

# AWIPS OB9.2 Maintenance Final Release Notes

## Requirement Discrepancy Reports and Fixes in AWIPS OB9.2 Maintenance Release

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**Note:** This report is divided into three sections. **Section 1** states the Requirement Discrepancy Reports, **Section 2** states the fixed Discrepancy Reports and **Section 3** states additional notes for release 9.2.

## **Section 1: Requirement Discrepancy Reports**

### **Problem. Increase /data/local by 100GBs at RFCs.**

BCR 27 requested that the /data/local be increased by 100GB (to 148GB total) at RFCs to support development on the CHPS hydrologic software. **(DR 20932)**

### **Problem. Increase /home partition by 100GBs.**

BCR 29 requested that the /home be increased by 100GBs at all sites. **(DR 20931)**

### **Problem. Cannot Update Valid SVR After Hitting Save on Other SVR.**

While in severe weather, BGM saved a warning product to the text database without sending the warning product on the AWIPS network. This resulted in the inability to retrieve all earlier active warnings issued by the WarnGen application and follow up on those active warnings. The SST was able to reproduce this problem on the NMTW system. **(DR 20907)**

### **Problem. OB9.2: Add AWIPS 2 support to LDAD.**

1. Add a mechanism to transport LDAD observations (\*.decoded files) to EDEX. This will be accomplished by adding a new LDAD storage process ("routerStoreEDEX").
2. Add a mechanism to transport LDAD plain text products to EDEX. This will most likely require a modification to the existing routerStoreText process. **(DR 20906)**

### **Problem. OHD: Various minor anomalies in MPE Editor.**

Intensive regression testing noticed 3 previously existing limitations / anomalies in MPE Editor:

- 1) In DailyQC of Temperature, the PointReverseFilter slider has a max value of 110, but actual temperatures can be higher than that, so they cannot be filtered out.
- 2) In DailyQC of Freezing levels, the sliders are labeled '100s of feet', but the data displayed is obviously in 1000s of feet.
- 3) In the Gage table, the search for LIDs is inconsistent. It only works if the LIDs are sorted ascending. Sorted by anything else, the results are random. **(DR 20893)**

### **Problem. OB9 - AF: Add Java hooks for MHS.**

AWIPS migration will be making use of MHS to send data to other sites. The approach will be to wrap the AWIPS MHS code using the Java Native Interface (JNI) to provide translation between Java and C and allow the existing MHS code base to be used. This requires adding

additional functions to be added to C code that is compiled to libcoDDM\_DAL.so.

A new file, jni\_msg\_funcs.c, contains all of the modifications. No existing source files were change. The new JNI functions will have no impact on current AWIPS operation since they will never be called from non-Java applications.

The Imakefile and one of the low-level build scripts were changed to include jni\_msg\_funcs, but also to create a new shared library that resolves all dependencies since a new executable was not created. **(DR 20869)**

**Problem. AvnFPS: tpo indicator not monitoring properly.**

Monitoring of conditional groups in the terminal aerodrome forecast is not correct. This has a negative effect on aircraft flows in the national airspace as it often limits the availability of alternate airports, and generally degrades the usefulness of the product. **(DR 20866)**

**Problem. HydroGen in Backup Mode Generates Wrong Originator in XML files.**

It was found that, once a WFO switched to AWIPS OB9, HydroGen wrongly includes the office that is being backed-up in the originator attribute in both the Long (rsync version) and Short (HML version) of the HydroGen XML. An example is, DLH was running backup Hydrogen for MPX but the XML files generated have the originator names as MPX.

The originator attribute in the XML's <site> tag comes from the environmental variable "SITE\_IDENTIFIER". **(DR 20857)**

**Problem. GFE: Incorrect ETNs for NPW products.**

The Sunday (4/5) frost advisory and freeze warning products have both FZ.A and FZ.W with the same ETNs for different time periods in the same segment. **(DR 20850)**

**Problem. OB9.2: Add java 1.6 AWIPS COTS.**

A request was made and approved to add java 1.6 to the AWIPS COTS. The baseline using java 1.5, will not be modified, this new java release will be added in addition to the baseline java version. **(DR 20810)**

**Problem. AvnFPS: TUG fails when official TAF has winds in conditional groups.**

Wind in the official TAF conditional groups causes the TUG module to fail. **(DR 20786)**

**Problem. OB9.2 - AF: Disable channel configuration on CPSBN after system reboot.**

The CPs at PTR and RSA will feed specified products to EKA, in addition to the data that they feed locally. As the neighboring sites feed EKA with data, SBN feed must be disabled locally at EKA. For this to happen, all data channels will be disabled from receiving SBN data.

**(DR 20781)****Problem. NWRWAVES: Fails in process AFD, SYN and PNS products**

All products (AFD, SYN, PNS, etc) without a UGC code in the product, i.e., DCZ001-MDZ003>007..., will cause the NWRWAVES script to crash.

There were minor changes made to the OB9 version of the script to handle the overview section of the HLS product. However, this change caused a temporary checking variable to be undefined if the UGC code is not present in the product. Thus the undefined variable will crash the script and the file will not be processed.

The following is the OB9 AFD error reported by SLC (by reviewing the /awips/adapt/NWRWAVES/ERROR/fatalerror log files) and it could be other products like SYN or NPS for other sites:

```
=====
dx1-slc:ncfuser:\5$ cat fatalerror_090131001643.log
```

```
can't read "b": no such variable
  while executing
"expr $b-1"
  (procedure "ProductParse" line 164)
  invoked from within
"ProductParse $queuefile $PIL"
  ("foreach" body line 52)
  invoked from within
"foreach queuefile $fileToProcess {

    catch {unset watchstatus}
    catch {unset watchnumbers}
    set overview_flag "N"

    set inputfile [string range $queue..."
(file "./nwrwaves.tcl" line 5010)
```

**(DR 20738)****Problem. RADAR: Correct Radar Color Tables to Make Defaults.**

During the June 2008 OB9 PIT testing, one of the comments about radar displays concerned color tables. Specifically, the AWIPS default reflectivity and velocity color were not useful. Additionally, it is fairly well agreed upon from field personnel that the OSF reflectivity color tables also may not be the best choice for super-res reflectivity because of the increased noise in the data. Specific problems with color tables follow.

AWIPS GSD default reflectivity color table: a) transitions at moderate reflectivity are too stark which makes the product look very busy to the eye. b) blue-orange between 20-40 dBZ is distracting. AWIPS GSD default velocity color table: a) very poor at utilizing all 256 color levels, b) exhibits sharp transitions all over. OSF 8-bit velocity: a) does not utilize 256 data levels, b) not enough color contrast between 50-60 kts and 20 kts. AWIPS GSD default spectrum width color table: a) the 4-8 kts data stick out too much and make analysis difficult, b) the stronger 12-16 kts data is too dim. The 8-bit STP default color table is also recommended to be changed, because if color table changes are made, it makes sense to take the opportunity to also improve this widely used product's default color table.

The proposed default color tables have been discussed and agreed at the 12/10/08 AWIPS UIWG. See <http://www.wdtb.noaa.gov/modules/dualpol/colortables.htm> for examples and comparisons. The recommendation is not to remove any color tables. Rather, one would be added for each of these products and they would become the default. **(DR 20734)**

**Problem. Problem with Interactive Depictable time matching.**

(This was created from DR 20525 and is basically the same issue, but generalized.) If a graphic is first loaded where the green time is significantly older than the present (at least several hours), various data-based Interactive Depictables (such as FFMP and SAFESEAS) may receive bad inventories (containing a current-time instead of an actual data time) with which to time match. This seems to have to do with an existing utility: DisplayState - and the `getDisplayState().activeFrameIndex()` calls. This can return a no index condition (-1) even when frames have been loaded in the D2D prior to the Interactive Depictable has being loaded in the D2D. This was seen on TBDW and NHDA. This is also related to DR 20683 (as well as 20525). The result in both FFMP and SAFESEAS is an apparent data time that is the current time, not the desired actual data time, however, each interactive Depictable may have different time-managing logic. **(DR 20708)**

**Problem. GFE: Saving via a command-line procedure should trigger ISC.**

With OB9 allowing RFCs to fully utilize ISC, other changes need to be made to allow RFCs to incorporate the functionality into their operations. RFCs do not edit grids as WFOs do. Most use more automated procedures to populate the QPF data via a command-line procedure. In the current GFE infrastructure, this does not transmit ISC data.

As part of the incorporation of RFCs (DR 20159), changes need to be made to allow a site to choose whether an external procedure will transmit ISC data. This allows RFCs to operate as needed and WFO service backup to continue to work correctly. **(DR 20705)**

**Problem. NWRWAVES: Fails on 12/31/08 when expiration time crosses into a new year.**

On 12/31/08, many sites reported that NWRWAVES fails to process when the expiration time is set to the new year of 2009. WFO SGF opened a TT351066 for their failed HWO product as indicated by the NWRWAVES's red banner. The problem occurs because the two digit year "08" is being used to perform New Year addition which is illegal in TCL's octal format. Any years (e.g. "01" to "07") prior to 2008 would be fine but not 08 or 09. An emergency fix was provided to Kevin Johnson (NCF) to push out to the sites in late evening on 12/31/08 to alleviate the

problem. **(DR 20699)**

**Problem. SAFESEAS OB9: Table sometimes does not appear.**

At certain times of the hour (after the top of the hour and before the next hour's METAR reports start arriving), the SAFESEAS table fails to start up -- it can't sync up in time with the hourly valid times of the METARS data. This problem corrects itself when the new hourly data comes in (it stays in sync thereafter).

This bug also affects SNOW and the Fog Monitor. It is a high impact problem because it makes these apps difficult to use, but there is a workaround -- to first set the number of D-2D frames to 1 before loading the apps. The frames can be increased in number after the next hour's METARs start coming in. There is no fix currently available.

Update 02/10/09: DRs 20708 and 20683 look to be the same root problem as TT 354139 and all of this may be due to DRs 20653 and 20732 (radar update DRs).

Update 04/20/2009 by Xin: David Friedman confirmed the root cause for the problem described by this DR and all other extension applications (SCAN/DMD/FFMP/SAFESEAS/SNOW/FOG) was the changes made through DR 18020. In the meeting we had with the ASM team, we decided the fix would be made through DR 20708 -- one of our FFMP DRs because the GSD/ASM did not have any open DR to address this serious problem in OB9.2. The MDL applications have been seriously affected and the fix needs to be in the field ASAP. So the fix to the problem needs to be seen by the fix of DR 20708.

However, David found another issue for SS/SNOW/FOG. The D2D would be hang after the SS/SNOW/FOG was loaded, unloaded and then re-loaded for several times. Since we did not have an open DR for OB9.2 targeted, we'd use this DR to address the D2D hang problem.

