AWIPS OB8.2: Beta Draft Release Notes

Section III – Current Problems to be Fixed in a Future Release

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1.0 RELEASE OB8.2

Currently no open DR's.

2.0 RELEASE OB8.1

Problem. Increase size of /data partition on site Comms Processors.

Increase the size of the /data partition. There are many GB of unallocated space available on the new CPs. An additional 10-15 GB should be sufficient for /data. **(DR 19712)**

Problem. HydroGen doesn't retrieve flow-based crest values.

The HydroGen application generates an XML-formatted file which includes a list of historical crests for various locations. However, if the crests are defined in terms of discharge, with no associated flow value, then the crest values are not retrieved and included in the XML file. For locations which are defined as discharge locations, HydroGen shall retrieve and prioritize historical crest information based on the flow values defined in the crest table. **(DR 19708)**

Problem. HydroGen not using Shifted Rating Curve.

In the hydro database, the user can define a shift to be applied to the defined, base rating curve. The actual rating curve is then a combination of the base rating curve and the shift. The HydroGen application uses the rating curve to derive discharge values from observed/forecast stages, or derive stage values from observed/forecast discharges. However, if a site has defined an active shift to be applied to the rating curve, HydroGen is not applying the shift to the rating curve before deriving the stage/discharge values. **(DR 19707)**

Problem. HydroGen doesn't handle discharge locations properly.

For locations which report observed/forecast discharge, the HydroGen application does not properly handle the retrieval and display of flood categories, nor does it properly derive stage values based on a rating curve.

1. HydroGen currently derives flood category information for flow-based locations from a rating curve, even if flow-based flood categories are already defined in the database. HydroGen should retrieve all flood categories from the floodcat table in the hydro database, using stage-based categories for stage locations, and flow-based categories for discharge locations. If the appropriate categories are undefined, HydroGen should report them as undefined.

2. When generating the XML-formatted file, if a rating curve exists, HydroGen will derive stage values from the observed/forecast discharge information and the rating curve. However, the derived stage values are being rounded to the nearest foot. They should be rounded to the nearest tenth of a foot. **(DR 19706)**

Problem. GFS161 grid headers should be removed from CONUS acq_patterns.template.

The GFS161 grid, covering Puerto Rico, has its WMO headers in the CONUS version of acq_patterns.template. Therefore all CONUS sites are ingesting these grids, and then they are thrown out by the Grib2Decoder. This creates unnecessary processing and many 'FAIL' entries in the decoder log. These grids should not be making it to the decoder at CONUS sites. The general representation of the WMO headers that should not be valid in acq_patterns.template is: [LM][A-Z]T[A-Z][0-9][0-9]KWBC **(DR 19705)**

Problem. New ls2/ls3 ldad sendIPCmessage error in CO_serv.

The problem appears in the CO_serv log in the form of an error when "V data" has arrived:

co_serv_main.c EVENT: V message Received by CO_serv.....
sendIPCmessage.c Problem: sendIPCmessage: connect FAILED: Connection reset by peer.

However the listener process is notified of the event, and successfully transfers the data over for processing. Also, there are no error messages logged on the px2/px1 servers.

The problem only seems to occur when "V message" is received.

The impact seems low as the data still is processed.
There are no known workaround. **(DR 19699)**

Problem. xinetd errors on px2 / ls2 / ls3.

During communications between the ls2/ls3 and px2 during normal mode-b operations, the messages log on ls2 report the following error:

xinetd[12345]: read: Connection reset by peer (errno = 104)

The px2 has a corresponding error message:

xinetd[54321]: libwrap refused connection to auth (libwrap=in.authd) from 192.168.1.10

The impact of the problem seems minimal, as products seemingly flowed without problem from px2 <--> ls2/ls3. However, further testing is most likely needed.

The workaround is to add the following into the /etc/hosts.allow file on px1/px2

in.authd: 192.168.1. **(DR 19698)**

Problem. INSTALL: Sendmail queue build up dx3, dx4, and px2 (et al) are queuing up outbound SMTP messages.

This problem is occurring because sendmail is not enabled. To be clear, this issue has nothing to do with MHS since MHS relies on sendmail on dx1/2 only, which is configured properly for each release.

Linux depends on an SMTP agent to be running all the time to be able to handle cron job status reports for their respective client users. However, simply activating sendmail won't completely resolve the issue since all this will do is process these messages and put them in the users' mailboxes, which will likely go unread forever (or until the /var partition fills up, which would take over 200 years at the current rate), so something more comprehensive probably should be devised. If nobody checks their mailboxes for cron job status reports (does anyone ever actually do this?) on these machines, the best solution might be a simple cron job to delete everything in /var/spool/clientmqueue once a month on all machines except for dx1/2. If this approach were taken, we would need to make sure that this cron job gets deleted whenever a dx3/4 machine is receives an identity change to become dx1/2, however, or else MHS messages would mysteriously disappear ever now and then. This issue does not in any way affect the forecasters or AWIPS operations; it is simply a nuisance for those keeping track of disk usage. **(DR 19687)**

Problem. NWRWAVES: Setup GUI will not accept a marine based local LAC. (DR 19679)

NWRWAVES Setup GUI will not accept a marine based local LAC because it requires a two state letter ID instead of the word MARINE as required per the help documentation. Secondly, when the help (?) button associated with LACs is clicked and closed, the user receives an error "can't read "b": no such variable" the next time they open the "Edit Local LACs" button.

NWRWAVES Setup GUI will not accept a marine based local LAC because it requires a two state letter ID instead of the word MARINE as required per the help documentation.

Problem. Topography Image in Hydroview blocks precip grids. (DR 19654)

Within the HydroView application, one of the map overlays is a topography image. This image is an opaque layer which lies "below" most of the other information which the user can plot on the HydroView map. One of the pieces of information which the user can plot on HydroView is a gridded precipitation image of the MPE Best Estimate QPE, generated by the MPE application. However, if the user attempts to display the MPE Best Estimate while the topography image is also being displayed, the topography image appears to lie "on top of" the Best Estimate QPE grid, and the user cannot see the MPE BEst Estimate grid.

Problem. Issues in D2D with display of LSR data (Ref.DR19591) (DR 19652)

Next is the more critical incorrect time and partial/combined remarks when sampling the "Local" and "Region" reports. I'm attaching a screen shot, "d2d_lsr_office_20071019_0325Z.png" that is supposed to be the same report displayed in the first capture. You can see that it is plotted in a different location, and the time shows as 1457. The original LSR (attached as "clelsriln_20071019_0325Z.txt") contained a report from both 10/19 0357Z and 10/19 0325Z.

D2D appears to use some version of the time from the first report in the product, as well as the lat/lon placement. I tried to find a plot of just the 0325Z report from the "Local" menu option, and could not. Selections from the "Region" menu showed the same results. You can also see in the screen shot that the two individual reports in the text product seem to be combined when sampling. The word "ROAD" is included from the 10/19 0357Z report, but the rest of the text is from the 10/19 0325Z report that I actually want.

Problem. CNRFC FFG image skewed to the West. (DR 19651)

The CNRFC FFG image is skewed to the West.

Problem. No PX4 scour cron means. (DR 19650)

Log files accumulate at Alaska sites.

Problem. D2D: Edit Colors tool does not adjust units. (DR 19649)

The "Edit Colors" tool in D2D displays the wrong units (ex. displays Degrees F when the image is pressure and should be in mb).

To create the problem:

1- Load Surface Pressure and Surface Temperature (Any Source) from the Volume Browser
2- Right-click temperature product and load as image.
3- Right-Click and click Edit Colors (scale is correctly in Degrees F)
4- Unload Temp. Image
5- Load Pressure as an image
6- Edit colors of pressure image (scale is still in Degrees F but should be in mb for pressure)

No known workaround. Products outside the volume browser (Sat,Radar,etc) work as expected. Seems the only way to 'reset' the scale in the edit colors window is to load a product from outside the volume browser or to restart D2D completely. N/A OB8.1

Problem. Issues in D2D with display of LSR data. (DR 19641)

This is the problem from DR 19591. That DR was split up into a problem (this DR) and a small enhancement.

The following is a summary from Todd Shobe at ILN:

There are incorrect time and partial/combined remarks when sampling the "Local" and "Region" reports. I'm attaching a screen shot, "d2d_lsr_office_20071019_0325Z.png" that is supposed to be the same report displayed in the first capture. You can see that it is plotted in a different location, and the time shows as 1457. The original LSR (attached as "clelsriln_20071019_0325Z.txt") contained a report from both 10/19 0357Z and 10/19 0325Z. D2D appears to use some version of the time from the first report in the product, as well as the lat/lon placement. I tried to find a plot of just the 0325Z report from the "Local" menu option, and could not. Selections from the "Region" menu showed the same results. You can also see in the screen shot that the two individual reports in the text product seem to be combined when

sampling. The word "ROAD" is included from the 10/19 0357Z report, but the rest of the text is from the 10/19 0325Z report that I actually want.

Problem. NWRWAVES: The summary message erroneously is sent to CRS. (DR 19615)

Test warning products correctly contain test language and correctly get held in the browser. However, if enough versions of the test warning are generated to trigger the generation of a summary message, the summary message erroneously is sent to CRS.

