Stationid:_____ timeobs :_____	
98.	In the terminal window with the logfiles, execute th following command to display ingested SHEF entries. grep –i 'PostShef: Posting process' <latest edex logfile> |grep FET	The log entries for ingested SHEF data ar displayed.	

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Step	Action	Result	Pass/Fail
99.	Access the IHFS database tables by one of the following methods: Open the PG Admin database tool. Connect to the testbed database and select the hd_ob83oax database. Expand the database tree until the tables are displayed by selecting schema, public and select a table such as height. or Open a terminal window and login to the database server. ssh root@awips-db <database server> Enter password. (if needed) cd /awips/bin ls –al Verify 'psql' is listed. psql –U awips –d hd_ob83oax –p5432 Enter password for user awips. (if needed) This will open a window to query the IHFS tables. To quit the window, use \q and return key.	A window to access the IHFS database tables is opened and the tables can be queried.	
100.	In the database window, execute the following query using the three character stationid and timeobs noted in step 97: select * from public.latestobsvalue where lid='FET' and obstime='2009-01-14 19:10:00';	One or more entries will be displayed.	
101.	Step 102 (following) compares various elements returned in step 100 to values displayed in step 96.		
102.	pe = TA : value = _____ deg F pe = TD : value = _____ deg F pe = PA : value = _____ inches pe = PL : value = _____ HPa pe = UD : value = _____ degrees pe = US : value = _____ mph pe = UG : value = _____ mph pe = XV : value = _____ miles	temperature : ____ C dewpoint : _____ C altimeter: _____ inches altimeterinpa: _____ Pa winddir : _____ degrees windspeed: _____ knots windgust : _____ knots visibiity : _____ miles	
Data - SHEF to IHFS			

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Step	Action	Result	Pass/Fail
103.	In the IHFS database window, execute the following query: select * from public.latestobsvalue order by obstim desc;	A listing of river reports and metar obs in the IHFS data base displays. River reports are normally 5 characters and in the form of ABRN1. Observations from Metars are 3 characters and in the form o AIA.	
104.	Scroll down through the lid and obstime columns.	Current data are being ingested into the IHFS database	
105.	Examine other data entries by viewing data in a couple of other tables. Execute the following query: select * from public.rawpp order by obstime desc;	A listing of precipitation reports display.	
106.	Examine the pp values, lid and obstimes columns.	Precipitation (if present) values are being ingested from Metar and river reports.	
107.	Repeat above 2 steps on the temperature table. Examine the value column.	Temperature values from metar observations are being stored in the SHE database.	
Data - Precipitation Processing (to IHFS)			
108.	In the IHFS database window, execute the following query: select * from public.latestobsvalue order by obstim desc;	A listing of river reports and metar obs in the IHFS data base displays.	
109.	Scroll down the entries and verify the date/times are current.	Current data is stored.	
110.	Execute the following SQL query: select * from public.latestobsvalue where product_id like '<select a SHEF product>' order by obstime desc;	The latest data from the SHEF observatior are displayed.	
111.	Execute the following SQL query: select lid, pe, value, obstime from public.latestobsvalue where pe like 'PP' order by obstime desc.	A listing of the station ID, precipitation indicator (PP), reported precipitation amount, and the time of the report appears.	
112.	Scroll through the listing.	You'll find precipitation reports being store in the DB for numerous stations.	
113.	From the last query select a lid, obstime and PP value for any station that has a value in the PP column of at least .01. Record the values.	lid: _____ obstime: _____ PP value: _____	
114.	Open the Hydro Perspective in CAVE D2D.	The Hydro screen is displayed.	
115.	On the menu bar, select LiveData, Station Reporting Status/ Latest Observations.	The Station Reporting Status GUI displays	

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Step	Action	Result	Pass/Fail
116.	Change 'Max # of Obs' to 'All'.	All locations are displayed in the GUI.	
117.	Find the station and obstime from above.	Precipitation values for lid and obstime match from what was retrieved earlier.	
118.	Close the Station Reporting Status GUI.	The GUI window is closed.	
119.	In the IHFS database window, \q to exit the database and close the IHFS database window.	The window is closed.	
Data - RED BOOK PRODUCTS The NCEP dropdown menu in cave contains selections to display red book products.			
120.	In the terminal window, execute the following command to display ingested redbook entries. grep –i 'Ingest: redbook' <latest edex logfile>	The log entries for ingested redbook data are displayed.	
121.	In the database window, execute the following query changing the date to today's date. select * from awips.redbook where datauri like '%2009-03-05%' order by inserttime desc ;	The entries of redbook data for the current day are displayed.	
122.	Compare some entries in the log files with the inserttime of data in the database tables.	The log files and database entries times a compared.	
123.	During the next steps for displaying the redbook data, compare the times of the displayed product with entries in the database tables and log files.	The displayed data times are compared to the database tables and log file entries.	
124.	Open CAVE, D2D 5 pane. Under the NCEP menu drop down select "SPC Convective Outlooks", "Day 1 Convective Outlook". Filename: PGWE46	The Day 1 Convective Outlooks displays. Compare to the database and log file entries.	
125.	Clear display. Repeat the previous step for the products listed in Table 1 below.	The products are displayed. Compare to the database and log file entries.	
TO11-Slice 2 Test			
Data – BUFR Storage to HDF5			
126.	In pgAdmin III, navigate to: <<AWIPS-DB>> -> 'Databases' -> 'metadata' -> 'Schemas' -> 'awips' -> 'Tables'	The list of tables displays.	
127.	MB1 click on 'bufrmos' to highlight the table.	The bufrmos table becomes highlighted.	
128.	View the bufrmos table and verify data is present i the table.	Verified.	
129.	In CAVE, MB1 click 'Local' -> 'LAMP/MOS Forecast' -> 'ETA' -> 'Probabilities' -> 'POP 12Hr	The 12 hour probability of precipitation dat displays.	
130.	Clear the data displayed on the D2D display.	The display clears.	
131.	MB1 click 'Local' -> 'LAMP/MOS Forecast' -> 'ETA -> 'Probabilities' -> 'POP 6Hr'	The 6 hour probability of precipitation data displays.	
132.	Clear the data displayed on the D2D display.	The display clears.	