Update 09/01/2009 by Churma: Vada saw seg fault behavior on lx2-tbdw. At MDL's request, the DR was sent back to ANALYST by S. Hooper to ensure that the fixed source file gets into the baseline. **(DR 20683)**

**Problem. HydroBase program aborts when null values are in hd\_ob9 database location table.**

Latitude and longitude values are not required in hd\_ob9 database location table. The HydroBase program does require non\_NULL values when certain configurations are set. For the WFO, this is not generally a problem because HydroBase is the only application used to populate the location table. The RFCs have other local (non-baseline) applications which they use to make entries into the location table where the lat/lon columns will be set to NULL. NULL values are valid and permissible as outlined in the table schema.

A solution to this problem is required. HydroBase could be modified to check for NULLs or the database schema could be changed to not allow NULLs in the lat/lon fields (this would require local apps and databases to be modified to conform). **(DR 20677)**

**Problem. SRM changes unexpectedly when changing storm track.**

When setting the storm track in WarnGen, the SRM display can unexpectedly switch from using STI as a data source to using the newly created storm track. This makes the SRM display unreliable.

This can happen even when D-2D is clearly using STI data when SRM is first loaded -- there is an "STI: <vector>" in the top left corner. After setting the track, however, the display changes to "TRK: <vector>".

This can also happen when using the Distance/Speed tool. This was confirmed on an OB8.3.2 system as well. The problem does not occur every time.

**Workaround:** To open the Radar Display Controls, select "Custom Storm Motion", and then select "Average Storm Motion from STI". (DR 20656)

**Problem. Radar products received via RMR may not update in D-2D.**

While receiving products via RMR, only the most recent elevation will auto-update in D-2D. A site can receive low-res/4-bit products from a radar via the SBN, but higher resolution products requested via RMR will not replace the low-res versions when they are for older elevations. Apparently this started in OB8.3.1, but it may be possible in OB8.3 as well.

**Workaround:** Reload the product. (DR 20636)

**Problem. GFE: Incorrect VTEC start time given for a zone whose hazard had not begun.**

ABR had a BZ.W in effect for much of their area with start times that varied. During an update, the forecaster grouped a bunch of zones together to have the start time be a few hours in the future. Most of these zones had a BZ.W that was already in effect, but at least one zone had a BZ.W start time that was in the future. When the WSW was generated, the VTEC start time for the segment showed all zeroes despite the fact that in at least one zone, SDZ016, the BZ.W had not begun.

This issue could likely be avoided by the forecaster not changing the start time of in-effect hazards. But once done, there is no workaround for the problem.

Logfiles from ABR are available upon request. (DR 20629)

**Problem. GFE: Start time of an already-in-effect hazard should not be able to be changed.**

During the early-season blizzard in the upper Midwest, ABR had a blizzard warning out for much of their area with start times that differed by zone. Some of the zones had the warning in effect when ABR decided to push the start and end times back and issue a WW.Y in the near term. Since the BZ.W was already in effect, the VTEC start time was all zeros which made it appear to customers as though both a BZ.W and WW.Y were both in effect at the same time. This is illegal. The headlines were correct.

The headlines and VTEC need to agree.

The only **workaround** for this issue is for the forecaster to not change the start time of a hazard that has already begun.

Logfiles from ABR are available upon request. **(DR 20628)**

**Problem. GFE: ISC grids not received due to lockfile.**

Midland failed to receive ISC grids from surrounding sites for a time until lockfiles .runLock and .runQueue were removed. They are an OB9 beta site.

This issue with ISC grids in GFE goes way back though, and seems like it was more common back in OB7.1 and OB7.2. **(DR 20627)**

**Problem. NWRWAVES OB9.2- Need a better way to update UGClookup.table file (ref:20571).**

In the past few years, the sites would update their UGClookup.table file via the AWIPS build deliveries. Thus, NWRWAVES always has one or more DR(s) in each build associated with the UGClookup.table update. In a recent DR\_20571 request, the DR Review team recommends a better way to handle this update process by using NOAA1 server similar to other AWIPS applications.

OPS23 staff members understand that they will have the “UGClookup.table” file to be removed from the AWIPS baseline files in order to make this file part of the National Datasets Maintenance (NDM) files on NOAA1. **(DR 20619)**

**Problem. Daily QC function doesn't properly handle Cooperative Observer Max/Min Temps.**

The Daily QC preprocessor uses the following rules to evaluate the validity of max/min temperature reports:

- 1) Make sure that the period represented by a maximum or minimum temperature report is completely contained within the DailyQC 12z-12z day. If it is, then,
- 2) Only use the max temp report if the max temp is greater than the currently stored max temp for the DQC day.
- 3) Only use the min temp report if the min temp is less than the currently stored min temp for the DQC day.
- 4) In the absence of max/min temperature reports, use the max/min values of the 6 hourly observed temperatures.

Many coop observer reports have valid times after 12Z; therefore, they fail step one above, and are discarded. A mechanism needs to be implemented to be able to include these cooperative observer reports. **(DR 20614)**

**Problem. Improper issuance of Hazcollect Products when return from Service Backup.**

When test ADR message (ADRPA) was sent at around Sept 30 1:15pm EDT, monitoring field offices for Sterling VA, Cleveland OH, State College PA, Buffalo NY, Mt Holly NJ, and Binghamton NY all reported successful broadcast except for Pittsburgh, PA.

After WFO Pittsburgh was able to resolve their AWIPS issues by Oct 1 4:00am, yesterday's 1:15pm EDT test ADR message was still sent through CRS and broadcasted with new and improper creation date and new and improper expiration time even though the original WMO message received in AWIPS had the proper Sept 30 1:15pm creation and proper duration value.

PBZ AWIPS finally came back up on line around 4am this morning after getting new parts in and our database was restored. Anyway all products in queue were received. While of course this AWIPS problem is a rare event, but it brought up an issue with the NWEM CAFE formatter that is a problem. What if there are delays in receiving a product and it results in a WFO not receiving a product till perhaps it has expired, or a product is sent with incorrect UGC codes, the formatter should have caught it and not created a fictitious expiration time in the CRS product of 2 days after the original expiration time.

In this case it was a test product and of course clearly labeled as a test so not a problem. But if this would happen with a real emergency, sending out a product saying a serious event is in effect, after it was over would be problematic. **(DR 20592)**

**Problem. OB8.3.1 : WG : CAN portion of text product missing on second creation.**

There is an issue when you perform the following steps:

- 1) Create SVR for more than one county and transmit.
- 2) Select Severe Weather Statement and CON from the Update List pull-down. (Select SVR you just transmitted)
- 3) Remove one of the counties from the Warning and Click "Create Text"
- 4) On the xt click "Enter" then click "Cancel" and "Yes".
- 5) From the WarnGen GUI click Update List from the drop-down menu and re-select your CON product.
- 6) Click Create Text to recreate the same product you just closed on the xt.
- 7) The outcome is a text product that is missing the CAN portion from the county that was removed in WarnGen.

**Workaround:** After step 4), select Severe Thunderstorm and then select Severe Weather Statement. That would restore the original CON.

**Note:** On one occasion, a crash of the WarnGen GUI occurred during this process. The crash

only happened once and is thought to be unrelated. Further, and independent, investigation of this issue will be performed. **(DR 20588)**

**Problem. Purging too many versions of the HI-RTMA products.**

The correct key for the NDFD Alaska MOS Guidance (NDFD/MOSGuide\_AK) is 1070000156 (note 156) however in the /data/fxa/gridPurgeInfo.txt file key 1070000157 (note 157) is erroneously defined as the key for the NDFD/MOSGuide\_AK product and only 2 versions are saved. Key 1070000157 is the key for the NDFD Hawaii Real Time Mesoscale Analysis (NDFD/HI-RTMA) and 24 versions of this product should be stored but due to the erroneous key definition in gridPurgeInfo.txt only 2 versions are stored. The gridPurgeInfo.txt file should be updated so that the NDFD/MOSGuide\_AK purging uses key 1070000156 instead of key 1070000157.

To verify that NDFD/MOSGuide\_AK uses key 156, run the "testGridKeyServer s" command as the fxa user on dx1. Another way to check this is to "grep 1070000156" in the /awips/fxa/data/localizationDataSets/AFC/gridNetcdfKeys.txt file at WFO AFC and "grep 1070000157" in the /awips/fxa/data/localizationDataSets/HFO/gridNetcdfKeys.txt file at WFO HFO. **(DR 20564)**

**Problem. AvnFPS: Use LAMP as input to rltg indicator.**

Current input to regression-based lightning forecasts is based on Nested Grid Model. The NGM will be retired in March 2009. MDL AvnFPS team proposes using LAMP 2-h thunderstorm probability as a replacement for current NGM based guidance. **(DR 20545)**

**Problem. AvnFPS: TUG code does not handle transition from warm to cold seasons.**

When transitioning from warm to cold season thresholds and exception is thrown when attempting to read thresholds. The resulting error causes TAF/LAMP guidance to be unavailable in the AvnFPS TAF Editor. **(DR 20544)**

**Problem. AvnFPS: Date/Time groups at beginning of months flagged incorrectly.**

This error occurs after the TAF format changes on 05 November 2008. When date/time groups within a TAF transition from the end of the current month to the first day of the next month, AvnFPS Syntax check flags the entries during the first day of the month as an error.

Example:

```
KIAD 301120Z 3012/0118 240005KT P6SM SCT080
  FM302100 290010KT P6SM SKC
  FM010200 300005KT P6SM SKC
```

The last line of the TAF will be flagged by the Syntax Checker as incorrect. It is the 'wrap around' from the end of the last month (30th or 31st) to the beginning of the next one (1st) that

causes the problem. Forecasters will be required to use the 'Clear Errors' option before being able to disseminate the TAF(s).

Once disseminated, the TAF buttons on the LHS of the AvnWatch GUI will turn orange, which is a false alert to a format error. The bug will be present until the 00Z TAF issuance on the 1st of each month.

The patch affects a few lines in a single file, TafDecoder.py. The code has been tested. Final verification of fix will be Friday, October 31st. **(DR 20543)**

**Problem. WarnGen: VTEC Immediate Cause missing for FLW/FLS Reservoir. (DR 20535)**

**Problem. RADAR: TLAS product of elev 1.0 is messed up with elev 0.8.**

The TDWR radar TLAS scans at elevation 0.8, 1.0, 3.4, 6.9... (see all the elevations in nationalData/tdwrElevations.txt). When storing the elevation based products, the elevations will match to a primary elevation angle specified in nationalData/tiltAngleGroups.txt. According to this file, 0.8 and 1.0 will match to the same elevation 0.9. The result is, elevation 0.8 and 1.0 product will be stored to the same file. And there is no way to display the elevation 1.0 products in the TLAS menu (only 0.8 is available).