This DR is a duplicate of DR 18743 (OB7.2). On 10/4/07, Steve Wallgren reported that he encountered the same problem and learned what the proposed OB8.2 solution. But he rejected the solution of just set the summary threshold to a high enough values that testing won't trigger it. He opened NCF ticket #308021 to reuest the issue be escalated to a DR. In addition, we beleive that the DR should include an additional case of test mode (input argument as testing) other than test code (message contains "Testing").

Problem. NWRWAVES: Need monthly test for transmitters service area across the whole state. (DR 19614)

WFO CAR staffs were performing their CRS required monthly test (RMT) which Mark Reschke has automated a way by causing a pre-configured file thru NWRWaves to CRS when the forecasters select a specific AWIPS destop menu item. In this file, they use the UGC code MEC000, which is SAME and FCC EAS shorthand for "all the counties in Maine."

This message is supposed to flow thru NWRWaves and play on all CAR's transmitters but most importantly on the Ellsworth transmitter. The Ellsworth transmitter is the one that is monitored by the EAS equipment of Maine Public Radio, which is the state's primary EAS broadcaster. They are at the head of the state's FCC EAS hierarchy.

Unfortunately, NWRWaves translated MEC000 to the much smaller subset of non-000 county codes registered in the NWRwaves configuration file transmitter_cfg.CAR for the Ellsworth transmitter. This does not make CAR's EAS community happy, because the monthly test only works in the few counties in the Ellsworth transmitters service area, not across the whole state.

CAR WFO needs the MEC000 UGC code to pass thru NWRWaves unhindered, unfiltered and untranslated and this problem is assumed happening at other WFOs in other states.

This is also going to have the same problem when HazCollect stops using Cafe and switches to NWRWaves. HazCollect uses the 000 state-side UGC codes extensively.

Problem. Update climate data ingest script from informix to postgres. (DR 19612)

There is a several-hundred line script from 2003 that is not part of AWIPS that gets normal and extreme climate data from NCDC and puts it in the AWIPS climate database for new climate sites. I am attaching it to this DR. It was not cehcked into Dimensions.

That script was written for informix and does not work since the switch to postgres.
Both Pittsburgh and San Juan have opened trouble tickets requesting assistance populating NCDC climate data into AWIPS, something that would be done by this script. Although the

script is not part of AWIPS, this is something that needs to be done occasionally, and so I'm opening a DR to write a new script or rewrite the old script.
Until the script is written/rewritten, any site that adds new climate stations to AWIPS will not be able to populate any normal or record data.

Problem. hmMonintorServer does not consistenly notify active clients. (DR 19607)

The hmMonitorServer fails to notify the next active client in the list state when it fails in sending an IPC to an inactive client (or one which was not removed properly from the client list state -- see DR 19606).

For example, if the client list looked like the following:

xt3-oun/38779/19578
xt6-oun/38057/8639
xt1-oun/37703/8902
xt3-oun/40599/10376

And the first entry (xt3-oun/38779/19578) did not actually exist, then xt6-oun/38057/8639 would not receive the next notification from the hmMonitorServer.

This happens to the next client in the list state no matter where in the list the bad client exists.

Potential impact is for workstations which need notifications from the hmMonitorServer to not receive these messages. These notifications include climate runs and hourly weather roundup. If only one client is actually open, and it sits behind an inactive client then there will be no notification for the next event which hmMonitorServer handles.

Problem. hmMonitor.tcl doesn't exit correctly through X wigit. (DR 19606)

The hmMonitor.tcl script, when exited using the "X" in the upper right hand corner as opposed to using file-->exit, does not remove itself from the client list state in the hmMonitorServer (and hmMonitorClientListState.txt file in /data/fxa/workFiles).

The impact is that it causes the hmMonitorServer to not notify the client which is behind the inactive client (Ref DR # 19607) the next time it attempts to notify clients of an event.

Matt Foster / OUN helped identify that on line 651 in the tcl script, the following line

wm protocol . WM_DELETE_WINDOW exit

Should read

wm protocol . WM_DELETE_WINDOW {exitMC 0}

Problem. MAT Preprocessor fails when attempting to define a new location (Ref OB8.1.1 DR 19206). (DR 19603)

When increasing the number of forecast temperature sites, the MAT preprocessor fails with the following message:

ERROR ARRAY IARY TOO SMALL. 40000 WORDS AVAILABLE. 40871 WORDS NEEDED.

NOTE THE ABOVE ERROR OCCURRED IN ROUTINE TEMP .

The IARY Array is too small and needs to be increased in size.

Problem. WarnGen: wwaDefaults.txt needs to be removed from the baseline. (DR 19600)

The baseline /data/fxa/nationalData/wwaDefaults.txt file needs to be removed from the baseline. This files defines a percentage of the warning area (county, etc.) to be in the polygon before being officially picked up as part of the warning. Sites which do not have thresholds defined as part of their customFiles are subjected to this file without their knowledge. It has caused confusion for many sites, developers and testers since the switch to warning by polygon.

The removal of this file would mean that sites which do not have a definition in customFiles would have a zero threshold for area inclusion.

Problem. WarnGen:Vertices should be locked for CORs. (DR 19599)

WarnGen currently allows the vertices to be moved in a COR. This is not allowed in the polygon era. The vertices should be locked as they are for EXTs and CANs. This applies to all CORs for all warnings and followups. CORs are for text mistakes only and not for adjustments in area.

This could potentially lead to new areas being included in a correction which goes against VTEC policy and Warning by polygon philosophy. Fortunately this has yet to happen operationally, but the issue should be resolved before next convective season to prevent an accidental occurrence.

Problem. HWR: All Sites: Time Change Issue ST/DST. (DR 19596)

HWR seems to be mishandling the change from Daylight Time to Standard Time and Vice-Versa. Tested on TBW3(Boston) and found that within the 15 minute time period before the change from EDT to EST (0546Z to 0600Z on November 4 2008) HWR reports are returning a time of 2AM EDT, when it should read 1AM EST. Again this only occurs on the date of the time change. After 0600Z and before 0644Z HWR rounds back to 0600Z and correctly reports a time of 1AM EST.

Again on TBW3(Boston)...I checked the change back from EST to EDT and found that from 0645Z to 0700Z the time on the report was 1AM EST and I think it should be 3AM EDT. The time on the report produced between 0700Z and 0744Z was correctly 3AM EDT. Note: HWR treats all time from 0645Z to 0744Z as 0700Z.

Problem. In 'Initialize Climate Database', can't change years for record temps. (DR 19595)

LZK reported that they can't edit any of the year of occurrence of years 1, 2, or 3 for record maximum or for record minimum temperatures (6 fields total) in 'Initialize Climate Database'. You can highlight the value with the mouse, but you can't change it.

They are not sure when this was last possible, they think possibly OB6.

I verified the issue at NHDA.

Problem. Issues in D2D with display of LSR data. (DR 19591)

David Friedman asked me to write this DR from a ticket that came in from ILN. The following is the email that Todd Shobe sent. I am attaching his screenshots.

This first point is the less critical one, but I'm just going in the order of the menu options from top to bottom. As I mentioned earlier, it would be good if there was a cross hair plotted with the symbol when the "Office" LSR option is selected, so the forecasters know exactly where the report is centered (like with the "Local" and "Region" options). I know there are limitations with the resolution in D2D, but it appears that the "Office" LSR symbols are sometimes plotted slightly to the side of a particular lat/lon. I'm including a screen shot, "d2d_lsr_local_20071019_0325Z_latlon2.png", of a report plotted from the "Office" option. The cursor didn't show up in the capture, but the symbol appeared slightly to the left of the actual lat/lon.

Next is the more critical incorrect time and partial/combined remarks when sampling the "Local" and "Region" reports. I'm attaching a screen shot, "d2d_lsr_office_20071019_0325Z.png" that is supposed to be the same report displayed in the first capture. You can see that it is plotted in a different location, and the time shows as 1457. The original LSR (attached as "clelsriln_20071019_0325Z.txt") contained a report from both 10/19 0357Z and 10/19 0325Z. D2D appears to use some version of the time from the first report in the product, as well as the lat/lon placement. I tried to find a plot of just the 0325Z report from the "Local" menu option, and could not. Selections from the "Region" menu showed the same results. You can also see in the screen shot that the two individual reports in the text product seem to be combined when sampling. The word "ROAD" is included from the 10/19 0357Z report, but the rest of the text is from the 10/19 0325Z report that I actually want.

Problem. NWRWAVES: FFW test products are erroneously sent to CRS. (DR 19590)

Springfield (SGF) office ran some static tests for HVTEC2 awhile back, and noticed that some of the test messages actually went to CRS, instead of the pending browser as was expected. SGF staff has attached the log files from NWRWAVES for both FFW products, which indicate that for some of the segments, the TEST wording was indicated but the product was still sent to CRS. The following is a sample of the debug file that indicates the message was sent to CRS:

****MESSAGE ASSEMBLY FOR SEGMENT: 1 VTECLINE: 1 ****

CRS Header Expiration from segment|0709141831|

CHECKING UGC CONTENT FOR GENERIC MESSAGE ASSEMBLY...