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Step	Action	Result	Pass/Fail
Data – Radar/ORPG			
133.	In the terminal window, execute the following command to display ingested radar entries. grep –i 'Ingest: radar' <latest edex logfile>	The log entries for ingested radar data are displayed.	
134.	In the database window, execute the following query changing the date to today's date. select * from awips.radar where datauri like '%2009-03-05%' ;	The entries of radar data for the current da are displayed.	
135.	For individual products, execute the following quer using data from Table 2: select * from radar where icao like '<<Site>>' and mnemonic like '<<Abbv.>>';	The entry of radar data for a specific static and product are displayed.	
136.	Compare some entries in the log files with the inserttime of data in the database tables.	The log files and database entries times a compared.	
137.	In CAVE, in the D2D Perspective, MB1 click 'CAV -> 'Browser Classic…'.	The Classic Volume Browser displays.	
138.	Select 'Radar' for the data source. Then select each product in Table 2 and display th product.	Each product displays in the D2D display.	
139.	Clear display. Repeat steps 135-138 for the products listed in Table 2 below.	The products are displayed. Compare to the database and log file entries.	
TO11-Slice 3 Test			
Aircraft Communications Addressing and Reporting System (ACARS)			
140.	Open a terminal.	A terminal window opens.	
141.	Log on to the server.	The user is logged in on the server.	
142.	Navigate to /awips/edex/logs. Then for grep acars data in the latest log file and verify data is being ingested.	Verified	
143.	In pgAdmin III, navigate to: <<AWIPS-DB>> -> 'Databases' -> 'metadata' -> 'Schemas' -> 'awips' -> 'Tables'	The list of tables displays.	
144.	MB1 click on 'acars' to highlight the table.	The acars table becomes highlighted.	
145.	View the acars table and verify data is present in the table.	Verified.	
Model Sounding Products			
146.	In the terminal logged on the server, grep for modelsounding data in the latest log file and veri data is being ingested.	Verified.	

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Step	Action	Result	Pass/Fail
147.	In pgAdmin III, navigate to: <<AWIPS-DB>> -> 'Databases' -> 'metadata' -> 'Schemas' -> 'awips' -> 'Tables'	The list of tables displays.	
148.	MB1 click on 'modelsoundings' to highlight the table.	The modelsoundings table becomes highlighted.	
149.	View the modelsoundings table and verify data is present in the table.	Verified.	
Profiler Products			
150.	In the terminal logged on the server, grep for profiler data in the latest log file and verify data is being ingested.	Verified.	
151.	In pgAdmin III, navigate to: <<AWIPS-DB>> -> 'Databases' -> 'metadata' -> 'Schemas' -> 'awips' -> 'Tables'	The list of tables displays.	
152.	MB1 click on 'profiler' to highlight the table.	The profiler table becomes highlighted.	
153.	View the profiler table and verify data is present in the table.	Verified.	
154.	In CAVE, MB1 click 'Upper Air' -> 'West NPN time height' -> 'Neligh NE (NLGN1)'.	The profiler data for Neligh, NE displays.	
155.	Close the 'Profiler Plot' tab to remove the data from the display.	The data is removed from the display.	
Satellite and Model Soundings			
156.	In the terminal logged on the server, grep for goessounding data in the latest log file and verify data is being ingested.	Verified.	
157.	In pgAdmin III, navigate to: <<AWIPS-DB>> -> 'Databases' -> 'metadata' -> 'Schemas' -> 'awips' -> 'Tables'	The list of tables displays.	
158.	MB1 click on 'goessoundings' to highlight the table	The goessoundings table becomes highlighted.	
159.	View the goessoundings table and verify data is present in the table.	Verified.	
160.	Close CAVE, the database window, and terminal windows; test has ended.	CAVE, Database and Terminal windows are closed.	
TO11-Slice 4/5 Test			
Radar from ORPG			
161.	In the terminal logged on the server, grep for 'koax' data in the latest EDEX log file and verify data is being ingested.	Verified. The files with koax are being generated by the ORPG.	
162.	In pgAdmin III, navigate to: <<AWIPS-DB>> -> 'Databases' -> 'metadata' -> 'Schemas' -> 'awips' -> 'Tables'	The list of tables displays.	
163.	MB3 click on 'radar' to highlight the table.	The radar table becomes highlighted.	