This problem has been observed in site VEF and re-produced in our test bed.

The fix is simple. Modify file tiltAngleGroups.txt and let elevation 0.8 match to elevation 0.5.

The fix should like below:

```
...
0.5  0.4  0.8
0.9  0.9  1.1
...
```

Another problem was noticed on site VEF: Elevation angle 1.0 can not be added to the RPS list of TLAS. It is considered as a duplicate of elevation 0.8 by RadarServer and removed before sending to the SPG. **(DR 20534)**

**Problem. Add additional radar mosaic to MPE . (DR 20532)**

**Problem. GFE: Sites occasionally drop off of the IRT.**

GSD looked at the IRT connection code and didn't see anything out of line, but suggested a minor change. A Python exception is possibly being thrown and that is causing the registration thread to exit on these rare occasions. DR 20502 was written to improve the logging and possibly find the exception.

Currently the workaround is to bounce the ifpServer, which will cause it to re-register with the IRT. **(DR 20531)**

**Problem. Problem handling null DMD product.**

Lingyan Xin was at ARX (La Crosse) WFO last Thursday and noticed the SCAN DMD table and icon display did not update with the change of the elevation angles as it should be. Then she took a look on the "/data/fxa/radar/karx/DMD/current" directory to see if the radar ingest worked well. She confirmed the DMD ingest was not a problem. But the netCDF file was not updated \*AT ALL\* after the radar tilts hit the elevation of 2.5 degree because of the error shown in the HandleGenericMsg processor log file (see the attached). The problem occurred when the site changed the VCPs from "clear-mode" to "precip-mode" and then back to the "clear-mode". **(DR 20527)**

**Problem. OB8.3: OHD - HPE not displayed in D2D at HFO; N/A for FFMP; affects PR.**

The title succinctly describes the problem. Note that this problem will also affect other Pacific Region sites (Guam, Pacific Region HQ) if they are attempting to view and use the HPE grids. **(DR 20522)**

**Problem. Typos in tdwrDepictKeys.template for 3 tilt angles.**

Products entered into nationalData/tdwrDepictKeys.template that has tilt angles of 30.5, 40.5, and 50.5 instead need to have tilt angles of 35.0, 45.0, and 55.0. Those angles are correctly entered everywhere else, just not in those titles. Those titles determine how the mosaics are put together. **(DR 20521)**

**Problem. NWRWAVES: WarnGen format problem.**

The problem stems from how NWRWaves software "handles" short-fused warnings that contain reference in the text to more than one timezone. These short-fused warning products are issued from WarnGen.

Here is an example of a line of text in a severe thunderstorm warning and how NWRWaves composes it.

\* UNTIL 530 PM CDT/430 PM MDT/

This is how NWRWaves composes the text for CRS:

UNTIL 530 PM CENTRAL DAYLIGHT TIME SLASH 430 PM MOUNTAIN DAYLIGHT  
TIME

**(DR 20506)**

**Problem. D2D: Incorrect value/units displayed in DMD table.**

WDTB reported this problem:

llrotv, llg2g and mxrotv displayed in DMD table in D2D does not match the SCAN DMD table (llVr, llgtg and maxVr). The displayed units for those DMD attributes are kt (knot) but the values are actually in m/s (meter/second) as specified in /data/fxa/nationalData/DMD.cdl.

Those attributes have been correctly converted to knots in the SCAN table.

To re-produce the problem:

1. Load a DMD product to D2D: KXXX-->KXXX Graphics-->Digital Mesocyclone(DMD)
2. Display DMD table in SCAN: SCAN-->SCAN: KXXX-->Storm DMD Icons&Table. **(DR 20492)**

**Problem. GFE: MWS needs to be removed as VTEC product.**

OS21 has decided to no longer carry VTEC in the MWSs which are not follow-ups to SMWs. Since GFE creates these products, the MWS needs to be removed from the VTECMessageType.py file. **(DR 20488)**

**Problem. Ldad drops data during ldad processes are restarted.**

1. If there are products existed in /data/Incoming when the ldad processes are restarted, these products will be failed by newLDADdataNotification process. Then the failed products will not be recognized as "NEW" products and will not be processed again by newLDADdataNotification. The reason these products failed by newLDADdataNotification is these products are sent to CO\_Serv process before CO\_Serv process is ready to accept any data during restarting ldad processes.

This case also happens during BreakLog cron breaks the logs because Breaklog cron will restart LDAD processes.

**Workaround:**

Move the failed products out of /data/Incoming and put back in.

2. When BreakLog cron breaks the logs, if there are scp sessions going on, these sessions do not get purged and clog the data transmission across Gauntlet firewall. The entire LDAD system will be halted. All incoming data will be stuck in /data/Incoming. Only restart LDAD ingest system from PX2 will get LDAD data moving.

**(DR 20483)**

**Problem. GFE: HLS needs to be redesigned to meet field needs.**

The active tropical season thus far has uncovered serious issues in the current HLS. Due to an inefficient baseline formatter, which does not take advantage of any of the existing grids in GFE, numerous errors have occurred in critical operational products. Sites must copy and paste information from one segment to another in order to get a completed product, text is not captured effectively as in other products and information must be manually added which already exists in

the grids (probabilistic info, winds, waves, etc.). In complex cyclones, sites have taken up to 2 hours to complete one HLS. This is unacceptable.

To avoid a repeat of 2008, the HLS formatter needs to be redesigned to actually fit into current operations.

Workarounds have been attempted for this issue (ER HLS) but they are limited due to the lacking baseline HLS design. **(DR 20481)**

**Problem. GFE: MergeHazards should not give conflict for marine hazards and tropical watch.**

According to NWSI 10-601, marine advisories and warnings can coexist with tropical watches. Currently, GFE gives a merge conflict when those hazards coexist. The MergeHazards procedure needs to be updated to reflect NWS policy.

This issue has occurred several times since July.

The workaround is to ignore the merge conflict and continue. This is not a good practice as ignoring merge conflicts can cause serious issues in other areas, especially tropical. **(DR 20479)**

**Problem. FFMP: Use of forced FFG negative values.**

Apparently, if a user forces a negative value in the FFFG GUI, FFMP uses it as a negative value - and not an adjusted value. Values less than zero are caught in the code, but perhaps the forced values are not caught in the same way, so some exploration needs to be done to find out how to avoid the use of negative FFG values. The work-around is to have the site not force values less than zero (which are unrealistic anyway), though they may want to do this because the old FFMP allowed FFG to be adjusted based on a "+" or "-" modifier, but OB8.3+ versions of FFMP do not do this. **(DR 20459)**

**Problem. OB8.3: Error in SVS format causes lack of polygon display.**

LWX generated a severe weather statement (SVS) which did not display as expected. Instead of plotting a polygon, D-2D put hatch marks in the whole of all counties involved. This seems to have happened because of a leading "..." in a line of the "OTHER LOCATIONS" section of the statement. Failing at this point means that the LAT...LON section was not read, so the display defaulted to the full-county method.

LWX believes that this is the way the warning came out of WarnGen (i.e. rather than by any post-editing of the section).

SVS Statement below.

WWUS51 KLWX 141959  
SVSLWX

SEVERE WEATHER STATEMENT  
NATIONAL WEATHER SERVICE BALTIMORE MD/WASHINGTON DC  
359 PM EDT THU AUG 14 2008

DCC001-MDC033-VAC013-059-510-142030-  
/O.CON.KLWX.SV.W.0375.000000T0000Z-080814T2030Z/  
DISTRICT OF COLUMBIA DC-PRINCE GEORGES MD-CITY OF ALEXANDRIA VA-  
ARLINGTON VA-FAIRFAX VA-  
358 PM EDT THU AUG 14 2008

...A SEVERE THUNDERSTORM WARNING REMAINS IN EFFECT UNTIL 430 PM EDT  
FOR THE DISTRICT OF COLUMBIA...CITY OF ALEXANDRIA...EAST CENTRAL  
FAIRFAX...ARLINGTON AND WEST CENTRAL PRINCE GEORGES COUNTIES...

AT 356 PM EDT...NATIONAL WEATHER SERVICE DOPPLER RADAR CONTINUED TO  
INDICATE A SEVERE THUNDERSTORM CAPABLE OF PRODUCING PENNY SIZE  
HAIL...AND DAMAGING WINDS IN EXCESS OF 60 MPH. THIS STORM WAS  
LOCATED NEAR REAGAN NATIONAL AIRPORT...MOVING EAST AT 18 MPH.

OTHER LOCATIONS IN THE WARNING INCLUDE BUT ARE NOT LIMITED TO THE  
MALL...BOLLING AIR FORCE BASE...WASHINGTON...US CAPITOL...ANACOSTIA  
...OXON HILL...FRIENDLY...NATIONAL ARBORETUM...SPRINGFIELD...  
MARLOW HEIGHTS...KENILWORTH...CAMP SPRINGS...SUITLAND...  
CAPITOL HEIGHTS...CLINTON...SEAT PLEASANT...AND DISTRICT HEIGHTS.

LAT...LON 3891 7689 3889 7688 3871 7690 3878 7723  
3891 7711  
TIME...MOT...LOC 1958Z 266DEG 16KT 3886 7703

\$\$

LISTEMAA/SMZ

**(DR 20454)**

**Problem. RUC precip rate graphics incorrectly scaled.**

When HPE/BiasHPE grids were added in OB8.3, precip rate became available for RUC. These fields are not correctly scaled. Addition of

\* RUC, RUC130, RUC236, PR  
in/hr|1417|.0| 4 | |f5.2|@|.8000F0FF| |7|\  
0.25 0.5 1 2 4 8 16

to contourStyle.rules and

\* RUC, RUC130, RUC236, PR

in/hr | 1417 | 0.0 | 0.005 | 16 |x|,c| 12 | 8 | 0.01 0.25 0.5 1 2 4 8 16

provides correct scaling (from Kg/m2/s - mm/s) to in/hr. (The problem and fix also apply to OB9.) **(DR 20453)**

**Problem. VB data loading incorrectly on top of plan view radar data.**

Since at least November of last year, in OB8.3 onward, if one loads VB data on top of any plan view radar data, the VB display is just plain wrong. **(DR 20441)**

**Problem. OB8.3: Update grib config file to decode AK HPCguide.**

POP Probability of precipitation for Alaska HPC grids are not decoded because the line TP\_254E3 POP is missing from master\_grib2\_lookup.txt.

Workarounds:

A.

1. Add the above missing line to DX3:/awips/fxa/data/master\_grib2\_lookup.txt
2. Restart Grib2Decoder on DX3

(Drawback: change will be overwritten with subsequent upgrade)

OR

B.