Applicable UGC codes for all transmitters of this generic message type: MOC067

Generic Message Countylist phrase: Douglas County, Missouri

UPG/CAN VTEC DETECTED. GENERATING CANCELLATION MESSAGE: MOC067

Issue time: ISSUED AT 01:25 PM CDT.

Attempting to Transmit ./OUTPUT/STLFFSSGF.V0230_530_14182530 to CRS...

./OUTPUT/STLFFSSGF.V0230_530_14182530 successfully sent to CRS /ready folder!

FINAL OUTPUT CANCEL/UPGRADE CRS MESSAGE:

 aT_ENGSTLFFSSGF07091418250709141825 530R430CD INMOC067c0709141835

THIS MESSAGE IS FOR TEST PURPOSES ONLY. THE FLASH FLOOD WARNING HAS BEEN CANCELLED FOR THE TEST RIVER BELOW THE TEST LEVEE IN EASTERN DOUGLAS COUNTY, THIS IS A TEST MESSAGE. DO NOT TAKE ACTION BASED ON THIS MESSAGE.

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Problem. Hydrobase Low Water Impacts display. (DR 19585)

The Hydrobase Low Water Impacts display has two issues:

1. The user cannot enter a negative sign for stage values in the graphical display. However, the database has no such limitation. The graphical display should be modified to allow the user to enter a negative sign.

2. The upper value field is allowed to be undefined. If the user enters information and leaves the upper value field undefined, when that information is saved to the database, it is saved with a value of 0. I should be undefined, or NULL.

Problem. Rivermon displays old VTEC Event End Times/UGC Expire Times. (DR 19584)

The rivermon application displays the latest VTEC Event End Time and UGC Expire Time for a given location, even if the times are in the past.

The user should have the ability to define a time window after which the VTEC Event End Time and UGC Expire Times are no longer displayed.

Problem. NWRWAVES - processes only the first segment of the GLF product. (DR 19576)

Effectively on October 2 2007, the Great Lakes Open Lake Forecast (GLF) changes from a non-segmented to segmented format (from service change notice 07-39). Both Cleveland and Buffalo offices reported that the NWRWAVES for their GLF and all was fine until they went to this new segmented GLF. NWRWAVES is only processing the first group (segment) and ignoring the second or even third group.

Problem. Small enhancement: BOI wants sky cover set to MM in climate. (DR 19574)

Boise Idaho says that they have not ever used the sky cover readings that comes in from their ASOS stations ever since they first started coming in around 1999. That is because they do not meet their quality control standards.

Since 1999 Boise has been editing the data to 9999 in the climate GUI each time they run climate so that it comes up as M in the F6 product. They do not display the possible sunshine in their

CLI product, but there is no option to not include column 15, sky cover, in the F6 product, so they have to always edit it to missing.

BOI wants a special case in the climate code for their site, something like if site id is BOI, sky cover = 9999, for each of their climate sites so that they don't have to do the editing any more.

Problem. Default contouring of some RTMA grids is too dense. (DR 19572)

Default contouring of some of the RTMA fields default is too dense to be useful. The style entries should be modified so the default contouring is less dense. When you display any of these fields on sufficiently large scales, the contouring routine overflows (DR 19571). When this happens, the pane is no longer usable. Subsequent contours don't display correctly. They're broken and the labels don't display. The pane can even hang if you display more than one of these fields. Some of the problem fields include:

RTMA Surface Divergence

RTMA Surface Total Deformation

There are also many of the AK-RTMA fields where the default contour is too dense.

There may be others and other AK-RTMA fields that also have the problem.

Problem. GUAM Sunrise/Sunset GUI Error. (DR 19564)

At GUM ... The sunrise/sunset GUI will not open in D2D. The problem stems from the time stamp being four letters when the system is only looking for three letters. The fourth character "T" is unexpected. This is also an issue with the new Alaska timecode. (AKDT, AKST)

Problem. OB8.1 : XSETS could not create contingency forecast. (DR 19559)

This is NOT an enhancement - this is a bug. Can not change the "ENHANCEMENT" field from Y to N. Change made 11/29/07 EJM

With XSETS an attempt was made to setup a input command file for one site to create a message using the proper SHEF TS code for a contingency forecast using one of the new AWIPS PILs.

According to the documentation, Section VI.5.4-XSETS-CONFIG XSETS CONFIGURATION FILE FORMAT. pg 5 field 57, a forecast office is supposed to be able to define the SHEF code of data to query and use for the forecast value, i.e., the SHEF Type/Source

A portion of the input file used can be found below under INPUT.

The resultant message that was generated by XSETS can be found below under OUTPUT.

As you can see, XSETS picked up the change in product id but it did NOT pick up the SHEF Type/Source Code indicated in the input file.

INPUT:

! FYTM7 "FAYETTE MO" "MONITEAU CREEK" 1

FYTM7FT1 "" QINE Y FYTM7 FYTM7 HGIC1ZZ 6 5 CRFMTB CS:0.0 CS:0.0 " HSA - EAX"

OUTPUT:

ZCZC MKCCRFMTB DEF

TTAA00 KKRF DDHHMM

CRFMTB

RIVER FORECAST

NATIONAL WEATHER SERVICE

MISSOURI BASIN RFC - PLEASANT HILL, MO

1549Z MON OCT 15 2007

```
:
: THIS PRODUCT HAS PRELIMINARY DATA THAT MAY BE SUBJECT TO REVISION.
: REFER TO YOUR LOCAL WFO FOR THE LATEST OFFICIAL RIVER FORECAST.

:   FORECAST GROUP IS TEST 1-HR TIMESTEP
:
:
:
:
:FAYETTE MO - MONITEAU CREEK     HSA - EAX
:FLOOD STAGE 16.0    FCST ISSUANCE STAGE 14.0
:
:LATEST ESTIMATED STAGE 4.2 FT AT 1200Z ON 1015
.ER FYTM7    20071015 Z DC200710151549/DH13/HGIFF/DIH6
:QPF FCST       12Z       18Z       0Z       6Z

.E2 :1015:/     4.2/     4.3/     4.6/     4.6
.E3 :1016:/     4.5/     4.5/     4.4/     4.4
.E4 :1017:/     4.4/     4.3/     4.3/     4.3
.E5 :1018:/     4.3/     4.3/     4.3/     4.3
.E6 :1019:/     4.3/     4.3/     4.3/     4.3
:**************************************************************************
:COMMENT
:
:
:
:
$$
:...END of MESSAGE...
```

Problem. SNOW: Mesonet names not being sampled. (DR 19548)

In OB8.1, users of SNWOW and SAFESEAS can move the cursor over the coded ID's of counties, zones, and observing platforms to see the actual names appear in sampled text. This helps the user easily identify the counties/zones/platforms more easily than just using the coded ID's. The ILX WFO reported that this feature is not working for the Mesonet stations in SNOW. MDL has replicated the problem, which would affect both SNOW and SAFESEAS, and we have a fix tested and available. We would like to get the fix in as soon as possible -- while SNOW and SAFESEAS can still display and monitor mesonet data, this sampling feature will be particularly helpful for users wanting to sort through numerous and obscure mesonet stations. We are trying to find a workaround (unsucessfully so far). N/A OB8.1

Problem_19528 D2D: Pane resets when sampling product. AN -- 10/8/07 -- Found on TBW3, verified on TBDW

The main D2D pane (#1) resets when the following steps are followed.

1) Load NCEP/Hydro > SPC Watches
2) Right Click and turn on Sampling
3) Advance frames with keyboard or D2D GUI button.

Guardian: "Announcer: Restarting a display pane process."

The work around for this is to sample each frame manually without turning on sampling (and by avoiding sampling and advancing the frames at the same time.)

This seems to be the only product that has this problem.

AN 10/19/07 Update... The problem only occurs when certain frames are sampled. I found two frames that cause the problem and they both seem to be void of data. I attached the IGC log file to this DR. The error can be found at the end of the log file.

Problem. SAFESEAS: problem loading default threshold file. (DR 19527)

Seen at the Taunton WFO during an MDL visit in late September: When the user opens the SAFESEAS display configuration interface and selects the "File-->Load Default" option, a tcl/tk error appears. The workaround is to selct the "File --> Select As Default" option, choosing a file, and the close and re-opening the GUI. This was opened as a minor DR because the user, while inconvenienced by extra button clicks, can still perform the needed actions, and because the user will not necessarily use this functionality during a SAFESEAS session.

Problem. SNOW: wrong trend in vertical mode. (DR 19525)

Seen at EPZ during an MDL site visit, and replicated on the NMTW: When a user configures the SNOW table to display in the "vertical" mode and attempts to display a trend graph for one of the parameters, a trend graph for a neighboring trend graph appears instead. This could cause confusion for users if they choose to display the table in the Vertical mode (the default is a horizontal orientation, which works properly). There is no workaround.

Problem. Lift lowest 50mb restrain in the PMAX lifting method. (DR 19524)

Currently the PMAX lifting method is defined as: "This lifting method computes the pressure, temperature, and dewpoint temperature of the most unstable layer in the lowest 50 millibars, which typically has the highest wet-bulb temperature." (http://www-md.fsl.noaa.gov/~cheatwoo/AWIPS/OB6-UM/6_2_1.htm)

DLH doesn't want the lowest 50mb retrain in it. It has surveyed (informally) several forecasters in its office and all believe it shouldn't have the 50mb restrain. Michael Moss also supports the change. See more in the email attached.