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Step	Action	Result	Pass/Fail
164.	Under 'View Data' select 'View All Rows'.	A listing of all the radar files displays. Radar data are being successfully ingested into the AWIPS II DB.	
165.	Expand the datauri column.	Note that you will see files from the radar site established in the ORPG. As an example, koax files are being stored. Also, terminal radars should be showing such as tmci, tmsp, depending on the configuration.	
166.	Open CAVE. Under koax display two random products created by the ORPG such as Storm Total Precip and Velocity.	Data created by the ORPG is stored and can be displayed. (See Radar SIT cases for the rendering of radar displays in CAVE).	
Satellite Precipitation Estimate (SPE)			
167.	In the terminal logged on the server grep for ZETA98 in the latest EDEX log file and verify dat is being ingested.	Verified. If in a single server configuration hourly obs should be noted. In a clustere configuration may not see all the hours since the other server(s) may have processed some of the files.	
168.	In pgAdmin III, navigate to: <<AWIPS-DB>> -> 'Databases' -> 'metadata' -> 'Schemas' -> 'awips' -> 'Tables'	The list of tables displays.	
169.	Execute the following SQL: select * from grib where modelinfo_id = (select id from grib_models where modelname = 'SPE')	A listing of SPE files appears. SPE data are being successfully ingested into the AWIPS II DB.	
ASCAT			
170.	In the terminal logged on the server grep for ascat in the latest EDEX log file and verify data is being ingested.	Verified.	
171.	In pgAdmin III, navigate to: <<AWIPS-DB>> -> 'Databases' -> 'metadata' -> 'Schemas' -> 'awips' -> 'Tables'	The list of tables displays.	
172.	In pgAdmin III, navigate to: <<AWIPS-DB>> -> 'Databases' -> 'metadata' -> 'Schemas' -> 'awips' -> 'Tables' MB3 click on 'bufrascat' to highlight the table.	The bufrascat table becomes highlighted.	
173.	Under 'View Data' select 'View All Rows'.	A listing of all the bufrascat files displays. ASCAT data are being successfully ingested into the AWIPS II DB.	
QUIKScat			
174.	In the terminal logged on the server grep for QUIKScat in the latest EDEX log file and verify data is being ingested.	Verified.	

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Step	Action	Result	Pass/Fail
175.	In pgAdmin III, navigate to: <<AWIPS-DB>> -> 'Databases' -> 'metadata' -> 'Schemas' -> 'awips' -> 'Tables'	The list of tables displays.	
176.	In pgAdmin III, navigate to: <<AWIPS-DB>> -> 'Databases' -> 'metadata' -> 'Schemas' -> 'awips' -> 'Tables' MB3 click on 'bufrquikscat' to highlight the table.	The bufrquikscat table becomes highlighted.	
177.	Under 'View Data' select 'View All Rows'.	A listing of all the bufrquikscat files display QUIKScat data are being successfully ingested into the AWIPS II DB.	
NCWF			
178.	In the terminal logged on the server grep for ncwf the latest EDEX log file and verify data is being ingested.	Verified.	
179.	In pgAdmin III, navigate to: <<AWIPS-DB>> -> 'Databases' -> 'metadata' -> 'Schemas' -> 'awips' -> 'Tables'	The list of tables displays.	
180.	In pgAdmin III, navigate to: <<AWIPS-DB>> -> 'Databases' -> 'metadata' -> 'Schemas' -> 'awips' -> 'Tables' MB3 click on 'bufrncwf' to highlight the table.	The bufrncwf table becomes highlighted.	
181.	Under 'View Data' select 'View All Rows'.	A listing of bufrncwf files appears. NCWF data are being successfully ingested into the AWIPS II DB.	
High Density Winds (HDW)			
182.	In the terminal logged on the server grep for bufrhdw in the latest EDEX log file and verify dat is being ingested.	Verified.	
183.	In pgAdmin III, navigate to: <<AWIPS-DB>> -> 'Databases' -> 'metadata' -> 'Schemas' -> 'awips' -> 'Tables'	The list of tables displays.	
184.	In pgAdmin III, navigate to: <<AWIPS-DB>> -> 'Databases' -> 'metadata' -> 'Schemas' -> 'awips' -> 'Tables' MB3 click on 'bufrhdw' to highlight the table.	The bufrhdw table becomes highlighted.	
185.	Under 'View Data' select 'View All Rows'.	A listing of bufrhdw files appears. HDW data are being successfully ingested into the AWIPS II DB.	
TO11-Slice 6 Test			
SigWx Decoder			
186.	In the terminal logged on the server grep for bufrsigwx in the latest EDEX log file and verify data is being ingested.	Verified.	