1. Create the file updateGridFiles.patch in /data/fxa/customFiles

It should contain the lines:

```
$fileGrab I d 'master_grib2_lookup.txt'
```

```
$fileGrab I c v 'master_grib2_lookup.txt'
```

2. Create the file master\_grib2\_lookup.txt in /data/fxa/customFiles

It should contain the lines:

```
#append
```

```
TP_254E3 POP
```

3. Run a -grids localization on DX3

4. Restart Grib2Decoder on DX3

**(DR 20420)**

**Problem. GFE: Watch should get CAN instead of UPG with ongoing warning.**

In the tropical program, a tropical storm warning can coexist with a hurricane watch. When the watch is dropped once conditions point to a TR-only scenario, GFE gives a UPG. The correct VTEC action is CAN as the TR.W is ongoing.

This same scenario can occur when a lesser elevation-based hazard (WW.Y) is cancelled while a higher threat (WS.W) continues in the same zone.

The logic needs to be changed so that a UPG is only possible when the action of the other hazard

is NEW, EXA or EXB. EXTs and CONs should result in a CAN for the lesser hazard.

This VTEC action discrepancy causes dissemination problems for our partners.

There is no workaround operationally for this issue. **(DR 20417)**

**Problem. OB8.3: SPC watches incorrectly displayed over Lake Michigan.**

IWX reported that when a user pulls up the SPC Watches from the NCEP/Hydro drop down menu and tries to plot the watches, the marine zones on Lake Michigan are not included in the display. On the day for which the trouble ticket was opened, the first WOU5 was issued at 1755Z and included most of Lake Michigan and then WOU6 was issued a few minutes later to include the rest of the Lake. When looking at the display, the watch boxes almost completely excluded the lake.

A screen shot of this is attached, along with screen captures of the graphics from the SPC home page showing what counties were included. **(DR 20409)**

**Problem. Incorrect time zone in HWR Products for SJU The time zone is reading as Alaska time (AKDT) instead of Atlantic time (AST) for SJU in HWR product.**

In the HWR source codes, there are special treatments for ALASKA time zone. It was assumed that time zone starting with "A" will be ALASKA time zone. This is not true for SAN JUAN. San Juan's time zone is Atlantic, which also starts with "A". In this case, SAN JUAN's time zone was mistakenly taken as ALASKA time zone.

**(DR 20402)**

**Problem. AvnFPS: Balloon Message does not appear when mouse over 'wnd' indicator.**

While executing baseline test case on LX1-TBW3 (S2) has encountered that the balloon message does not display when mouse over the 'wnd' (yellow) indicator on the Grid panel of AvnWatch GUI. **(DR 20392)**

**Problem. AvnFPS: TAF No Significant Weather (NSW) not QC'd correctly**

LIX forecaster found that AvnFPS TAF 'Syntax Check' can produce misleading error messages when NSW is found in the TEMPO group. Further investigation at HQ reveal multiple scenarios involving NSW where Syntax Check failed to highlight the offending line, but mistakenly highlighted different portions of the TAF. **(DR 20391)**

**Problem. Two flash flood warnings with the same VTEC number.**

MEG site issued two FFWs in the same minute during a heavy rain event. One FFW warning was issued for Fayette County at 0402 UTCon April 1 while the other warning was issued for Desoto County with the same date time stamp. Both warnings were assigned ETN "34".

The fix in DR\_20276 automatically resolves the problem in this DR. **(DR 20338)**

**Problem. TextQC: Incorrect WarnGen FLS ETN Error Message.**

Several cases have occurred when the QC checker (on the XT) gives an incorrect error message saying the WarnGen VTEC ETN is incorrect. This delays the issuance of short duration warning products while the forecaster considers the error message. Two examples follow:

While testing WarnGen on lx3-nmtw (OB8.3) I received an incorrect ETN QC warning on xt3-nmtw in test mode. After I used "send" for a WBCFLSLWX, I received the QC warning "The value of your ETN, 0019, is much higher than the highest ETN in the text database." WarnGen created the correct ETN 0019 however the QC message is incorrect.

I checked fxatext for all WBCFLSLWX products (see listing below). The highest ETN for the FA.Y (my Areal Flood Advisory) was 0018, so my product was correctly assigned 0019. The highest FL.W was 0020 (RiverPro river flood warning or statement for forecast points). I "sent" the FLS FA.Y.0019 which you see below along with a subsequent FA.Y.0020 that I sent.

It appears that the logic for generating ETNs distinguishes between the ETN phenomena (FL RiverPro river floods, FA WarnGen areal floods) since it generated the correct ETN. The QC message (at "send" time) was incorrect and we should get it fixed. Qinglu knows about the problem.

The nmtw WarnGen environment is saved in directory dx1-nmtw:/data/fxa/wgnTT.20080612\_2000.

The nmtw fxatext summary follows:

```
dx1-nmtw{fxa}1: textdb -r ALL:WBCFLSLWX | grep NEW
/T.NEW.KLWX.FA.Y.0020.080612T2041Z-080613T0245Z/
/T.NEW.KLWX.FA.Y.0019.080612T1951Z-080613T0145Z/
/O.NEW.KLWX.FL.W.0020.080513T0200Z-080513T0945Z/
/O.NEW.KLWX.FL.W.0018.080513T1052Z-080514T1648Z/
/O.NEW.KLWX.FL.W.0019.080514T0000Z-080514T0600Z/
/O.NEW.KLWX.FA.Y.0018.080409T1918Z-080410T0115Z/
/O.NEW.KLWX.FA.Y.0017.080401T1510Z-080401T1815Z/
```

WFO LSX (OB8.2) received the same error on June 7 (TT 330730). WarnGen provided the correct ETN (0022) in a Small Stream Advisory FA.Y however the QC checker complained about the ETN. **(DR 20276)**

**Problem. RiverPro uses the leading 0 in the MND date the first 9 days of the month.**

RiverPro currently uses the leading 0 in the date in the MND header. This is against NWS policy (10-1701) and causes GFE VTECDecoder to fail when reading RP-generated FFAs, FLWs and FLSs the first 9 days of each month.

Many offices use the GHG Monitor to track all of their hazards and this defect prevents any affected products from being read and tracked.

The only workaround is for the sites to remove the leading 0 from the MND date before transmitting the product. **(DR 20269)**

**Problem. SRM display uses WarnGen track even though average STI is selected.**

The D-2D SRM display can use a number of sources for storm motion. The source is selected in the radar display controls window. The default is to use the average motion from the STI product.

Under some circumstances, the D-2D will use the storm track from WarnGen instead of the STI even though STI is selected in the radar display controls. In addition, this happens without any special notice to the user. It is possible to see what source is being used by looking at the text at the top left of the SRM display, but this is not very obvious.

This can cause a great deal of confusion and consternation for forecasters.

Workaround:

1. Reload the SRM product (may not be necessary)
2. Select "Custom Storm Motion" in the radar display controls.
3. Select "Average Storm Motion from STI" again.
4. Verify STI is being used: The top left of the display should have the text "STI:"

Note that there is separate case where reverting to another source is done by design: When the STI data is too old, D-2D will use a "better" source. However, it is still not made clear to the user that this is happening. **(DR 20191)**

**Problem. SE: GFE - Add AshFall Warning (AF.W) and Marine AshFall Warning (MH.W).**

WFOs need the ability to select an "AF.W" VTEC product type. This is for an AshFall Warning that will be issued under the NPW AWIPS ID. Note: currently WFOs can only issue AshFall Advisories (VTEC product type AF.Y). The AshFall warning should behave like all other NWS warnings with respect to upgrades, downgrades, etc.

In addition the enhancement includes the addition of the Marine Ashfall Warning, MH.W. **(DR 20012)**

**Problem. Small Enhancement: Provide user ability to order data for time series display**

Currently, in the Single Station Mode of the Time Series Display Control window, when a user selects a station, a list of elements available for plotting in the Time Series graph/table are displayed. The list is based on the SHEF Physical Element, Duration, Type/Source, and Extremum values. The list is also arranged in alphabetical order according to Physical Element. When there are multiple type/sources associated with one specific Physical Element, the items are listed alphabetically according to Type/Source.

The user should have the ability to define the order in which the elements will be displayed. This user-defined order should be able to be used as the default display list for a given location. **(DR 19013)**

**Problem. OB7.2 - AF: acq\_goesdesc utility displaying "valid date" field wrong.**

The acq\_goesdesc utility (which is used by developers to view all fields from GOES header) displays the century part of the date as 107 instead of 2007. This has to be fixed by adding century portion of the year. There was no trouble ticket generated for this problem, it was reported by a developer. This utility is not used by the field, so there is no impact to the sites. There is no operational impact nor does it have any other workaround except for code fix. **(DR 18958)**

**Problem. Neighboring offices do not see ISC grids during duration of SCEC hazard.**

The problem is that neighboring sites didn't see TBW's ISC grids while they had an SCEC hazard in effect. The operational impact is that the ISC grids of the site that issued the SCEC hazard are not visible to other sites while the hazard is in effect. The workaround is for the surrounding offices to add the SCS key code to their localconfig.py.

The discussion below is included for clarity.

The greater issue here that Mark Mathewson raised is that AWIPS in general should not drop the entire ISC grid it's receiving from another site just because it encounters a weather key that it doesn't understand.

The current OB7.2 s/w will continue this issue. When ISC receives a "key" that it doesn't understand, instead of corrupting the database, it will dump the grid on the floor. Unfortunately, it stops the entire iscMosaic process rather than continuing on with the next grid or next weather element. When multiple weather elements are sent in one message via ISC, grids processed up to the offending one will be properly stored, everything else after that will be ignored.

Personnel at GSD have thought a few times about making changes to this, to at least accept the other weather elements, and ideally, simply to ignore that particular "key" in that particular grid and continue processing. The priority never bubbled high enough and now the s/w is in Raytheon and Keane's domain.

a) iscMosaic should not stop processing other grids if it doesn't understand the weather key or discrete key in any particular grid, and

b) the "data" in the key should be dummied down until it is found acceptable so iscMosaic can continue. **(DR 18720)**

**Problem. DamCrest - fails to store new Dam Failure Scenario.**

When adding new items to scenario list it fails to save newly added items in the GUI.

*Error: Could not update Sd bin database table. Could not update Dam Cat Entry. (DR 15334)*

## **Section 2: Discrepancy Report Fixes**

### **Problem. WG: WarnGen reports "Bad follow selection string" when selecting a follow-up.**

Under certain circumstances, when selecting an item from the follow-up menu a Guardian pop-up error message appears that reads "Bad follow selection string...". It has not been determined if this problem occurred in OB9.1.