The new PMAX lifting method definition is: "This lifting method computes the pressure, temperature, and dewpoint temperature of the most unstable layer in the soundings."

The *User Manual* should also be updated with the new definition.

Workaround: No.

Problem. DE: ECMWF cdl file has wrong units for precip. (DR 19517)

The cdl file for the ECMWF_HiRes (ecmwf.cdl) has the wrong units for the total precip field (tp_ecmwf). The cdl file has units of mm (millimeters), but the data is actually in m (meters). The total precip is stored in meters, and it is converted from meters to inches for D-2D display, so there is no impact on the display. There may be an impact if users are pulling data from the netcdf file directly and use the unit information in the netcdf file since it is erroneously mm instead of m.

Problem. FCINIT is improperly reading flood waves. (DR 19507)

Joanne Salero from NWRFC called that RFS FCINIT is improperly reading flood wave segments.

It has never worked as far as she knows.

In output file tide.fldwv2.20070913.183515 (line 765), you can find that PO Array was messed up.

Both ID and TYPE are wrong, but there is no any WARNINGS or ERRORS.

Problem. AF: Remove X.400 processes from dsswap for RFCs. (DR 19500)

Note: This is only applicable to RFCs, but there is no selection available in the drop-down for RFCs only.

Conditionally remove the code that starts the X.400 processes and the uplink_send processes from dsswap for RFCs only.

Problem. Fog Monitor: Wrong satellite assingment near 100W longitude. (DR 19491)

At the Goodland WFO, the Fog Monitor failed on px1. Investigations of Fog Monitor's localization files (and comparisons with an earlier ticket) reaealed that the Fog Monitor was trying to access GOES-West data, while GLD gets GOES-East. This is occurring because the

localization-calculated centerpoint of Goodland's CWA is to the west of 100W longitude, and Fog Monitor's localization uses this status for its east/west GOES settings. The general localization for satellites uses 100W as a GOES East/West determinant as well, but only if other indicators don't work. Fog Monitor needs to use the same procedures as the general localization.

This problem will affect a handful of WFO's bisected by 100W (not all of them). THe workaround is to manually modify a few lines in a Fog Monitor localization configuration file. This is easy to do, but we don't want the WFO's to have to worry about it after every new build.

Problem. PX2's ingProcMon does not start on PX1 when failed over. (DR 19485)

When px2 is failed over to px1, px2's ingProcMon.pl does not start up on px1. The script does an 'exit' instead of a 'break' when checking if it needs to start up.

Problem. AvnFPS: (OB8.3) Monitoring rule 'WxMetar' is broken. (DR 19471)

When using monitoring rule 'WxMetar', AvnWatch GUI issues false alerts.

Problem. Y-axis ESPADP graphic for Public Product Dropping Below Zero. (DR 19470)

ESPADP is generating a graphical product for public dissemination with the Y-axis dropping below zero. The values contained within the product are correct, its just the the graphic is causing confusion for some of our customers.

Problem. NWRWAVES: Make product expiration time for cancellations configurable. (DR 19469)

The current design of NWRWAVES is to send over any type of cancellation message with a 15 minutes expiration assigned by default, thus ignoring the UGC coded time. Rather than hard-coded this default time in the source code which cannot satisfy all the WFOs' need, a configurable entry will be added in the NWRWAVES setup GUI to allow a flexible change.

Problem. AF: MHS does not send retrans requests correctly following switch. (DR 19467)

This is a long standing bug that was just identified. When switching between ANCF and BNCF, the current scripts for the retransmission process do not repoint the SBN channel floaters to the new active NCF. This is only an issue when sites don't receive the switch command from the NCF, or they swap dx1apps between dx1 and dx2 after the NCF has switched. The sites have a bug in that the switching script should update the symbolic link for /awips/ops/data/mhs/rcv_handler.tbl on both dx1 and dx2 when a switch command is received instead of only updating it on the server running dx1apps. Since one file must be changed to fix both of these bugs, they will both be addressed in this DR. The files that need to be modified are: start_ncf_mhs_distrib, start_retrans_mhs, and mhs_ncf_switch (NCF and sites).

Also identified issues with switch_comms_ncf (still pointing to "ms" servers instead of "mh") and start_comms_mhs_send (incorrectly assigns an environment variable). These are both NCF scripts that do not apply to sites.

Problem. AF: Create NCF MHS availability monitoring application . (DR 19466)

The NCF has a need to report MHS availability statistics to the AWIPS program manager. This DR is for the creation of the applications that will generate the data points and create a daily report by site of MHS availability as a percentage. This application will have a component that resides at each site to parse the MHS logs for test messages. The main application will reside at the NCF. There is no impact to the forecasters of this new applications.

Problem. AF: Create NCF WAN availability monitoring application. (DR 19465)

The NCF has a need to report WAN availability information to the AWIPS program manager. This DR is for the creation of the applications that will generate the data points and create a daily report by site of network availability as a percentage. This application will only run at the NCF. No software will be installed at sites. There is no impact to forecasters.

Problem. FFG image does not display correctly. (DR 19464)

FFG products do not display correctly at PTR. This can be fixed by updating a line in makeDataSups.csh:

```
$makesuparg 1 90 -105 0 HrapNWRFCffg.sup \
 g 60 -105 37.975 -124.194 4.762 4.762 400 378
```

Only HrapNWRFCffg.sup should be changed.

PTR has already done this, but the fix should be baselined so it is not overwritten every release.

Also see DRs 13591, 15072, and 16321.

Problem. MOS and GFSLAMP point directories not being purged. (DR 19461)

The BufrMosDecoder creates files named in the format <yyyymmdd_hhmm>.status in the directory above the netCDF storage directory. These files are not being purged. The following directories are affected:

```
/data/fxa/point/gfslamp
/data/fxa/point/mos/MRF
/data/fxa/point/mos/NGM
/data/fxa/point/mos/ETA
/data/fxa/point/mos/GFS
/data/fxa/point/mos/HPC
```

While a directory may hold hundreds of these files, each file is only a few hundred bytes in size. Therefore storage is not likely an issue, but this needs to be cleaned up nonetheless.

Problem. ESPADP is Labeling the Quartile Display Incorrectly. (DR 19456)

ESPADP is labeling the quartile display incorrectly. The information in the text display does not match what is actually output to the screen. Specifically, neither the analysis period nor the interval reflect the interval for which the exceedance plot is computed.

This is a public product.

Problem. SHEF decoder posting incorrect probability values. (DR 19454)

The SHEF Format provides a set of attributes which can be used to describe a data value. One of these attributes is a probability which can be attached to the data value. In the SHEF format, the probability is a single alpha-numeric character, which when decoded, results in a pre-defined probability value being posted to the hydro database. With OB8.1, the SHEF decoder is posting incorrect values to the database based on the single-value probability character in the SHEF message.

There are actually two issues:

1. Some probability values are being posted with a rounding error. For example, a SHEF encoded probability character of A should result in a probability value of 0.002 being posted to the database. What gets posted is 0.001999.

2. Some probability values being posted are completely wrong. For example, and SHEF encoded probability character of 7 should result in a probability value of 0.7 being posted to the database. What gets posted is 0.500781.

A complete set of SHEF probability codes, the correct value, and what is being posted is included in an attachment.

The impact to the user is that monthly probabilistic products being created by the Riverpro application--which provide probabilities of exceedance for river heights--are being generated with missing data values because the 0.7 and 0.9 probability values are being posted incorrectly. The only known workaround is to manually adjust the probability values in the database, using SQL commands.

Problem. PostGres missing awips2nwr table. (DR 19453)

While testing Basleine_NWREditor on TBDW and TBW4...

After entering the following:

> Text identifier: WBCZFPLWX
> NWR Identifier: WBCZFPNW1
> Unable to "Make Header Default" (Step #20)

Error on bottom of NWREditor GUI "Unsuccessful: default message attributes not changed."

It was found that the awips2nwr table existed in old Informix DB but not in Postgres DB.

Problem. Misleading extraneous log message in TextDB.C. (DR 19451)

If one has verbose logging on when accessing the text database (e.g., in the IGC_Process log), one sees either "Initializing TextDB constructor using flat file for storage" or "Initializing TextDB constructor using textdatabase for storage", depending on whether or not the system is in practice mode. In either case, this is followed by "Initializing TextDB constructor using flat file for storage", which can be confusing (it confused me) when diagnosing text access issues. The

fix is simply to remove the logVerbose call at line 99 of TextDB.C. (This error was introduced in OB6, Mar 05.)

Problem. GFE/GHG Monitor domain mapping cause problems for AJK Target OB8.3. (DR 19449)

GHG Monitor is including 2 zones AFZ191 and PKZ175 in AJK's GHG Monitor display which should not be present. These 'far away zones' cause GHG's display to be very lopsided. The problem originates in ShapeFile.py:domainClip(). There is a hack to work around a bug in arcexplorer under some conditions. Those conditions do not account for cases where the zone is defined with lon/lat on top of the 180 lon. line.