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Step	Action	Result	Pass/Fail
187.	In pgAdmin III, navigate to: <<AWIPS-DB>> -> 'Databases' -> 'metadata' -> 'Schemas' -> 'awips' -> 'Tables'	The list of tables displays.	
188.	In pgAdmin III, navigate to: <<AWIPS-DB>> -> 'Databases' -> 'metadata' -> 'Schemas' -> 'awips' -> 'Tables' MB3 click on ''bufrsigwx" to highlight the table.	The bufrsigwx table becomes highlighted.	
189.	Under 'View Data' select 'View All Rows'.	A listing of bufrsigwx files appears. Signicant weather from BUFR data are being successfully ingested into the AWIPS II DB.	
190.	Expand the datauri column from the listing displayed above.	The datauri column is expanded to show the entire file name.	
191.	Examine the data types.	Entries for the following data types should be found: TROP, VTS, CLOUD, CAT, and JETS.	
SigMet Decoder			
192.	In the terminal logged on the server grep for "convsigmet" in the latest EDEX log file and verify data are being ingested for convsigmet,	Verified.	
193.	In pgAdmin III, navigate to: <<AWIPS-DB>> -> 'Databases' -> 'metadata' -> 'Schemas' -> 'awips' -> 'Tables'	The list of tables displays.	
194.	In pgAdmin III, navigate to: <<AWIPS-DB>> -> 'Databases' -> 'metadata' -> 'Schemas' -> 'awips' -> 'Tables' MB3 click on ''convsigmet" to highlight the table.	The convsigmet table becomes highlighted.	
195.	Under 'View Data' select 'View All Rows'.	A listing of convsigmet files appears. Convective sigmet data are being successfully ingested into the AWIPS II DB.	
196.	Expand the datauri column from the listing displayed above.	The datauri column is expanded to show the entire file name.	
197.	Examine the data types.	Entries for the following data types should be found: SIGE, SIGW, SIGC	
198.	In the terminal logged on the server grep for "airmet in the latest EDEX log file and verify data are being ingested for airmet,	Verified.	
199.	In pgAdmin III, navigate to: <<AWIPS-DB>> -> 'Databases' -> 'metadata' -> 'Schemas' -> 'awips' -> 'Tables'	The list of tables displays.	

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Step	Action	Result	Pass/Fail
200.	In pgAdmin III, navigate to: <<AWIPS-DB>> -> 'Databases' -> 'metadata' -> 'Schemas' -> 'awips' -> 'Tables' MB3 click on 'airmet" to highlight the table.	The airmet table becomes highlighted.	
201.	Under 'View Data' select 'View All Rows'.	A listing of airmet files appears. Airmet data are being successfully ingested into the AWIPS II DB.	
202.	Expand the datauri column from the listing displayed above.	The datauri column is expanded to show the entire file name.	
203.	Examine the data types.	Entries for a series of WAU* bulletins appear and are related to TANGO, ZULU, and SIERRA entries.	
204.	In the terminal logged on the server grep for "nonconvsigmet" in the latest EDEX log file and verify data are being ingested for nonconvsigmet,	Verified.	
205.	In pgAdmin III, navigate to: <<AWIPS-DB>> -> 'Databases' -> 'metadata' -> 'Schemas' -> 'awips' -> 'Tables'	The list of tables displays.	
206.	In pgAdmin III, navigate to: <<AWIPS-DB>> -> 'Databases' -> 'metadata' -> 'Schemas' -> 'awips' -> 'Tables' MB3 click on ''nonconvsigmet" to highlight the table.	The nonconvsigmet table becomes highlighted.	
207.	Under 'View Data' select 'View All Rows'.	A listing of nonconvsigmet files appears. Nonconvective sigmet data are being successfully ingested into the AWIPS II DB.	
208.	Examine the 'bullmessage' column from the listing displayed above.	The bullmessage column is expanded to show the entire file name.	
209.	Examine the bulletin headers.	A series of WSUS* bulletins should display (depending on the weather-requires severe turb/icing or IMC).	
210.	In the terminal logged on the server grep for "intlsigmet" in the latest EDEX log file and verify data are being ingested for intlsigmet,	Verified.	
211.	In pgAdmin III, navigate to: <<AWIPS-DB>> -> 'Databases' -> 'metadata' -> 'Schemas' -> 'awips' -> 'Tables'	The list of tables displays.	
212.	In pgAdmin III, navigate to: <<AWIPS-DB>> -> 'Databases' -> 'metadata' -> 'Schemas' -> 'awips' -> 'Tables' MB3 click on 'intlsigmet" to highlight the table.	The intlsigmet table becomes highlighted	
213.	Under 'View Data' select 'View All Rows'.	A listing of intlsigmet files appears. Intlsigmet data are being successfully ingested into the AWIPS II DB.	

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Step	Action	Result	Pass/Fail
214.	Expand the datauri column from the listing displayed above.	The datauri column is expanded to show the entire file name.	
215.	Examine the data types.	Entries for a series of bulletins appear and are related to Thunderstorm, turbulence and icing entries.	
LSR Decoder			
216.	In the terminal logged on the server grep for 'lsr' in the latest EDEX log file and verify data are being ingested for 'lsr'.	Verified. Should find entries for "Ingest: lsr".	
217.	In pgAdmin III, navigate to: <<AWIPS-DB>> -> 'Databases' -> 'metadata' -> 'Schemas' -> 'awips' -> 'Tables'	The list of tables displays.	
218.	In pgAdmin III, navigate to: <<AWIPS-DB>> -> 'Databases' -> 'metadata' -> 'Schemas' -> 'awips' -> 'Tables' MB3 click on 'lsr" t highlight the table.	The lsr table becomes highlighted.	
219.	Under 'View Data' select 'View All Rows'.	A listing of lsr files appears. lsr data are being successfully ingested into the AWIPS II DB.	
220.	Expand the datauri column from the listing displayed above.	The datauri column is expanded to show the entire file name.	
221.	Examine the data types.	Entries for a series of bulletins appear. Reports for HEAVYRAIN, STORMSURGE, DENSEFOG, TORNADOES, HAIL, etc., will appear. Note: Reports depend on the type of weather occurring across the US.	
End of TO11 Test			