Steps to reproduce:

1. Issue a SVR.
2. In WarnGen, select the Severe Weather Statement product type.
3. Keep selecting "UPDATE LIST" in WarnGen until the CON followup become available for the issued product.
4. Wait 2 minutes.
5. Select the CON from the issued product. **(DR 21028)**

### **Problem. WarnGen crashes when followup is selected without clicking UPDATE LIST.**

WarnGen was found to reset when the following specific order of events was carried out: Ensure that there is at least one non-expired SVR in the textdb and that a fresh D2D is used.

- 1- Issue an SVR and transmit
- 2- Without clicking "Update List", select the most recent available "COR" product from the drop-down list in the WG gui.
- 3- Immediately select the "Other" radio button in the WG gui. WarnGen resets at this point. The D2D pane is not affected and the WarnGen gui re-launches automatically. At this point the user is able to select any product without further hindrance. This issue has been replicated on TBDW & NMTW. **(DR 21024)**

### **Problem. OB9.2:Ref.DR 20588: Segmented products can be created w/out CAN on 2nd issuance.**

The fix for DR 20588 has been interefered with by another code change since it was originally installed. The fix worked as expected after the orginal installation, but has since stopped working properly.

As detailed in DR 20588, the steps are as follows: (Note: The steps need to be followed exactly in order to recreate this issue and not the seperate WarnGen reset issue documented in DR 21018.)

- 1) Create SVR for more than one county and transmit.
- 2) Select Severe Weather Statement and CON from the Update List pull-down. (Select SVR you just transmitted)
- 3) Remove one of the counties from the Warning and Click "Create Text"
- 4) On the xt click "Enter" then click "Cancel" and "Yes".

- 5) From the WarnGen GUI click Update List from the drop-down menu and re-select your CON product.
- 6) Click Create Text to recreate the same product you just closed on the xt.
- 7) The outcome is a text product that is missing the CAN portion from the county that was removed in WarnGen. **(DR 21019)**

**Problem. OB9.2:WG: WG gui resets when re-selecting Followup product.**

The WarnGen gui resets when the following steps are executed (issue occurs for all products, not just SMW):

1. LX - Issue an SMW.
  2. LX - Create text for the follow-up MWS.
  
  3. XT - Cancel out of the sending process by either clicking cancel from the Header Block or the Text Window.
  4. LX - Click on the MWS-CON again in WarnGen (first or second after hitting UPDATE LIST) and WarnGen will reset.
- Again, this occurs with all products. **(DR 21018)**

**Problem. In re-creating default config files in OB9.2.**

Guardian is supposed to be able to re-create the default gcf files in /data/fxa/workFiles/Guardian, but as of Ob9.2, it seems that this crashes guardian instead. Code was inspected and the crash seems to occur in the middle of a stream write loop (operator<<), using the class 'this' member, which might suggest a memory issue, which sounds like a lot of the other memory issues popping up in OB9.2. To reproduce, just move/rename a given gcf file and then start Guardian, then check the contents of the re-created gcf file (which will be incomplete) and the contents of the Guardian logs. The work-around is to manually fix the any corrupted gcf files. Also - it is unlikely these default\*.gcf files will be deleted operationally in the first place, so that it is expected that the occurrence of this issue would not be widespread. Still - this looks to be another memory issue with OB9.2.

While running some regression we found that when a user is using the save, save as, and retrieve functionality the GUI will crash when the configuration file is selected and the OK button is pressed. This was not found to be an issue in the previous release (OB9.1). **(DR 21016)**

**Problem. OB9.2 AvnFPS - TPO/FuelAlternate Rule Doesn't Work.**

FuelAlternate rule does not work when examining the Tempo group condition. **(DR 21015)**

**Problem. Under riverpro->settings->vtec->menu-> graphical vtec, the graph won't pop up.**

Under riverpro -> settings -> vtec -> menu -> graphical vtec the graph will not pop up. User doesn't get an error and there is no other indication of a problem. User has tried several times.

Just to add a clarification on the steps needed to replicate this issue.

- Launch RiverPro.

- In the RiverPro menu bar, click on Settings -> Modify VTEC Settings.
- Click on the Graph VTEC button on the center right of the GUI.

The result should be that a river stage graph appears with lines indicating the VTEC start/stop times. In OB9.2, it does not launch. **(DR 21014)**

**Problem. Radar not displaying color in D2D after OB9.2 upgrade (Ref: DR 20734).**

TT378650 - RHA - Radar not displaying color in D2D after OB9.2 upgrade.

For a completely default OB9.2 RFC localization, one cannot display 88D data. **(DR 21011)**

**Problem. Text Workstation resets or attempts to reset ETN to 0001.**

TT 378667 (HGX) - Forecaster reported that he was prompted to use ETN of 0001 for a flood advisory.n

TT 379044 (BOX) - ETN was reset to 0001 for a special marine warning. It is not known if the forecaster was prompted.

There was no evidence of database connectivity problems that would cause the QC prompts.

Workaround is to be aware of the problem and to not choose to reset the ETN. **(DR 21005)**

**Problem. Default field setting for MPE is now the r mosaic, should be m mosaic.**

The users have a default field setting for when they open the MPE editor. It should pull from the rwprefs table in the ihfs db. Before the install, they had the default set to the m mosaic. Since the OB9.2 beta upgrade, the default is now the r mosaic. This should not have changed.

Workaround is to manually change the setting. **(DR 21004)**

**Problem. AvnFPS: Installation script duplicates monitoring rules.**

WFO BOU could not start AvnFPS after NCF applied the OB9.2 patch Tuesday (20 Oct) morning. The problem at BOU was unique to that site and should not reoccur at other locations.

However, while investigating this problem, it was discovered with cvt3.py (part of the installation) script which messed up monitoring rules for AvnFPS -- essentially activating two sets of nearly duplicate rules. Only one is needed. Having two sets of rules running simultaneously within AvnFPS at an operational WFO will result in erratic monitoring behavior from the forecaster's perspective because which rule 'dominates' in a given situation becomes random. Anything that affects AvnFPS monitoring capability in a bad way is considered major or critical problem.

If this is not fixed, given the subtle nature of the problem affecting the critical function of AvnFPS to monitor observations against forecasts, the duplicated rules would not be readily apparent to WFO users. Thus it would require all WFOs after OB9.2 installation to examine the rules in use at their office to determine whether there's a duplication problem and then fix it without causing more damage. **(DR 21002)**

**Problem. OB9.2 Beta: text workstation modification.**

In TT 377712, BOU reported that when trying to create a text product from scratch in the text editor the new functionality for finding non-headline lines beginning with ellipses was too robustly flagging headlines at very beginning of product containing no MND or segment header block. **(DR 21000)**

**Problem. OB9.2: Cannot edit WarnGen scratch products in practice mode.**

An error occurred when creating a Warning product in WarnGen. This only happens in practice mode. It seems to be fine in operational mode.

This is a problem with the 'textdb' command.

Workaround is to create symbolic links in /data/fxa/flatText:

```
ln -s WRKWG1 CCCWRKWG1
ln -s WRKWG2 CCCWRKWG2
...etc
```

where CCC is the site's CCC.

The OB9.1 textdb works, so this is likely due to an OB9.2 code change. **(DR 20999)**

**Problem. OB9.2 DHM - Version number not being updated on the Help menu.**

While performing the regression testing of Baseline\_RFC\_DHM test case for OB9.2 release, it was noticed that the version number under the Help menu was not updated to OB9.2. It is currently shows Version: ob9.0.2. **(DR 20998)**

**Problem. GFE: Manual ISC Send not working.**

Discovered a problem with the manual ISC send while running the Baseline\_GFE\_ISC regression test. The ISC regression test was run because of OB9.2 DR 20705. Changes made in DR 20705 caused the problem in this DR.

To manually send ISC grids, turn off SEND\_ISC\_ON\_SAVE in the localConfig.py file. Make sure the Consistency -> ISC Send Enable is on. Modify grids and save. When you save the grids a message is displayed on the save dialog "Notice: ISC is now ENABLED. These grids will be 'remembered' and can be sent via ISC using the Consistency -> Send Intersite Grids dialog." Next, go to Consistency -> Send Intersite Grids... Select grids to send and press SendISCGrids.

When I press SendISCGrids I get the following error message "SEND ISC problem: Unable to send ISC grids. GFESuite is configured for automatically sending ISC when saving grids, thus the request for sending ISC from the Send ISC Dialog is being ignored." This error message should not be displayed. The automatic option on the Send Intersite Grids... dialog also produces the same error message. **(DR 20997)**

**Problem. OB9.2: GFE Coastal Flood products colors are switched incorrectly.**

It was found in GFE regression testing, once all the GFE DRs were passed, that the color table had three miss-assignments. The colors are in the right order, but the three coastal flood products listed below have swapped their color assignments. This is incorrect.

OB9 (correct)

CF.W 16 255 131

CF.Y 11 178 91

CF.S 10 220 224

OB9.2 (wrong)

CF.S 16 255 131

CF.W 11 178 91

CF.Y 10 220 224

CWL 09-OCT-09. **(DR 20995)**

**Problem. HDB: Question\_popup window truncated.**

When trying to create a PXPP input for the time series that was already exist, the confirmation pop-up (Question\_popup) window is displayed, however the pop-up window is truncated. The "No" button is cut off from the pop-up window. **(DR 20992)**

**Problem. OB9.2-OHD: MPE Editor split screen has no legend for top half.**

Since the user is probably displaying different products on the 2 halves of the screen, a legend for the top half would be useful. The product name can be deduced by putting the cursor over the PrecipFields menu and seeing which is highlighted, but the color values could be different from the legend on the bottom half. **(DR 20990)**

**Problem. BCQ-Hydro DB purge and backup\_pgdb not running.**

Problem with database appears to be linked to the problem with db\_purge not functioning properly. **(DR 20989)**

**Problem. OB9.2 HDB: System Crashes When Write to Time Series.**

While executing the Baseline\_RFC\_HDB test procedure on LX2-TBDR, the system crashes when trying to write the time series. **(DR 20988)**

**Problem. OB9.2 RFC Archive DB - An SQL Error Has Occurred for Group\_Parse program.**

While executing Baseline\_Archive\_DB test case (attached), test step #142 failed. When executed the "group\_parse" under the /rfc\_arc/data/nwsrfs directory, an SQL Error Has Occurred

(refer to screen print attached for error details). (DR 20987)

**Problem. OB9.2 AvnFPS - Incorrect file permission on ish files.**

While executing the Baseline\_AvnFPS\_HDF5\_Climate\_Data test case, it was not able to update the "ish-inventory.txt and ish-history.txt" files due to incorrect file permission. In addition, this DR is also going to change the width of the buttons on the Monitoring Rules editor for visual appearance. (DR 20984)

**Problem. Test bed security scans detected vulnerabilities Sept 2009**

Quarterly security scans were run from the NCF. Results are stored on CD. (DR 20983)

**Problem. FFMP: Multiple Upstream Traces crash FFMP Table.**

The FFMP Upstream Trace feature crashes the FFMP table. The problem was found while running the Baseline\_Radar\_FFMP test case during regression testing for DR 20972. The problem did not exist in OB9.1 and does not happen on NHDA. This DR is a minor because the table re-launches automatically. As a workaround, use the default selection (Up/Downstream Trace).