The code fix has already been written, this problem is considered critical by the site and by Duane Carpenter. A work around is in place which does the equivalent via local configuration, but a proper fix to this is needed.

Problem. AF: duptext uplink_send process crashing on dx1f. (DR 19443)

The products in /data/fxa/mhs/products/duptext_filter are duplicate products that have already been transmitted over the SBN, so this is a redundant data path. The impact is that sites that miss these products, which include warnings and watches, when they are transmitted over the SBN will not get them if the uplink_send process has crashed. These products will also fill up the NAS file system thereby affecting other areas of AWIPS. The NCF will set up an ITO alarm on this directory to provide proactive monitoring once the problem occurs.

Problem. Small enhancement: add OPC and TAFD gridded wind speed and direction into AWIPS. (DR 19438)

Wayne Weeks submitted the following enhancement request: I would like to initiate a high priority DR task for AWIPS OB9. This would be a small enhancement requiring a small amount of developer time. Almost all of the programming and development is being done at the NCEP Ocean Prediction Center.

We would like the addition of the OPC and TAFB Gridded Wind Speed and Direction to AWIPS. At present, AWIPS can display OPC and TAFB significant gridded wave heights as an experimental product (PDD at http://products.weather.gov/detaile.php?selrow=268). The OPC and TAFB will prepare the forecast sea surface winds for the 24 and 48 hour time periods for the same grids as significant gridded wave heights. This will allow forecasters in the WFOs to display them as national center guidance, and will be of particular importance when a tropical system or winter storm approaches or moves along the coast.

Problem. Incorrect Immediate Cause with WarnGen Flash Flood Product. (DR 19435)

The current immediate cause used in WarnGen for the non-convective Flash Flood Warning for Dam Floodgate Release is DM. It should be changed to DR (Upstream Dam or Reservoir Release). This information was originally reported in DR 18974, along with some other information. DR 18974 is being considered as an Enhancement DR, but this particular problem is a defect which should be corrected.

Problem. Inset map zoom problem. (DR 19411)

If one zooms in on the inset map (in a skew-T or time height display, for example), then changes the global density so the map disappears, the whole display zooms, by an amount equivalent to how much the inset map was zoomed.

Problem. AvnFPS: Restore count feature when All Metar selected. (DR 19405)

Showing metars in the TAF Viewer/Editor the number of observations for a site can be selected by forecaster. When toggle 'All' is selected, the same number is used which is often not what the forecaster wants. Prior to OB8.1, this was implemented differently and this feature was lost with OB8.1.

Problem. remove stop/startORPGCommsMgr from ingest scripts and add to cluster. (DR 19395)

Having the stop/startORPGCommsMgr in the stop / start ingest could present problems which may lead to radar data loss. Suggestion is to move the stop / start script into the cluster dx2apps software scripts.

Possible Problems include:

1. ORPGCommsMgr takes 30-60 seconds to reconnect with RPG after process restart. This is on top of the time it takes to restart the process.
2. Radar data which is sent from the RPG while ORPGCommsMgr is down or not ready to accept data is dropped on the floor, not queued.
3. Configuration changes which were not followed by a software restart may cause problems starting ORPGCommsMgr when site just intended to restart ingest.
4. Other radar problems which require a restart of radar-related processes (RadarStorage, RadarServer) do not affect ingest (ORPGCommsMgr) and should not cause ingest downtime.

Problem. ESP dropping ensembles (FCST/ESPADP). (DR 19380)

NWRFC found a problem with ESP dropping ensembles. When running ESP within the current water year, everything is fine. By running ESP until the end of the next water year, it was generating one less trace than when it was running only within the current water year.

These are 5 test cases here: Run #3, #4 and #5 are right, but Run #1 and #2 are wrong.

window histwyrs first trace last trace error?
---
run #1
0723/2007/12Z 1001/2008/12Z 1949 1992 07/23/49 - 10/01/50 thru 07/23/91 - 09/30/92 no error
1. generates 43 traces ending at 09/30/92. should have 44 traces ending at 09/30/93
why no trace starting at 07/22/92 24PST and ending 09/30/93 24PST

run #2

0723/2007/12Z 0930/2008/12Z 1949 1992 07/23/49 - 09/30/50 thru 07/23/91 - 09/30/92 no error
1. generates 43 traces ending at 09/29/92. should have 44 traces ending at 09/29/93. consistent
consistent with run #1
why no trace starting at 07/22/92 24PST and ending 09/29/92 24PST
when our MAP/MAT files end at 09/30/93

run #3
0723/2007/12Z 0930/2008/12Z 1949 1993 07/23/49 - 09/30/50 thru 07/23/92 - 09/30/93 ERROR
1. generates 44 traces as expected in runs #1 and #2 but generates an error when attempting to
generate trace starting at 07/22/93 24PST and ending 09/29/94 24PST which it should since
our MAP/MAT files end at 09/30/93

run #4
0723/2007/12Z 0930/2007/12Z 1949 1993 07/23/49 - 09/29/49 thru 07/23/93 - 09/29/93 no error
1. generates 45 traces as expected and since window is spanning a leap day,
no problems with short traces

run #5
0723/2007/12Z 1001/2007/12Z 1949 1993 07/23/49 - 09/30/49 thru 07/23/93 - 09/30/93 no error
1. generates 45 traces as expected with no problems with short traces

See /fs/hseb/bugs/tt299956 for detail information.

Problem. 8-bit reflectivity updates with 4-bit data too soon. (DR 19373)

4-bit data may be substitued for 8-bit data when the latter is not available. Usually, 4-bit data arrives just before the corresponding 8-bit data and it is annoying to have D-2D display the 4-bit data only to have it replaced by 8-bit data a second later. DR 16312 was written to correct this. Although DR 16312 was tested and closed in Junuary, it does not seem to be working now.

Problem. OB 8.1 - AF: Create generic program to perform operations at all sites. (DR 19370)

This is not a bug. It is a new small enhancement to allow the NCF to quickly and efficiently perform actions at multiple sites. For instance, this program could be used to get a copy of the current MHS logs from every site and copy them back to the NCF with a single command within 2-3 minutes.

This is for software that will only ever be installed at the NCF. It will never be a part of an OB release.

Problem. Carryover Fails After Defining a New Segment (FCINIT). (DR 19363)

OFS FCINIT & FCST

When attempting to defining segement SWAN3UCT in FCINIT, the following WARNINGS occur:

0**WARNING** SLOT NUMBER 5 FOR SEGMENT SWAN3UCTIS INCOMPLETE. THE DATE FOR HAS BEEN SET TO JULIAN DAY ZERO AND HOUR ZERO.

NOTE
THE ABOVE WARNING OCCURRED IN SEGMENT SWAN3UCT
FOR ROUTINE FCDATE .

0

0**WARNING** SLOT NUMBER 5 FOR SEGMENT SWAN3UCT IS INCOMPLETE. NO CARRYOVER TRA

NSFER WILL OCCUR.

NOTE
THE ABOVE WARNING OCCURRED IN SEGMENT SWAN3UCT FOR ROUTINE SSTG.

This results in the generation of incorrect values for the location of start/end of carryover record in C array.

Then when you attempt to run 'carrysave' in FCST, the following ERRORS occur:

*** ERROR ***
FOR SEGMENT SWAN3UCT AN INCORRECT NUMBER OF CARRYOVER VALUES
WERE WRITTEN TO THE TEMPORARY SAVE FILES.

CORRECT NUMBER OF VALUES = 706 ACTUAL NUMBER OF VALUES WRITTEN = 727.

*** NO CARRYOVER WILL BE SAVED FOR THIS RUN ***

NOTE
THE ABOVE ERROR OCCURRED IN SEGMENT HDLN3UCT
FOR ROUTINE FCWTCO.

0**ERROR**
ERROR OCCURRED PROCESSING OPERATIONS TABLE FOR SEGMENT HDLN3UCT.

NOTE
THE ABOVE ERROR OCCURRED IN SEGMENT HDLN3UCT
FOR ROUTINE FAZE2 .

0**NOTE**
SEGMENT ENDED - NO TIME SERIES WRITTEN TO FILE.

Problem. Fog Monitor: Crash while filtering sea ice. (DR 19290)

On TBDW and TBW3, the FMprocessor on px1 was observed to crash intermittently (every couple of days, though at one point on 7/24, it crashed repeatedly upon startup, which probalby rules out a slow memory leak, but not necessarily other memory problems). The log file indicates that the crash occurs as the process enters the sea ice filter algorithms. The operational significance of this problem is that the FMprocessor provides data for the D-2D's Fog Monitor displays, so the use of the Fog Monitor will not be possible if the problem grows from "intermittent" to "persistent".

Problem. GYX: Mozilla Browser incorrectly reports. (DR 19200)

SNOWprpocessor dying every minute. AWIPS Process Monitor Browser log indicating the SNOWprocessor is dying every minute when it is in fact not. The log showed the 'DataController COMMS_ROUTER SNOWcontroller.co.' process died every minute. This error could happen to FogMontor process too as 'DataController COMMS_ROUTER FMcontroller.conf' died every minute.

Impact: Minor

Workaround: No.