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Table 1 – RedBook Products

Redbook Menu Buttons Testing			
Sub Menu	**Product**	**Menu Item text**	**Test Results**
SPC			
		SPC Convective Outlooks ->	
	PGWE46	Day 1 Convective Outlook	
	PGWI47	Day 2 Convective Outlook	
	PGWK48	Day 3 Convective Outlook	
	PJMB44	Thunderstorm Prob	
		Severe Thunderstorm Prob	
	PENE00	Day 1 Hail Outlook	
	PWNE00	Day 1 Convective Wind Outlook	
	PGNE00	Day 1 Tornado Outlook	
	PGNI00	Day 2 Combined Severe Outlook	
	PZNK00	Day 3 Combined Severe Outlook	
	PGNM98	Day 4-8 Composite Severe Outlook	
	PGNA00	Active Mesoscale Disc Sum	
		Fire Weather ->	
	PMWE98	Fire Weather Outlook - Day 1	
	PMWI98	Fire Weather Outlook - Day 2	
	PGNO98	Fire Weather Outlook - Day 3-8	
NCO			
		Precip & Stability ->	
	PEWA31	Daily Precipitation	
	PEWA32	Snow Cover Plot	
		Snow Images ->	
	PAWO82	Radar Summary	
	PAWO83	Radar Legends	
	PEWA33	Precip H2O Plot	
	PEWA34	Precip H2O Analysis	
	PRWA51	Sfc-500 RH plot	
	PXWA50	Lifted-K Index Plot	
		Temps & Weather ->	
	PTWA32	Observed Min Temps	
	PTWA31	Observed Max Temps	
	PTWO34	Normal Min Temps	
	PTWO33	Normal Max Temps	
	PTWA94	Frzg Lvl Plot	
	PTWA93	Frzg Lvl Analysis	
	PTIC94	Frzg Lvl/Turbulence Fcst	
	PGWA31	Wx Depiction Plot	
	PGWA32	Wx Depiction Analysis	
	PGIC42	Wx Depiction Fcst	
	PGIE43	24h Wx Depiction	
	PYWA31	Sfc Geo Wind Plot	

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Redbook Menu Buttons Testing			
Sub Menu	**Product**	**Menu Item text**	**Test Results**
	PYWA32	Sfc Geo Relative Vort	
HPC			
		Precipitation ->	
	PEIC61	Instantaneous Precip	
	PEI745	Day 1 Excessive Rainfall	
	Unknown	1-3 Day Excessive Rainfall	
	PEIC43	Precip Fcst--6hr accum	
	PEIE41, PEIK98	Precip Fcst--24hr accum	
	PENJ88	Sig River Flood Outlook	
		Day 1-3 Prob 4+ Inches Snow ->	
	PSBB04	Day 1 Prob 4+ Inches Snow	
	PSBC04	Day 2 Prob 4+ Inches Snow	
	PSBD04	Day 3 Prob 4+ Inches Snow	
		Day 1-3 Prob 8+ Inches Snow ->	
	PSBB08	Day 1 Prob 8+ Inches Snow	
	PSBC08	Day 2 Prob 8+ Inches Snow	
	PSBD08	Day 3 Prob 8+ Inches Snow	
		Day 1-3 Prob 12+ Inches Snow ->	
	PSBB12	Day 1 Prob 12+ Inches Snow	
	PSBC12	Day 2 Prob 12+ Inches Snow	
	PSBD12	Day 3 Prob 12+ Inches Snow	
		Day 1-3 Prob .25+ Inches Ice ->	
	PSBB25	Day 1 Prob .25+ Inches Ice	
	PSBC25	Day 2 Prob .25+ Inches Ice	
	PSBD25	Day 3 Prob .25+ Inches Ice	
	PEIO46	5 Day Total Precip	
	PEIY47, PETT00	6-10,8-14 Day Precip Anom	
	PEIV98	30 Day Precip Anom	
	PEIW*	90 Day Seasonal Precip Outlook	
	PENV*	50% POE Precip Outlook	
	Unknown	1-3 Day Total Precip	
	Unknown	4-5 Day Total Precip	
	Unknown	1-5 Day Total Precip	
		Temps & Weather ->	
	PTIO52	5 Day Max Temp Anomaly	
	PTIO53	5 Day Min Temp Anomaly	
	PYWK43	3-7 Day Max/Min/PoP	
	PTNK98	Day 3 Heat Index	
	PTNM98	Day 4 Heat Index	
	PTNO98	Day 5 Heat Index	
	PTNQ98	Day 6 Heat Index	
	PTNS98	Day 7 Heat Index	
	PTIY51, PTTU98	6-10,8-14 Day Temp Anomaly	
	PTIV98	30 Day Temp Anomaly	
	PTIW*	90 Day Seasonal Temp Outlook	