To repeat:

Launch FFMP

Select a county

Select Upstream from the Click menu

Make the FFMP kxxx Table Display layer editable

Right click on basins in the displayed county

After a click or two the FFMP table will redraw. The log shows a seg fault:

```
FFMPtableDispWish 7416 1254518083.971735 21:14:43.971 DEBUG:
addElement((0x911d5ca5, 7416, 11361))
FFMPtableDispWish 7416 1254518083.971756 21:14:43.971 DEBUG: Adding element
(0x911d5ca5, 7416, 11361) which is new.
FFMPtableDispWish 7416 1254518085.649762 21:14:45.649 DEBUG: UN-registered socket
with tcl. SD = 31
FFMPtableDispWish 7416 1254518085.649859 21:14:45.649 VERBOSE: In
FFMPtableDisp::locationSelected()
FFMPtableDispWish 7416 1254518085.666801 21:14:45.666 VERBOSE:
FFMPtableDispWish 7416 1254518085.666872 21:14:45.666 VERBOSE: Basin ids upstream
of basin index 1049208, PfafId: 3063424500000
FFMPtableDispWish 7416 1254518085.666895 21:14:45.666 DEBUG: add basin[1049733] to
list, PfafId: 3063424900000
FFMPtableDispWish 7416 1254518085.666959 21:14:45.666 DEBUG: add basin[1048924] to
list, PfafId: 3063424600000
FFMPtableDispWish 7416 1254518085.667020 21:14:45.667 BUG: Stack tracing capability not
implemented.
FFMPtableDispWish 7416 1254518085.667042 21:14:45.667 BUG: Signal 11 (Segmentation
violation) received for dirty shutdown
```

FFMPtableDispWish 7416 1254518085.667130 21:14:45.667 EVENT: FFMPtableDisp destructor called

FFMPtableDispWish 7416 1254518085.667174 21:14:45.667 VERBOSE: activeStateChanged(): FFMPtableDisp is inactive

FFMPtableDispWish 7416 1254518085.667195 21:14:45.667 EVENT: in shutdownFFMPSuite()

**(DR 20980)**

**Problem. Fog Monitor and SAFESEAS processors crash.**

The FMprocessor and SSprocessor processes are crashing.

It is not clear if this is something that does/can happen in the field or if it is new in OB9.2. This is listed as "Major" because of the nature of the problem, but if it does not happen at operational sites it could be considered less severe. In one case, it was observed that the SSprocessor crashed due to a buffer overflow. **(DR 20979)**

**Problem. GFE Smart Tools - RemoveWx tool not available.**

It was discovered that the GFE Smart Tool RemoveWx was not available, while running the Baseline\_GFE\_at\_RFC test case on TBDR.

The reason the RemoveWx tool is not available is that there is a control character at the end of the RemoveWx.Tool script. When the control character is removed the tool is available. **(DR 20975)**

**Problem. GFE: TY hazards do not get Precautionary/preparedness statements in segments.**

For the hazard-based Precautionary/Preparedness Actions section in the HLS segments, only TR, TI, HU and HI are considered. TY was left out.

If TY is added to the appropriate hazards list in Hazard\_HLS.py, then it will work. **(DR 20973)**

**Problem. TextDB errors reported when sending WarnGen products.**

TextDB errors reported after the fix for DR 20964 was installed.

(1) An error occurred while saving product WGUS56 KSTO to the database. The error message was: child process exited abnormally.

(2) An error occurred reading SFOWRKWG1. This could be either a network or database error. Sorry, no further information is available. **(DR 20972)**

**Problem. OB9.2 RFC Archive DB - The Find ID function doesn't work properly.**

While executing Baseline\_Archive\_DB test case (attached), test step #29 failed. When using the

Find ID function by entering the "KCD" in the Find ID text box and clicked on Find button, all of the stations are listed instead of the stations associates with KCD. (DR 20971)

**Problem. RFC Archive DB - Receives Memory Fault while executing arcnave program.**

While executing /rfc\_arc/bin/arcnav program of the Baseline\_Archive\_DB, test step #16 failed due to "memory fault". (DR 20970)

**Problem. GFE: HLS cannot handle hyphenated storm names.**

When testing the HLS with typhoon hazards, we used TCPPQ1 from the textdb. The Typhoon name was Choi-Wan, but the formatter would only pull in the Choi part of the name. The complete name needs to be used, so the HLS needs to be modified to handle hyphenated cyclone names. (DR 20968)

**Problem. WG: FLS dam floodgate release wording incorrect.**

In file wwa\_flood\_sta.preWWA, line 111 should say DAM FLOODGATE RELEASE. All that is needed is to insert the word DAM. (DR 20967)

**Problem. OB9.2 DHM - System Freezes when executing the "run\_ofs\_batch\_tests" auto script.**

The system freezes while executing the "run\_ofs\_batch\_tests" auto script on LX2-TBDR (S4). For more test step details, refer to the Baseline\_RFC\_DHM test procedure attached. This auto script used to work for the past releases & it's normally taken about 3-5 minutes to complete. (DR 20966)

**Problem. Add AF.W, MH.W, and MH.Y to NWRWAVES file.**

When testing the new Ashfall warning product in GFE, a Guardian message was received saying that the AF.W was not in the config file for NWRWAVES. After further investigation it was determined that the file needed to be changed was product.cfg in /awips/adapt/NWRWAVES. Besides AF.W, MH.W and MH.Y were also determined to have been missing. Considering the fact that AF.Y is in the product.cfg file, the other three ashfall products should be as well. (DR 20965)

**Problem. OB9.2: TextDB -write process crashes about once a day.**

It has been observed that the TextDB crashes regularly on NHDA, TBDW, & NMTW. The crash does not happen at regular intervals, at specific times, or due to specific products. It should be noted that the textDB has not been crashing on TBDR, though the executables are the same. Below are the last few lines of the most recent failure (NMTW OB9.2s4a installed 09/17/09).

```
dx1-nmtw{wleveren}4: tail TextDB_Server11099dx1-nmtw145731
15:20:17.219 TextDB_Server.C EVENT: SATMTRAQO SAUS70 171400 80 0.047 :dx3-
nmtw/49837/27660
15:20:17.243 TextDB_Server.C EVENT: SATMTRARM SAUS70 171400 97 0.024 :dx3-
```

nmtw/49837/27660

15:20:17.267 TextDB\_Server.C EVENT: LBBMTRBBD SAUS70 171400 76 0.024 :dx3-nmtw/49837/27660

15:20:17.289 TextDB\_Server.C EVENT: SATMTRBEA SAUS70 171400 97 0.022 :dx3-nmtw/49837/27660

15:20:17.303 TextDB\_Server.C EVENT: LBBMTRBPC SAUS70 171400 80 0.013 :dx3-nmtw/49837/27660

15:20:17.320 TextDB\_Server.C EVENT: SATMTRDZB SAUS70 171400 100 0.016 :dx3-nmtw/49837/27660

15:20:17.350 TextDB\_Server.C EVENT: CAEMTRGYH SAUS70 171400 72 0.030 :dx3-nmtw/49837/27660

15:20:17.376 TextDB\_Server.C EVENT: FTWMTRGYI SAUS70 171400 88 0.026 :dx3-nmtw/49837/27660

15:20:17.377 SignalClient.C BUG: Stack tracing capability not implemented.

15:20:17.377 SignalClient.C BUG: Signal 11 (Segmentation violation) received for dirty shutdown. **(DR 20964)**

**Problem. OB9.2 HDB: Receives "Memory Fault" while executing "runhdb" script.**

While executing the "runhdb" script, step 1 of the Baseline\_RFC\_HDB test procedure attached on LX2-TBDR (S4). The "memory fault" message is displayed & as a result no main GUI is displayed on the screen. **(DR 20963)**

**Problem. OB9.2 AvnFPS - QC Checks not being updated in info.cfg file.**

While conducted the regression test of QC Checks feature (AvnFPS), it was noticed that this feature does not work properly. When changes the QC Checks value is made by toggle OFF the Impact and Climate radio buttons via "TAF Site Info Editor" GUI for the first site (KBOS) and then verified the TAF Editor GUI and "info.cfg" file the changes updated and reflected as expected. However, when the changes are made (this time toggle OFF only the current wx) for the second site (KBAF) the change does not update/reflect the TAF Editor GUI and "info.cfg".

It was verified with the developer and he was able to replicate the same issue in the DEV platform.

**Workaround:** User still able to change the QC Checks for multiple sites by closing and reopening the "TAF Site Info Editor" & Set Up GUI after each site has been saved. **(DR 20961)**

**Problem. OHD OB9.2: MPE not saving date/time correctly in XMRG Reported by NERFC (TAR) and confirmed at OHD.**

When MPE saves a 1 hour QPE file, it does so in XMRG format. If the site wishes, this file can also be saved in GRIB1 format and then sent out to the SBN. When the XMRG file is transformed into GRIB, the date/time is read from the XMRG file and used as part of the WMO header preceding the GRIB message. NERFC was testing the 9.2 code and found after sending

the GRIB files to NPVU that there were incorrect date/times on the WMO header. NPVU was unable to use the GRIB file due to this. NERFC reverted back to an older version of MPE and it worked. **(DR 20958)**

**Problem. AWIPS\_Commons and WFOA OB9.2 code changes needed to address FORTRAN compiler flag.**

This DR will be used to check-in a new Makefile.commonConfig with the '-tp p7' PGI Fortran flag. **(DR 20956)**

**Problem. Install: GFE install script needs to account for removed files.**

On the occasion that a file is removed from the GFE baseline, the GFE install script needs to be modified to remove those files off of the AWIPS platform as well. Currently, the install script only updates the files already residing on the system. This leaves any files which should be no longer present.

In particular with OB9.2, the Hazard\_HLS\_MultiPil.py and Hazard\_HLS\_MultiPil\_Local.py remained in /awips/GFESuite/primary/data/textInstall/TextProduct\_BASE after the installation. This causes the new HLS formatter to not function.

There should be only one HLS in the above directory which is Hazard\_HLS.py. **(DR 20948)**

**Problem. ShefDecoder not running or starting.**

While testing DR20813 on TBDW it was found that the database has not been updating since August 21st 2009. After further investigation, it was noticed that the shef decoder was not running, and thought this may have caused my issues. The date which the decoder stopped working was the same day the install took place on TBDW (8/21/09).