Problem. Listed software version needs to be updated for GFE pre-release. (DR 19190)

Data in /data/fxa/LDAD/mdl_data is not being purged correctly. The most recent versions of the files are being purged instead of the oldest. This problem may be related to DR 18789.

Workaround. Change the purge method specified in nationalData/purgeInfo.txt from

999765| LDAD/mdl_data | ,,,i | | 20

to

999765| LDAD/mdl_data | | 2- | 20

Problem. Error in watchDogExternal.sh. (DR 19098)

The watchDogExternal.sh created huge log saying no such file or directory for /opt/java/bin

Problem. Warngen: incorrect wording for Dam Floodgate Release. (DR 18974)

In the non-convective FFW, if you choose Dam Floodgate Release as the Primary Cause then there are several incorrect wording errors. The first is error is that the Primary Cause of Dam Floodgate Release should be renamed to Dam or Reservoir Release. The Immediate Cause should be change from DM to DR.

Problem. Warngen: incorrect wording for Volcano Induced Snow Melt. (DR 18973)

In the non-convective FFW, if you choose Volcano Induced Snow Melt as the Primary Cause then there are several incorrect wording errors including the WarnGen Primary Cause and the wording for the first bullet or headline. The first is error is that the Primary Cause of Volcano Induced Snow Melt should be renamed Volcano Induced Snowmelt. This Trouble Ticket was discovered by Tim Helble on the NHDA System and was passed on 4/16/2007.

Problem. Warngen: incorrect wording for Rapid Rain Induced Snow Melt. (DR 18972)

In the non-convective FFW, if you choose Rapid Rain Induced Snow Melt as the Primary Cause then the Primary Cause should reworded as Rapid Rain Induced Snowmelt.

Problem. Warngen: headline wording wrong for Levee Failure. (DR 18969)

In the non-convective FFW, if you chose Levee Failure as the Primary Cause the first bullet or headline wording is wrong. This Trouble Ticket was discovered by Tim Helble on the NHDA System and was passed on 4/16/2007.

Problem. WarnGen adds too many extra vertices when you redraw from “hatched area" box. (DR 18963)

WarnGen adds too many extraneous vertices when you select the redraw from “hatched area” box:

1. Issue a warning – preferably a square county (without the polygon touching the county lines).

2. Select a followup SVS.
3. Move one vertex and then select redraw from Hatched Area box and several vertices will be added to the polygon.

* This is the first iteration of Warning by Polygon, and GSD will continue to refine the algorithm in future releases as the functionality is exercised more by the users.

* The Regional Focal Points agreed to defer this issue to the SREC as small enhancement for the next release.

This DR is a reincarnation of the canceled DRs 18548 and 18562.

Problem. DS decommissioning should remove CPU monitoring for DS. (DR 18904)

DS has been decommissioned from OB8.1. However, AWIPS System Monitor still shows both servers on CPU history display. Instead, they should be removed from the display.

Problem. New LDAD ls2 request for Sutron gauge data not processed. (DR 18865)

After submitting a request for Sutron gauge data, the Sutron gauge was not logged in /data/ldad/Processed or /data/logs/ldad/yyyymmdd.

Problem. New LDAD ls2 request for Handar gauge data not Processed. (DR 18864)

After submitting a request for HANDAR gauge data, the HANDAR gauge was not logged in /data/ldad/Processed or /data/logs/ldad/yyyymmdd.

Problem. New LDAD ls2 var/opt/hylafax/log not created. (DR 18863)

After sending a fax the /var/opt/hylafax/log was not created on ls2.

Problem. New LDAD ls2 FaxCapability Permission Denied. (DR 18861)

New LDAD. From the text workstation. Fax All or Fax selection. Selection the Send button. The following message displays:

/data/ldad/public/fax/SFOZFPSTO2007033144361.data: Permission Denied

...also fax did not send successfully.

Problem. New LDAD can not retrieve LARC data through LDAD server. (DR 18852)

While the LARC gauge is called using the LARC database information such as name, phone number, and communication protocols, the LARC data are not retrieved from the gauge. No status report information is displayed on the new request monitor.

Problem. New LDAD can not retrieve Campbell data through its server. (DR 18851)

While the Campbell gauge is called using its database information such as name, phone number, and communication protocols, the Campbell data are not retrieved from the gauge. No status report information is displayed on the new request monitor.

Problem. WG: Warned/Hatched Area button will create different polygons with each click. (DR 18759) [HELD]

When a initial polygon is created, especially along some boundary, such as a CWA or shore, each click of the "Warned/Hatched Area" button on WarnGen will create a slightly different polygon. At a certain point these changes will cease, usually by the second, third, or forth iteration. I believe the issue described in this DR is similar to DR 18768.

Problem. LWD: The combined FFW/SVR warning only plots as FFW on the display (DR 18433)

The combined flash flood and svr warning only shows up as an FFW on the local warning display. The display should plot both the FFW and the SVR. Otherwise the forecaster may not realize they have a svr in effect.

Jim Ramer comments: This is not achievable at all in the current design until Hydro VTEC is turned on. Even then it will be difficult. If this is a show stopper, then 8.1 will HAVE to be delayed.

Problem. AvnFPS: (OB8.1 PIT) Option to limit search in climate archive. (DR 18367)

Forecaster wishes to restrict the number of years to search in climate database before returning results.

No decision made as to whether this is a good idea to implement.

3.0 RELEASE OB7.2

Problem. Too few attributes allowed in SFAccessor::readDbfFileHeader() method. (DR 19598)

The FFMP K@@@_aggr_basin.dbf files can contain over 50 attributes after 'Basin Customization" processing at each local WFO. This artificially low limitation makes these data unavailable to AWIPS.

Problem. incorrect purge setting for HRAP/QPE. (DR 19546)

Accommodation was made for handling RFC-generated QPE grids under DCS 3285 (OB7.2), and additional work was done under DR 17547. Included in the latter was a purge setting for these grids (Grid/SBN/netCDF/HRAP/QPE), in gridPurgeInfo.txt. The syntax of the entry (| ,,,w | | 78) is not what was intended. This will keep the most recent 78 files, regardless of issuing RFC, while the intention is to keep six from each of the 13 RFC, which is accomplished with "|,w,,| | 6".

Problem. Failed site's database does not populate during service backup. (DR 19533)

The import_dtbase script needs to be updated to use pg_restore instead of pg_dump to populate the failed site's database during backup. Now that the postgres/informix conversion is past, import_dtbase is solely responsible for doing all the database operations.

Problem. Enhancement of sending environmental grid data to Radar ORPG. (DR 19492)

Environmental grid data is sent to ORPG every hour as a cron job since OB7.2 (DCS3277 implemented by GSD). The hourly RUC model data is used for CONUS site. RUC40 is currently used and will be replaced by RUC13 when RUC13 is available on SBN.

For OCONUS sites, other model data has to be used since there is no RUC model data available for OCONUS. The candidate models for OCONUS sites are GFS model (6 hour interval) and NAM12 model (3 hour interval).

On NAPO, GFS212 (6 hour) and NAM12 (3 hour) have been tested. Both GFS212 and NAM12 are received 4 times a day (00Z, 06Z, 12Z and 18Z). When using GFS212, at 04Z-09Z, 00Z6H (6 hour forecast of 00Z) is sent to ORPG; at 10Z-15Z, 06Z6H is sent; at 16Z-21Z, 12Z6H is sent; at 22Z-23Z and 00Z-03Z, 18Z6H is sent. When using NAM12, at 02Z-07Z, 00Z3H is sent; at 08Z-13Z, 06Z3H is sent; at 14Z-19Z, 12Z3H is sent; at 20Z-23Z and 00Z-01Z, 18Z3H is sent.

Mike Istok thinks this scheme can be improved. When using NAM12, at 05Z-07Z, 00Z6H is better than 00Z3H; at 11Z-13Z, 06Z6H should be used; at 17Z-19Z; 12Z6H should be used; at 23Z, 00Z and 01Z, 18Z6H should be used.

It is found from the source code that the desired valid time is derived from the latest netCDF. If the forecast file arrives late for several hours due to network problems or power outages, the environmental grid data sent to ORPG might be even farther away from the ORPG desired time. A fix is ready to be tested and can improve the scheme no matter what model is used.

Note: When switching to NAM12 model from RUC40 on NAPO, the size of the environmental grid data increases a lot. Due to the high resolution, the clipping size is increased to 70 x 70 from 22 x 22. The storage specified in the RPG side can not hold the large environmental data and RPG crashed. This problem has been reported to ROC and a fix is ready in ORPG Build10. To avoid the RPG crash when testing this DR, be sure to install the RPG fix first or disconnect the RPG temporally.

Problem. Fog Monitor: Wrong satellite assingment near 100W longitude. (DR 19491)

At the Goodland WFO, the Fog Monitor failed on px1. Investigations of Fog Monitor's localization files (and comparisons with an earlier ticket) reaealed that the Fog Monitor was trying to access GOES-West data, while GLD gets GOES-East. This is occurring because the localization-calculated centerpoint of Goodland's CWA is to the west of 100W longitude, and Fog Monitor's localization uses this status for its east/west GOES settings. The general localization for satellites uses 100W as a GOES East/West determinant as well, but only if other indicators don't work. Fog Monitor needs to use the same procedures as the general localization.