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Redbook Menu Buttons Testing			
Sub Menu	**Product**	**Menu Item text**	**Test Results**
	PTNV*	0.5 Mo (15-105 day) 50% POE Temp Outlook	
	PPVA01	MSL Pressure Analysis	
	PYIA01	Fronts Analysis	
	PPIC01, PPIE01, PPIG01	Fronts/Press	
	PPHK01, PPHM01, PPHO01, PPTG98, PPTR98	3-7 Day Fronts/Press	
	PSAO72	3-Day Low Tracks	
MPC			
		Marine Guidance ->	
	PYNA98	Tropical Surface Analysis	
	PGNE88	Dense Fog Fcst	
	PGNE98	Freezing Spray Fcst	
		West Atlantic	
	PWAA85	Atl 850MB Wind Anal	
	PWAA20	Atl 200MB Wind Anal	
	PWAA00	Atl Deep Layer Mean Cir	
	PWAA65	Atl Winds/Shear Anal	
	PWIA98, PWIE98	Wind/Wave	
	PPAE89	Fronts/Press Fcst	
	PWE*	Caribbean Wind/Seas Fcst	
		North Atlantic	
	PYAA89	Surface Analysis	
	PPAI89, PPAM89	Fronts/Press/Winds Fcst	
	PJAA88, PJAI88	Sig Wind/Wave	
		East Pacific	
	PWBA88	Eastern Pac Wind/Seas Anal	
	PWDA00	Pac Deep Layer Mean Cir	
	PWDA65	Pac Winds/Shear Anal	
	PWIA97, PWIE97	Wind/Wave	
	PPBE89	Fronts/Press Fcst	
		North Pacific	
	PYBA89	Surface Analysis	
	PPBI89, PPBM89	Fronts/Press/Winds Fcst	
	PJBA88, PJBI88	Sig Wind/Wave	
CPC			
		Threat Charts ->	
	PYIA88	Drought Monitor	
	PMNV88	Drought Outlook	
		3-10 Day Threat Assessment	
	PEIY50	Precipitation Fcst	
	PTIY98	Temp/Wind Fcst	
	PYIY88	Soil/Wildfire Fcst	
		6-10 Day Heat Index Fcst	
	PTAS90	>=85F for 3 days of 5	
	PTAS95	>=90F for 2 days of 5	

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Redbook Menu Buttons Testing			
Sub Menu	**Product**	**Menu Item text**	**Test Results**
	PTAS00	>=95F for 1 day of 5	
	PTNR98	Max Heat Index Outlook	
		8-14 Day Heat Index Fcst	
	PTAT90	>=85F for 3 days of 7	
	PTAT95	>=90F for 2 days of 7	
	PTAT00	>=95F for 1 day of 7	
	PTNT98	Max Heat Index Outlook	

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Table 1 – Radar Products

Radar Testing (via Browser Classic)					
Product	**Level**	**Site**	**Product Num.**	**Abbv.**	**Test Results**
256 Level 248 nm Dig Storm Total Precip (DSP)	10.0	koax	138	DSP	
124 nm Mesocyclone (MD)	0.0	tmci	141	MD	
16 Level 49 nm Reflectivity (Z)	0.0	tmci	181	Z	
16 Level 124 nm Reflectivity (Z)	0.5	kabr	19	Z	
16 Level 248 nm Reflectivity (Z)	0.5	kabr	187	Z	
16 Level 32 nm Velocity (V)	0.5	koax	25	V	
16 Level 124 nm Velocity (V)	0.5	kabr	27	V	
8 Level 32 nm Spectrum Width (SW)	0.5	koax	28	SW	
8 Level 124 nm Spectrum Width (SW)	0.5	koax	30	SW	
256 Level 124 nm Digital Hybrid Scan Refl (DHR)	0.0	koax	32	DHR	
16 Level 124 nm Composite Ref (CZ)	0.0	kabr	37	CZ	
16 Level 248 nm Composite Ref (CZ)	0.0	koax	38	CZ	
16 Level 124 nm Echo Tops (ET)	0.0	koax	41	ET	
124 nm Severe Wx Prob (SWP)	0.0	koax	47	SWP	
8 Level VAD Wind Profile (VWP)	0.0	kabr	48	VWP	
16 Level 124 nm Storm Rel Velocity (SRM)	0.5	kabr	56	SRM	
16 Level 124 nm Vert Integ Liq (VIL)	0.0	kabr	57	VIL	
186 nm Storm Track (STI)	0.0	koax	58	STI	
124 nm Hail Index (HI)	0.0	koax	59	HI	
124 nm Legacy Meso (M)	0.0	koax	60	M	
124 nm Tornadic Vortex Sig (TVS)	0.0	koax	61	TVS	
248 nm Storm Structure (SS)	0.0	koax	62	SS	
8 Level 248 nm Lyr 1 Comp Ref Max (LRM)	0.0	koax	65	LRM	
8 Level 248 nm Lyr 2 Comp Ref Max (LRM)	0.0	koax	66	LRM	
8 Level 248 nm Lyr 1 Comp Ref Max (APR)	0.0	koax	67	APR	
16 Level 248 nm One Hour Precip (OHP)	0.0	kabr	78	OHP	
16 Level 248 nm Storm Total Precip (STP)	0.0	kabr	80	STP	
256 Level 124 nm Digital Precip Array (DPA)	0.0	koax	81	DPA	
8 level 124 nm Supplemental Precip Data (SPD)	0.0	koax	82	SPD	
8 Level 248 nm Lyr 3 Comp Ref Max (LRM)	0.0	koax	90	LRM	
256 Level 248 nm 8-bit Refl Array (DZ)	0.5	koax	94	DZ	
256 Level 124 nm 8-bit Velocity Array (DV)	0.5	koax	99	DV	