ENV - Attempted to start shefdecoder manually, but it immediately exits with a "Memory Fault". **(DR 20945)**

**Problem. OB9.1: amirunning no longer works in RH5.**

In RH5, the behavior of the ksh shell has changed, which renders the amirunning script unusable.

In RH4, when a script launched an executable both the script and executable will remain in the process list until the executable is done executing.

In RH5, once the executable is launched, the script no longer appears in the process list (ps). Since amirunning runs inside the script and checks for the existence of another instance of the script running before launching the executable, it no longer works in RH5. Since previous instances of the script won't be in the process list, and it will always launch another executable.

There are three options for fixing this. All require changing the hydro scripts which use amirunning. Option 3 is used as a workaround.

**Option 3: Add an exit statement after the executable launch. This will keep the script running because it has "more to do" after the executable completes. In the example below, xclock is the executable.**

```
#!/bin/ksh

#test.sh

. amirunning

xclock

exit
```

**(DR 20944)**

**Problem. OB9.2: WarnGen crash right after being loaded.**

It was found that WarnGen crashed right after it was loaded by clicking the "WarnGen" button on D2D menu bar. WarnGen GUI was not up.

Preliminary investigation shows that if file devEnvTestMode.txt exists in the home directory of the user and if TEST or PRACTICE is on the first line of the mentioned file, warnGenWish will not crash. However, if OPERATIONAL or PANIC is on the first line, it will crash. **(DR 20943)**

**Problem. Compiler complaint for AWIPS Makefile.commonConfig.**

While compiling AWIPS applications on OB9.2, the compiler complains as "-mcpu=' is deprecated. Use '-mtune=' or '-march='". Obviously, there is no negative impact on the success of compiling applications. The Makefile.commonConfig needs to replace "-mcpu=" by "-mtune=" to clear the complaint. **(DR 20940)**

**Problem. GFE Autotest failures for OB9.2.**

**Note:** This was separated out from DR 20908, also concerning GFE autotests, because it addresses different issues. DR 20908 will address the random test failures we have seen at times due to design/memory problems. This DR, 20939, is to correct the test cases that are specifically failing in OB9.2 for real reasons that need to be corrected. **(DR 20939)**

**Problem. Changes needed to successfully compile OHD-OB9.2 workset.**

Changes need to be made to multiple files in order to successfully compile OHD-OB9.2. **(DR 20934)**

**Problem. OB9.2 - Installation Scripts.**

This DR will be used to track additions/changes/deletions to installation scripts and any other files that will be part of the OB9.2 install workset. (DR 20926)

**Problem. OB9.1: CollDB decoder logs show seg fault crash.**

The NCF and sites have been noticing that certain text observations are not being ingested and that the CollDB decoder logs show a seg fault and then stop logging, and it also seems that it stops ingesting as well. When found, the NCF has been bouncing the CollDB decoder and ingest will resume, but the crashing should be investigated and fixed. (DR 20922)

**Problem. OB9.2: coding error may causes WarnGen crash under RHEL5.**

David Friedman found that coding error in WarnGen.C causes WarnGen crash if it is compiled under Red Hat 5. The references to elements of a char array, line[1] and line[2], should be line[0] and line[1] in the if block several lines below line \_algorithmStart=0. Assigning a value to Line[2] causes overwrite of a chunk of memory. That may cause WarnGen crash.

The error was brought in by OB8.3.2 DR\_20343. (DR 20914)

**Problem. WG: OB9.2: Polygon in follow-up products cannot be edited (ref OB9.1 DR 20912).**

From the TT:

When doing a follow up to warning products, they are unable to move the polygons. Once it is created originally, the vertex cannot be moved to update the polygon. However, counties are able to be removed from the polygon area. For example, if a polygon covers two counties, one of those two can be removed and it will update with the changes.

Whether or not a site is affected by this problem seems to depend on the localization.

This problem is caused by a coding error introduced in OB8.1 (see Corrective Action below). It may have only surfaced in OB9.1 due to changes in the C library memory allocator.

Workarounds:

1. Select the "UPDATE LIST" option from the follow-up menu. The polygon will be editable after doing this.
2. Use a high-resolution gelts: Set the TDIM parameter in a customized wwaConfig.txt to 1200 and run a forced -wwa localization.

Because the problem depends on where blocks of memory are allocated, the workarounds may not be 100% effective. (DR 20913)

**Problem. OB9.1: startLDAD.csh fails to start due to grep error.**

The startLDAD.csh script will not run due to a logic error at the beginning of the script that

checks if the site has an LDAD box. This script runs fine as part of heartbeat, but running it from the command line will cause this problem.

To fix, change

```
ypcat hosts | grep -q ls1-${SITE_NAME}
```

to

```
ypcat hosts | grep ls1-${SITE_NAME} > /dev/null
```

Should actually test this at a site that does not have an ls1, to verify that it will exit script if nothing returned. This changes works for ARX. **(DR 20909)**

### **Problem. AWIPS applications still link to Mozilla & not Firefox (LAPS).**

Applications point to Mozilla & not Firefox. Mozilla was replaced by Firefox in OB9.1 (RHEL 5.2).

LAPS:

The Help menu for Laps Tool does not work, see below for the action that I performed:

- Launch D2D, select State scale
- Under the Tool menu, select Laps Tool
- Select Help menu and select User's Guide - The error message "Cannot start mozilla process" is displayed. **(DR 20901)**

### **Problem. AWIPS applications still link to Mozilla & not Firefox (D2D, TextWS)**

Applications point to Mozilla & not Firefox. Mozilla was replaced by Firefox in OB9.1 (RHEL 5.2).

D2D:

Volume Browser Help Menu: On Volume Browser and Contents selections, and D2D Text

Window Help Menu: On Text Window selection, try to execute Mozilla instead of Firefox.

Text Workstation:

TextWS (Text Window, ie "Text 1") Menu item : "Help" >> "On Text Window" ... Error: "Cannot Start Mozilla process."

(Additional applications -- David F.:)

RMR: The "Help" button at the bottom

LDAD Scheduler: The "Help" button at the bottom

FAX: In TextWS, File -> Configure Auto Fax. Then Help -> Contents  
**(DR 20900)**

**Problem. AWIPS applications still link to Mozilla & not Firefox (IFPS).**

Applications point to Mozilla & not Firefox. Mozilla was replaced by Firefox in OB9.1 (RHEL 5.2).

**IFPS:**

Unable to use help button from the IFPS gui. The old "Help" button on the IFPS gui use to link to mozilla and after the Red Hat was upgraded the "Help" button was link to Firefox.

Here is the error message:

"Error: couldn't execute '/usr/bin/mozilla': no such file or directory"

**(DR 20899)**

**Problem. OB9.0.1.1: Incorrect wmo head time is stored in WRK products.**

After the site had the patch for OB9.0.1.1, the work product created by WarnGen was saved in text database with incorrect WMO head time. The problem was also reported at RLX site and it impacted on decoding NRRWAVES products (TT365754). The RLX site has a workaround.

**(DR 20877)**

**Problem. Test bed security scans detected vulnerabilities: June 2009.**

Quarterly security scans were run from the NCF. Results are stored on CD. **(DR 20873)**

**Problem. OB9.1: VerifySshKeys fails in RH5 with socket errors.**

VerifySshKeys will start failing about halfway through with "rcmd socket all ports in use" errors. This script uses rcommands, and those rcommands open up a socket in the 0 to 1023 range. When the connection is closed, it goes into a TIME\_WAIT for 2 minutes before closing. The script seems to be running faster in RH5 therefore enough time is not elapsing from the earlier r connections to free up the socket from TIME\_WAIT. The easiest option might be to put in sleep commands at strategic locations in the script. **(DR 20860)**

**Problem. OB9.1 - AF: Rebuild AWIPS MIB for net-snmp-5.3.1-24.el5.**

Whenever the version of net-snmp is changed, it must be rebuilt from source with files customized for AWIPS. This is only used on the site CPSBNs for Trend reporting. **(DR 20855)**

**Problem. OB9.1 - RFC Archive DB (AX): Unable to locate "find\_bigfiles" file.**

While testing Baseline\_RFC\_Archive\_Database test procedure, step 113 is failed due to the "usr/X11R6/bin/ncedit" location has been changed therefore, the "find\_bigfiles" script needs to be pointed to the correct path. **(DR 20851)**

**Problem. Change to MPE editor in AppLauncher.**

A change needs to be made to hydro.conf. (DR 20849)

**Problem. OB9.1: Change mount options and nas reference in weekly backup.**

The r/w size of the nas mounts in RH5 to 8k will be changed. The nas\_weekly\_backup script contains specific mount commands for the nas volumes. Since the defaults would use 32k, the mount commands need to be modified to use the 8k setting. Also, the nas2 IP will be disabled in the field, so nas1 will be hard coded in the mount command. (DR 20844)

**Problem OB9.1: OHD- No Freezing Level data, write\_file cmd not found.**

In RHEL 5, the write\_file cmd is now in a different library that needs to be sourced. Thus ruc.tcl fails to create the files needed to QC the Freezing Levels. (DR 20839)

**Problem. OB9.1: Change X11 paths in .Apps\_defaults.**

Two paths need to change in .Apps\_defaults for certain hydroapps software to work correctly. The damcatalog editor needs to change to /usr/bin/gvim, and the rgb text file path needs to change to /usr/share/X11/rgb.txt. (DR 20835)

**Problem. OB9.1: Dam Crest editor will not launch.**

There is an option to view output in the Dam Crest application. Investigation revealed that it was launching the gvim editor. However, a setting in /awips/hydroapps/whfs/data/local/app/damcrest/.vimrc was preventing gvim from launching without pressing any key to continue, therefore the application is "stuck" at that point. The culprit is a !set setting in the file above and needs to be dealt with for the editor to launch. (DR 20830)

**Problem. OB9.1 HDB: System Crashes When Create Time Series for a Station.**

During the testing of Baseline\_RFC\_HDB on LX2-TDBR, system crashes (GUI disappears) when tried to write time series for any station. (DR 20822) [Assigned to next release]

**Problem. OB9: ICP run fails OB9: ICP run fails.**

Ed Clark from CBRFC called after he had finished the OB9 install and they are now having problems running ICP (Interactive Calibration Program). This program runs through the decks. It was running fine till yesterday. It sounds like the decks are having problems running dates after 1997 [Ed mentioned 2004-2009 specifically].