This problem will affect a handful of WFO's bisected by 100W (not all of them). THe workaround is to manually modify a few lines in a Fog Monitor localization configuration file. This is easy to do, but we don't want the WFO's to have to worry about it after every new build.

MK - From MikeC's discussion at the DR team call, this has been around for some time, at least from the spring, and is now being made into a DR. Based on that I have updated the Release Discovered to OB7.2.

Problem. WarnGen: LAT...LON points for GUM plot on wrong side of dateline. (DR 19482)

For offices with areas on the other side of the date line (GUM and possibly AFC), the lat...lons do not plot correctly. As our warnings will be verified by these polygons on 10/1, this issue impacts the ability for those warnings to be verified.

Since the lat...lon section has a specific format, there is no change the WFOs can make to allieviate this issue.

Problem. NWRWAVES: Remove the slash in dual time zones at noon or midnight. (DR 19474)

WFO UNR reported that their NPW output product that covered two time zones and also two types of advisories (wind and frost) includes a slash. For example, the output has:

> blah blah FROM MIDNIGHT MOUNTAIN DAYLIGHT TIME /1AM CENTRAL DAYLIGHT TIME blah blah

The correct output should be:

> blah blah FROM MIDNIGHT MOUNTAIN DAYLIGHT TIME, OR 1AM CENTRAL DAYLIGHT TIME blah blah

Problem. Riverpro doesn't generate proper precipitation accumulations. (DR 19441)

The Riverpro application can be used to generate tabular-formatted data products, retrieving any data which is in the hydro database. The application will derive incremental precipitation accumulations based on reported "PC" data. Some automated reporting stations report "PC" routinely during rain events, but during dry periods only report a value once or twice a day. When Riverpro is used to generate precipitation reports for these locations during dry periods, it reports a value of MISSING, instead of 0.

Problem. In climate GUI, not possible to update normal low temperatures. (DR 19434)

Lake Charles, LA reported that they could not change the minimum mean temperatures for their climate sites through the climate GUI.

I checked on NHDA, and we are not able to either. To reproduce the problem, open the climate GUI, then Initialize Climate, then change the value in the minimum mean temperature field and hit Modify. If you go to a different date and then come back to the previous date, the min. mean temp. is back to the old value.

I checked maximum mean temperature and record temperatures, but the problem only is occurring for minimum mean temperatures.

I talked to Shangdi Mo and he said it may be an Informix/Postgres switchover bug.

The workaround is to change the values in the database from the command line by doing a psql hmdb.

Problem. Flood Time Series Report Doesn't Consider Late Arriving Observed Data. (DR 19393)

Within the hydro application, a function called floodseq routinely queries the observed river data to identify observations greater than flood stage. The floodseq function executes once a day (as part of a cron). Observed values which are greater than flood stage are written to a separate database table called floodts. As part of the floodseq function, it notes the last observed time for which data has been queried for each location. That information is also written to the floodts table to identify the bginning point for the next day's query.

For some locations--particulary manual observing locations--observed data may not be recorded and reported for a few days. Important observed values during a flood event may not be captured and written to the floodts table, because they were reported late. As a result, the hydro program manager will not have a complete set of information about a given flood event. This may impact the definition of the flood event crest, which for near-record flood events, could impact the VTEC information displayed in subsequent flood events for that location.

Problem. GFE: Incorrectly Cancelling FL.A. (DR 19388)

The FFA product can be issued by both GFE and RiverPro. But the VTEC phenomena codes issued by each are different. The problem lies with GFE reading the RiverPro-issued FL.A. It shows a CAN of the FL.A as the hazard is not part of the allowedHazards. GFE should be ignoring any other phen/sigs.

This issue prevents a site from having both a GFE- and RP-generated FFA valid concurrently. There is no acceptable workaround for this issue other than to pick one of the FFAs and mention the other in it. Both VTEC products cannot go out.

Problem. Small enhancement - Update GHG templates for dam failure watches. (DR 19387)

1. Title: Updated Graphical Hazards Generator (GHG) Templates for Dam Failure Watches
2. Originator: Tim Helble, OCWWS, (301) 713-0006 x152
3. Submitting Authority: Leroy Spayd
4. Description: The NWS mission is to provide forecasts and warnings for the protection of life and property and to provide information for the Nation's economic well-being. The current templates provided in GHG for flash flood watches (FFA) and followup statements issued under the same AWIPS identifier do not meet the operational needs of the weather forecast offices (WFO) during potential dam failure situations. The protection of the public from dam failure will be compromised if new templates are not added to the base line for AWIPS.

There is much more that does not fit in the text box.

Problem. RPS Merge Logic Allows Duplicate Elevations Into RPS List. (DR 19386)

There appears to be a problem with the radar RPS list merge logic. When a site changes the VCP mode of a particular radar, and they are a national reporter for that radar, it takes the KXXX.[storm|clear-air].VCP##.rps list and merges it with the rps-RPGOP-tcp.storm or .clear-air lists in /data/fxa/radar/lists/. This process should eliminate any duplicate products which exist in the lists based on the elevations which are available for that VCP mode (shown in the VCP_ConfigTable.C). This logic seems to work for the 0.5, 1,3 and 2.4 degree elevations as these are duplicates of the 0.5, 1.5, and 2.5 degree elevations in the baseline lists. However, the the 3.1 elevation is being missed in this logic. For example, if a site goes into VCP12 mode, the baseline RPS storm list has the 3.5 elevation for 4bit Z product. This merged list is sent, and the RPG sends back the next closest elevation, which is the 3.1. If the site has the 3.1 in their custom RPS list, this will get sent as well, where it should have been filtered out during the RPS list merge.

The impact of this could be blank radar updates for this, or any other elevations which may have the problem, as well as duplicate images being sent to the central server for external distribution.

Problem. Simpact Freeway software not installed correctly on DXs. (DR 19383)

While trying to get radar dial-out to work at SJU, a number of problems were found that appear to affect most sites:

1. The DXs do not have "simpact1" and "simpact2" in /etc/hosts (SJU only?)
2. /opt/freeway/bin is not writable by user fxa. This is needed because dialConfig.sh and the like change to this directory to run x25_manager scripts. x25_manager needs to create two log files, tsilog and tsitrace. If it can't do that it will fail without saying why.
3. Simpact files in dx1:/awips/fxa/bin are broken symlinks. This will be a problem during failover.

The ***workaround*** is to manually correct the problems.

Note: The radar dial-out still does not work at SJU. The root cause is still being investigated.

SJU corrected a wiring problem at the site and they are now able to use dial connections. This DR only needs to correct the three issues listed above.

Problem. hmingest stops ingesting products. (DR 19376)

IND experienced a halt in hmingest processing files from /data/ldad/hmIngest to /data/ldad/public/nwswwas. It is believed this was just an extreme case of a problem found at several sites where there is a delay in hmingest processing files. This delay was found to be around 10-60 minutes, but would vary depending on the process and product load. IND happened to have many more products than average sites would going through the hmingest process. Please see attached writeup for more details.

Problem. In climate F6, sky cover summary gives incorrect data. (DR 19374)

PQR reported that the sky cover summary in the F6 is giving incorrect data. I looked and found the problem at LWX as well. Here is an example from DCA from July 2007:

CLEAR (SCALE 0-3) 2
PTCLDY (SCALE 4-7) 22
CLOUDY (SCALE 8-10) 7

If you add up the daily sky cover numbers in the report above the summary, you get instead

0-3: 3
4-7: 18
8-10: 10

I looked back through some old F6's and it looks like this has been happening at least since OB7.1. The workaround is to manually edit the product before it's submitted.

Problem. Small Enhancement: Request addition of Air Quality Advisory formatter. (DR 19372)

Email from Art: It's a small enhancement request for all sites. The addition of an AQA (Air Quality Advisory) formatter is being requested. Here is some of the email with detailed information:

AQA Product Formatter - some verbiage on this was included in the description of DR 18629 above. The Air Quality Alert Message (AQA) was a recently created new Product ID in which NWS offices use to relay alert information on air quality from external agencies. The AQA PIL creation was approved by the DRG in late June - #10649.

We need a formatter created in the AWIPS baseline so offices can create this product. Eastern Region has developed a formatter for the AQA which has been circulated to the other Regions. I have pretty in-depth info on that formatter if needed. We are looking to see if a DR was ever created for this.

Problem. AF: Create program to monitor logs for ITO This is NOT a bug. It is a small enhancement. (DR 19371)

There is a need to provide a helper application for ITO that will allow real time triggering of important events (for instance, sendmail rejecting connections). The current method employed is to repeatedly grep log files on a periodic basis. This is both CPU and I/O intensive. In addition, critical events that occur when a log file rolls over between ITO scans will not be detected.

This program will capable of monitor any ASCII log file. Since the monitoring will be done in real time, it will not require redundant scans of the same file. It will also handle log file rollover issues.

This will be implemented initially on dx1/2 for monitoring MHS and sendmail logs for various events that require human intervention. It can be used to monitor any logs that are persistently located and named, however.