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5.0 TO8 REQUIREMENTS VERIFICATION TRACEABILITY MATRIX (RVTM)

Number	Description	Test Step(s)
CAVE_TO8_18.22	CAVE shall display the Fixed Buoys plot product	
CAVE_TO8_18.23	CAVE shall display the Moving Maritime plot product	
CAVE_TO8_18.24	CAVE shall display the MAROB station plot product	
ADE_TO8_024	AWIPS shall contain Plug-Ins that decode and store data and metadata	
ADE_TO8_024.1	AWIPS shall contain a bin Lightning Plug-in	
ADE_TO8_024.1.1	The bin-Lightning Plug-in shall decode lightning metadata	
ADE_TO8_024.1.2	The bin-Lightning Plug-in shall store lightning metadata in the metadata repository	
ADE_TO8_024.1.3	CAVE shall display lightning data	
CAVE_TO8_016.1	CAVE shall display 1 hour binary lightning plots	
CAVE_TO8_016.2	CAVE shall display 15 minute binary lightning plots	
CAVE_TO8_016.3	CAVE shall display 15 minute positive/negative binary lightning plots	
CAVE_TO8_016.4	CAVE shall display 5 minute binary lightning plots	
CAVE_TO8_016.5	CAVE shall display 1 minute binary lightning sequence	
ADE_TO8_024.2	AWIPS shall contain a GINI Satellite Plug-in	
ADE_TO8_024.2.1	The GINI Satellite Plug-in shall decode GINI Satellite metadata	
ADE_TO8_024.2.2	The GINI Satellite Plug-in shall store GINI Satellite metadata in the metadata repository	
ADE_TO8_024.2.3	CAVE shall display GINI Satellite data	
ADE_TO8_024.3	AWIPS shall contain a Grib Plug-in	
ADE_TO8_024.3.1	The Grib Plug-in shall decode Grib metadata	
ADE_TO8_024.3.2	The Grib Plug-in shall store Grib metadata in the metadata repository	
ADE_TO8_024.3.3	CAVE shall display decoded Grib data	
ADE_TO8_024.4	The Grib Plug-in shall decode grib data necessary for the correct operation of the AWIPS II system	
ADE_TO8_024.4.1	The Grib Plug-in shall decode ECMWF data	
ADE_TO8_024.4.2	The Grib Plug-in shall decode NAM data	
ADE_TO8_024.4.3	The Grib Plug-in shall decode GFS data	
ADE_TO8_024.4.4	The Grib Plug-in shall decode RUC data	
ADE_TO8_024.5	AWIPS shall contain a RAOB (BUFR) Plug-in	
ADE_TO8_024.5.1	The RAOB (BUFR) Plug-in shall decode RAOB metadata	
ADE_TO8_024.5.2	The RAOB (BUFR) Plug-in shall store RAOB metadata in the metadata repository	
ADE_TO8_024.5.3	CAVE shall display RAOB data	
ADE_TO8_024.6	AWIPS shall contain a Text Plug-in	
ADE_TO8_024.6.1	The Text Plug-in shall decode text data	
ADE_TO8_024.7	AWIPS shall contain an Aircraft Plug-in	
ADE_TO8_024.7.1	The Aircraft Plug-in shall decode Aircraft metadata	
ADE_TO8_024.7.1.1	The Aircraft Plug-in shall decode AIREP Aircraft metadata	