Here are the two errors:

Window brought up by icp (java):

Running MCP3 failed

Unknown error, check the file \$(mcp3\_icp\_iface)/stop\_num.txt

```
mcp3_icp_iface:/tmp/oper/mcp3_ntrfc
```

Return message on the prompt:

```
MCP3 (stdout): run_mcp3: line 3: 17341 Segmentation fault ./mcp3 $2 $3 2>$4
```

```
*** MCP3DeckImp:run(=> 1558 ms process exit value = 139
```

Additional Information:

Some decks run successfully, but any deck with end-date or start-date after ~1996/1997. **(DR 20821)**

**Problem. OB9: ESPADP segmentation fault errors OB9: ESPADP segmentation fault errors.**

John Lhotak at CBRFC called that he was unable to get the ESPADP batch to function as he wanted it to. When he was trying to use the addition of BIAS to the batch mode, he was receiving segmentation fault errors and program ESPADP fails. He said that he thought the bias mode would be available after the new build.

He did some more investigating later and found that the bias adjustment crashes when the Historical Observed data does not cover the entire Conditional Simulation period. The crash happens when trying to create a table but not a plot. The crash happens in both batch mode and using the GUI interface. **(DR 20820)**

**Problem. OB9.1: Change perl module location in hg.cfg Perl changed from 5.8.5 to 5.8.8 in OB9.1.**

We've changed the location of the AWIPS COTS add-ons. As a result, the hg.cfg hard codes the location as 5.8.5 for the modules, and this needs to change to 5.8.8. **(DR 20813)**

**Problem. OB9: IFP Snow Display doesn't work correct.**

Brian in NCRFC tried to use the IFP Snow Display and he found that:  
The data shown in this plot is actually daily data starting on 3/7, but according to the x-axis it is being plotted as 6-hr data.

They found two problems:

1. In the "runsnow" script in /awips/hydroapps/lx/rfc/nwsrfs/ifp/scripts there is /awips/hydroapps/lx/rfc/nwsrfs/util/bin/RELEASE/ChartDirector.jar to the Java classpath, but that jar file did not exist. A file by that name does exist in /awips/hydroapps/lx/rfc/verify/bin/RELEASE, so they created a symbolic link to it.
2. Another file in the runsnow classpath, /awips/hydroapps/lx/rfc/nwsrfs/util/bin/RELEASE/rfc.ohd.jar was updated when they had OB9 installed on March 17th. If he replaced that jar file with one from before OB9, then the application worked.

[They are using the OB8.3.2 version of IFP right now because of TT# 357674. he thought that maybe their problem was due to a disconnect between the old version of IFP and the new version of the Java Snow Display. However, when he restored the OB9 version of IFP with the OB9 version of the Java Display, he still had the same problem.] (DR 20811)

**Problem. OHD-OB9.1 code changes needed to address OS and compiler upgrade.**

This DR will be used to check-in all code changes needed to cleanly compile the OHD-OB9.1-CM workset. (DR 20809)

**Problem. FSI TDWR Velocity data incorrectly decoded.**

The TDWR Velocity data is incorrectly being decoded and stored to netCDF and as a result the mapping of velocity data in FSI is wrong. Take a look at the following cases that LWX captured and you can clearly see the difference between what is displayed in D-2D and FSI. A code change is required to fix the issue and a new FSIProcessor will need to be build and delivered. (DR 20807)

**Problem. OFSshef generates missing values for future times.**

For the future data, the OFSshef program generates all missing values (-9999.9) for each location after the first one in the input file. The first run time is fine, but all future data seems to be missing. (DR 20801)

**Problem. ESPADP has problem in regard to the YearWeight specification.**

ESPADP has problem in regard to the YearWeight specification

Brian from NCRFC found a problem when he was running ESPADP in batch mode to generate a tabular product in OB8.3. The problem he is having is in regards to the YearWeight specification. Whether he comments it out or not in the input file, the results are the same, and they should be noticeably different. (DR 20799)

**Problem. OB9: Data Transfer from the RFC to WFOs is not working.**

Both TIR (OHRFC) and ALR (SERFC) reported the data transfer (run /awips/hydroapps/whfs/bin/run\_SSHP\_data\_transfer) from the RFC to WFOs is not working with OB9 upgrade. Investigations indicated questionable executable sshp\_ofs\_extract.LX is the problem and it is probably caused by the newly introduced FORTRAN compiler in OB9.0. **(DR 20796)**

**Problem. AVNFPS-OB9.1 code changes needed to address OS and compiler upgrade.**

This DR will be used to check-in all code changes needed to cleanly compile the AVNFPS-OB9.1-CM workset. **(DR 20793)**

**Problem. OB9.1: Hydroview needs to be launched from an xterm.**

Hydroview makes a call to getlogin, which will only work if the application has been launched from a terminal screen (it uses tty settings to determine user info). Because of problems launching the hydroview exec from the startup script, the exec will be launched directly from the start script. To fix this issue, the appLauncher should launch the start\_hydroview script using an xterm. Same is true of the launch of this app from D-2D. **(DR 20791)**

**Problem. OB9.1: Several hydro apps won't launch.**

Hydroview, Riverpro and MPE Editor will no longer launch from the appLauncher. This is due to environment settings being lost when xterm is launched. The solution is to have all three scripts not launch an xterm, and launch the executables directly from the startup script. To preserve the output, stdout and stderr will be redirected to log files. **(DR 20790)**

**Problem. xhost fix to restart-ingest-display.tcl.**

Due to relocation of /usr/X11R6/bin/xhost to /usr/bin in RHEL5, the script /awips/fxa/bin/restart-ingest-display.tcl needs to be fixed. **(DR 20783)**

**Problem. ADAPTOB9.1 code changes needed to address OS and compiler upgrade.**

This DR will be used to check-in all code changes needed to cleanly compile the ADPATOB9.1-CM workset. **(DR 20775)**

**Problem. NCF-COMMS-OB9.1 code changes needed to address OS and compiler upgrade.**

This DR will be used to check-in all code changes needed to cleanly compile the NCF-COMMS-OB9.1-CM work set. **(DR 20774)**

**Problem. OB9.1: Add dgnc device chmod to heartbeat script.**

A new dgnc driver was needed for RHEL5u2. Starting in RH5, udev has been implemented for device creation. However, the dgnc devices are created via script delivered with the rpm, and created when the dgnc drivers are installed. The /dev/tty1\* devices are being created with 660 permissions as root, which do not allow user fxa processes, like asyncScheduler, access to them. A poor workaround would be to add a chmod to the px1apps heartbeat scripts. This will make sure the permissions are right before starting the asyncScheduler. However, if anyone manually restarts the dgnc service, the permissions on the device would be reset, and wouldn't be fixed until px1apps is restart. **(DR 20766)**

**Problem. TextWS: MND time can be set to one hour in the future or the past.**

If a follow-up warning product is created in WarnGen and sent within the last 30 seconds of an hour, the MND time will be set to one hour in the future.

The sequence of events that cause this is

- 1) WarnGen will rounds up the current time to the next minute to form the MND time. For example, at 6:59:37 PM, the MND will be 700 PM
- 2) After the user clicks "Send", Text Workstation will attempt to synchronized the MND time to the WMO header time. It only updates the minute, however. For example, 700 PM will be changed to 759 PM.

The problem has been reproduced using 8.3.2 code.

Workaround: To avoid both creating and sending a product in the last 30 seconds of an hour.

Update 2009-03-27 (David F.): The time can also be set one hour back if the scratch product has an MND time of 59 minute past the hour and the product is sent in the next hour. **(DR 20763)**

**Problem. OFS regression script output Fcst errors.**

The OFS regression script outputted the following errors (error code 8) on TBDR (OB9). These errors are thought to be associated with the new compiler that went out with OB9.

Fcst:

qp33112z  
pp33112z  
co33112z  
px33112z  
cg33112z  
qp40112z  
px40112z  
cg40112z

co40112z  
qp40200z  
px40200z  
cg40200z  
cg40200z2  
qp40212z  
px40212z  
cg40212z  
co40212z  
cg40212z2  
esp\_FSMSW  
esp\_EMYSW  
esp\_GDWSW  
esp\_HATSW . (DR 20762)

**Problem. OFS Regression script output Fcinit Errors.**

The OFS regression script outputted the following errors (Error code 8) on TBDR (OB9). These errors are thought to be associated with the new compiler that went out with OB9.

Fcinit:  
segglmsw  
seghatsw  
fgdefsw  
cgdeftx1  
cgdeftx2  
defrcftw  
segfsmsx  
seggdwsx . (DR 20761)

**Problem. OB9.1: NAS backup scripts do not work.**

In RHEL 5 the way that the tape drive is read as attached is different from that of the older version. Because of this the nas backup script does not think there is a tape drive attached and no weekly backup is run. (DR 20756)

**Problem. OB9.1: Chat server option in AppLauncher.**

In the AppLauncher (AWIPS start-up menu) the chat server references Mozilla and not Firefox. This prevents the Chat server client from loading. (DR 20755)

**Problem. OB9.1: Update to Guardian auto start script.**

Guardian auto start script needs to be changed to set the display monitor as opposed to its current method of assigning where to load. (DR 20753)

**Problem. OB9.1: TextDB -Read and mexwxmonitor.**

glibc error double free or corruption error when trying to use the Text DB -Read process. This error also effect mexwxmonitor but this process was disabled but was never taken fully off the system. (Also refer to DR 19989 and 18303). (DR 20752)

**Problem. OB8.3:ESP program won't run OB8.3:ESP program won't run.**

Gina from LMRFC noted that when she runs the programs FCST and it bombs. It creates error text message that is a gigabyte in size. She runs a batch file script and it bombs out too.

In the error message file she got an illegal TS in the PESP array for segment WBHL1, but ESP graphics are produced and "look" normal. All sites downstream of WBHL1 are not processed. Looking at the error file a different way shows null fields/spurious characters. And then after that, there seems to be an infinite loop of analysis period years.

These ESP segment definitions are necessary for their AHPS requirements. Their FY09 goals include adding 34 more segments, including WBHL1, and about 60 segments for FY10. Without these ESP segment definitions, we will be unable to produce the probabilistic forecasts required by AHPS. (DR 20750)

**Problem. WFOAOB9.1 code changes needed to address OS and compiler upgrade**

This DR will be used to check-in all code changes needed to cleanly compile the OB9.1-CM work set. (DR 20741)

**Problem. OB9.1: Implement NIC bonding in Install heartbeat config.**

Starting with the RP hardware upgrade occurring during OB9.1, servers will be implementing NIC bonding for better network performance. This will change the way heartbeat needs to be configured in order to work correctly. This DR addresses changing the underlying process in /awips/ops/bin/Install to correctly determine if the servers NICs are bonded, and configure heartbeat correctly if it is. (DR 20701)

**Problem. OB9.1: RHEL5u2 OS installation.**

DR for OB9.1 RHEL5u2 OS installation scripts and configuration files. (DR 20700)

### **Section 3: Additional notes**

**Note 1:** After OB9.1 changing the password using "ypasswd" will work, however it will truncate the password to 8 characters. Instead, sites should use "passwd" which also works fine, and is properly encrypted to save the full password.