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Number	Description	Test Step(s)
ADE_TO8_024.7.1.2	The Aircraft Plug-in shall decode RECCO Aircraft metadata	
ADE_TO8_024.7.1.3	The Aircraft Plug-in shall decode PIREP Aircraft metadata	
ADE_TO8_024.7.2	The Aircraft Plug-in shall store Aircraft metadata in the metadata repository	
ADE_TO8_024.7.2.1	The Aircraft Plug-in shall store AIREP Aircraft metadata in the metadata repository	
ADE_TO8_024.7.2.2	The Aircraft Plug-in shall store RECCO Aircraft metadata in the metadata repository	
ADE_TO8_024.7.2.3	The Aircraft Plug-in shall store PIREP Aircraft metadata in the metadata repository	
ADE_TO8_024.7.3	CAVE shall display Aircraft data	
ADE_TO8_024.7.3.1	CAVE shall display AIREP Aircraft data	
ADE_TO8_024.7.3.2	CAVE shall display RECCO Aircraft data	
ADE_TO8_024.7.3.3	CAVE shall display PIREP Aircraft data	
ADE_TO8_024.8	AWIPS shall contain a Synoptic Plug-in	
ADE_TO8_024.8.1	The Synoptic Plug-in shall decode Synoptic metadata	
ADE_TO8_024.9	AWIPS shall contain a Maritime Plug-in	
ADE_TO8_024.9.1	The Maritime Plug-in shall decode Maritime metadata	
ADE_TO8_024.9.1.1	The Maritime Plug-in shall decode ship synoptic Maritime metadata	
ADE_TO8_024.9.1.2	The Maritime Plug-in shall decode buoy synoptic Maritime metadata	
ADE_TO8_024.9.1.3	The Maritime Plug-in shall decode CMAN synoptic Maritime metadata	
ADE_TO8_024.9.1.4	The Maritime Plug-in shall decode MAROB Maritime metadata	
ADE_TO8_024.9.2	The Maritime Plug-in shall store Maritime metadata in the metadata repository	
ADE_TO8_024.9.2.1	The Maritime Plug-in shall store ship synoptic Maritime metadata in the metadata repository	
ADE_TO8_024.9.2.2	The Maritime Plug-in shall store buoy synoptic Maritime metadata in the metadata repository	
ADE_TO8_024.9.2.3	The Maritime Plug-in shall store CMAN synoptic Maritime metadata in the metadata repository	
ADE_TO8_024.9.2.4	The Maritime Plug-in shall store MAROB Maritime metadata in the metadata repository	
ADE_TO8_024.9.3	CAVE shall display Maritime data	
ADE_TO8_024.9.3.1	CAVE shall display ship synoptic Maritime data	
ADE_TO8_024.9.3.2	CAVE shall display buoy synoptic Maritime data	
ADE_TO8_024.9.3.3	CAVE shall display CMAN synoptic Maritime data	
ADE_TO8_024.9.3.4	CAVE shall display MAROB Maritime data	
ADE_TO8_024.10	AWIPS shall contain a Radar Plug-in	
ADE_TO8_024.10.1	The Radar Plug-in shall decode Radar metadata	
ADE_TO8_024.10.2	The Radar Plug-in shall store Radar metadata in the metadata repository	
ADE_TO8_024.10.3	CAVE shall display Radar data	

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Number	Description	Test Step(s)
ADE_TO8_024.11	AWIPS shall contain a TAF Plug-in	
ADE_TO8_024.11.1	The TAF Plug-in shall decode TAF metadata	
ADE_TO8_024.11.2	The TAF Plug-in shall store TAF metadata in the metadata repository	
ADE_TO8_024.12	AWIPS shall contain a METAR Plug-in	
ADE_TO8_024.12.1	The METAR Plug-in shall decode METAR metadata	
ADE_TO8_024.12.2	The METAR Plug-in shall store METAR metadata in the metadata repository	
ADE_TO8_024.12.3	CAVE shall display METAR data	
AWIPS_T08_030.4	The AWIPS system shall ingest METAR (WMO FM-15) observation data	
AWIPS_T08_030.5	The AWIPS system shall ingest SPECI (WMO FM-16) observation data	
AWIPS_T08_030.6	Refine the ADE 1.0 Metar plug-in by extending decoding into the remarks	
AWIPS_T08_031.1	AWIPS shall ingest binary lightning data	
AWIPS_T08_031.2	AWIPS shall decode binary lightning data	
AWIPS_T08_031.3	AWIPS shall store binary lightning data	

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6.0 TO9 REQUIREMENTS VERIFICATION TRACEABILITY MATRIX (RVTM)

Number	Description	Test Step(s)
SYSR2074	The AWIPS system shall implement Redbook Vector Rendering.	
SYSR2087	The AWIPS system shall implement the BUFR Decoder for Profiler Data.	
SYSR2088	The AWIPS system shall implement the BUFR Decoder for Model Soundings.	
SYSR2089	The AWIPS system shall implement the BUFR Decoder for Satellite Soundings.	
SYSR2090	The AWIPS system shall implement (ingest and storage) the Red Book Vector Products for products viewable from D2D menus.	

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7.0 TO10 REQUIREMENTS VERIFICATION TRACEABILITY MATRIX (RVTM)

Number	Description	Test Step(s)
SYSR3094	The AWIPS system shall implement the decoding of SHEF (Standard Hydrometeorological Exchange Format) data.	
SYSR3095	The AWIPS system shall implement the storage of SHEF (Standard Hydrometeorological Exchange Format) data in the IHFS (Integrated Hydrologic Forecast System) database.	
SYSR3096	The AWIPS system shall implement the storage of METAR data in the IHFS database.	
SYSR3110	The AWIPS system shall update the IHFS database and hibernate access objects to OB8.3 revision.	
SYSR3171	The AWIPS system shall implement the Metar-to-SHEF decoder capability.	
SYSR3173	The AWIPS system shall decode and store SHEF data.	
SYSR3338	CAVE shall display 30hr TAF data	
SYSR3339	The TAF Plug-in shall decode 30hrTAF metadata	
SYSR3340	The TAF Plug-in shall store 30hrTAF metadata in the metadata repository	
SYSR3341	The AWIPS system shall implement the Synoptic-to-SHEF decoder capability.	
SYSR3342	The AWIPS system shall implement the storage of Precipitation Processing data in the IHFS database.	
SYSR3343	The database files shall be purged automatically at a set interval.	

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