Problem. AF: Restrict number of instances of nwstg recv process on dsup servers. (DR 19369)

Number of nwstg recv processes keeps increasing as and when new request arrives from NWSTG to uplink data servers at NCF.This needs to be regulated in such a way that when thre is no data flow the appropriate connection will be closed after a finite amount of time.A new instance of the process will be created when a new connection request is initiated.

Problem. Climate F6 - Max 24hr precip is incorrect in rare case. (DR 19366)

WFO Topeka discovered a rare case that is not accounted for in the code for the monthly max 24hr precip. in the climate F6 product.

The climate program checks the previous 23hrs from each date to catch non calendar day 24hr precip events. However, there is no check so as not to do this on the first of the month. So if there is a heavy precip event on the last day of the previous month, that precip can incorrectly be considered as occurring in the current month. This does not affect anything else such as precip totals. It's only in the summary area in the lower part of the F6 under [PRECIPITATION TOTALS] where it says for example GRTST 24HR 0.79 ON 4- 4.

During the month of July, Topeka KS had a max 24hr rainfall of 0.79 inches on the 4th. However, there was a rainfall of 0.99 inches on the 30th of June. The climate F6 program said

GRTST 24HR 0.99 ON 30- 1 instead of
GRTST 24HR 0.79 ON 4- 4.

Problem. Small Enhancement: Add ability to store vertical datums for all locations. (DR 19358)

Currently, the IHFS database only allows the user to define vertical datum reference information for river locations. The horizontal datum reference information is able to be defined for all locations--not just river locations. The vertical datum reference information needs to be able to be applied to all locations as well, not just river locations. Specific requirements include:

1. Modify the IHFS database to include the vertical datum as part of the location table schema (as is the case with the horizontal datum).
2. Remove the vertical datum from the riverstat table schema.
3. Define a set of acceptable vertical datum reference values.
4. Assure that the vertical datum information associated with each location is one of the acceptable vertical datum reference values.
5. Allow the user to manage the acceptable vertical datum reference values and the vertical datums defined for each location (most likely via the Hydrobase Manager tool).

Problem. IGC_Process crashes when swapping pane displaying local warnings. (DR 19348)

If a pane is loaded with "all regional warnings" is swapped out and swapped back in, it will crash (and restart.) The following message is seen in the log:

> IGC_Process 20008 1186442518.791008 23:21:58.791 EVENT: Swap table
>
> IGC_Process 20008 1186442964.866155 23:29:24.866 BUG: index [0] out of range in SeqOf.checkIndex, size=0
>
> IGC_Process 20008 1186442964.866360 23:29:24.866 BUG: Stack tracing capability not implemented.
>
> IGC_Process 20008 1186442964.866386 23:29:24.866 BUG: Signal 11 (Segmentation violation) received for dirty shutdown
>
> IGC_Process 20008 1186442964.866463 23:29:24.866 EVENT: Removing process from set

The root cause of this problem is a logic error in the local warning info sampling code that was added in OB7.2. The conditions that trigger the error are not known, however. It only seems to occur with site MAF's customized localization. The crash does not occur with the baseline MAF localization (tested on nmtw). Nor does it seem to occur in OB8.2 (test on nhda). The logic error is still present in OB8.2, however, and could be triggered by some other condition.

One workaround is to not swap out a pane that contains local warnings. Another workaround for MAF may be to revert to the baseline localization.

Problem. Metar2shef translator fails when a MTR report contains a TORNADO. (DR 19347)

The metar2shef translator, which decodes MTR reports and converts the information into SHEF messages for for subsequent processing by the SHEF decoder and posting to the hydro database, is failing when it encounters a MTR report which contains remarks which include the word, TORNADO. The metar2shef translator operates as part of the px1 cron package and runs 4 times an hour.

The failure of the processor has the following consequences: 1) MTR reports are not converted into SHEF and are not posted to the hydro database, which generally manifests itself to the user when s/he creates RTP/STP type products in Riverpro and there is no data to populate the product; 2) the original MTR reports are not deleted from the

/awips/hydroapps/whfs/local/data/metar_input directory, which--depending on how long it lasts--can cause the /awips/hydroapps inode and directory space to fill up.

Once the problem has been identified, the offending MTR report can be deleted from the /awips/hydroapps/whfs/local/data/metar_input directory. The next execution of the metar2shef process should then proceed without failure.

Problem. Small enhancement request: Allow lower case text products in GFE. (DR 19329)

The following is a request from Harry G. at WFO GSP: I am writing to get guidance on possibly opening a ticket/DR on an issue related to using lower case letters in a text product formatted in GFE. Allow me to provide a little background. At a National Weather Service Partner's Meeting in June, Weather Service Headquarters' OCIO and Ross Dickman of Eastern Region Headquarters discussed testing lower case letters in select products. An action item that developed from that meeting is that the Air Quality Alert Message (AQA) will become the first Eastern Region product to be tested using lower case. Mark Mathewson provided us with some guidance on how to allow lower case letters to appear in a product formatted in GFE. (You have to define lowerCase = 1) However, we have since discovered that having lowerCase set to 1 also forces the date string in the product header to always be lower case. You can see in the attached thread of e-mails about this issue that Mark has discovered a simple fix for the Product Editor code:

To allow greater control of case in a product, he suggests that the following lines would need to be removed from nwsTimeStr() in the ProductEditor code:

```
if not self._pdef.get('lowerCase', 0):
    tstr = tstr.upper()
```

Problem. OB7.2 : stopIngest.dx3 fxaAnnounce doesn't show up in GUARDIAN window. (DR 19327)

The notification of the DX3 ingest being stopped does not get sent to the workstations because GUARDIAN uses the CommsRouter COMMS_ROUTER processes on dx3f. Since that stops before the fxaAnnounce process kicks off the message to the workstations, they never get the message that dx3 Ingest has been stopped.

Suggestions are to move the fxaAnnounce to the start of the stopIngest.dx3 script so it notifies that the ingest is going down, rather than when it finished.

Problem. GFE: Issue with the map order in MakeHazard procedure. (DR 19306)

HFO had a problem issuing a tsunami watch using the MakeHazard procedure. One of their land zones was missing when the interface appeared. This zone (Niihau) is a small island considered part of Kauai. The probelm is the way the maps are loaded as part of the procedure. The surrounding Marine zone was essentially covering up Niihau.

The order the maps are loaded in MakeHazard needs to be changed so that the Offshore is first, then Marine, then land (Zones or FIPS). This needs to be changed for Tropical Cyclone, Typhoon, and Marine groups in the procedure.

Problem. International Skew-T Erroneous Data. (DR 19289)

While browsing through the upper air plots of international locations, noticed that many of the skew-T charts from Japan, Australia, and Russia (RAOBs) had random errors in the data. Some of the plots seemed to be accurate but many (~75%) were incorrect. Will L. and I compared the plots in D2D to plots from other internet sources and found large discrepancies. (See attached images of Wajima, Japan) Problem occured in OB8.2, OB8.1, and OB7.2. All plots from North America and most other international locations seemed to be correct. In most cases the error consisted of the plots (T and Td) plotting off the screen to the left. Some similarities (pressure levels at which the errors) occured were noted.

Problem. NWRWAVES: require update to UGClookup.table. (DR 19288)

Las Vegas (VEF) WFO has updated recent UGC/zone changes that they have made locally. NWRWAVES baseline UGClookup.table needs to be updated to reflect these changes. This is a normal routine update to the table since there may be more other WFOs also required similar updates. In the case of VEF office, the following are California zones changes that require update:

Eastern Sierra Slopes Of Inyo County,CA,VEF,P,CAZ519
Owens Valley,CA,VEF,P,CAZ520
White Mountains Of Inyo County,CA,VEF,P,CAZ521
Death Valley National Park,CA,VEF,P,CAZ522
Western Mojave Desert,CA,VEF,P,CAZ523
Morongo Basin,CA,VEF,P,CAZ525
Cadiz Basin,CA,VEF,P,CAZ526
San Bernardino County-Upper Colorado River Valley,CA,VEF,P,CAZ527
Eastern Mojave Desert-Including the Mojave National Preserve,CA,VEF,P,CAZ524

Problem. Small Enhancement: Changes to Rating Curve Storage and Use. (DR 19284)

Currently, RFCs utilize NWSRFS to store rating curves as stage/flow pairs. NWSRFS uses these pairs to determine discharge from observed stages. Once model runs are completed and a forecasted discharge is computed, the same rating curve is used to determine the forecasted stage from the forecasted discharge. NWSRFS use linear, logarithmic, or hydraulic interpolation or extrapolation to determine the stage/discharge relationship when values do not fall on one of the stage-discharge pairs. Of the three techniques, most RFCs use logarithmic interpolation/extrapolation. RFCs also utilize the shifts to make temporary adjustments in rating curves in real-time

The IHFS stores stage/discharge pairs. Applications such as the Site-Specific Model, Time Series Plot, and HydroGen use linear interpolation/extrapolation in the conversion of stages to discharge and vice versa.

Because RFCs use different interpolation methods that the WFOs, problems can arise. The discharge the RFC is using can be different from what the WFO uses and be different from what is displayed to the public on our web pages and AHPS hydrographs.

To alleviate this problem, the IHFS database should store the same rating information as is stored in NWSRFS. This would include the stage/discharge pairs, method of interpolation/extrapolation, and any shifts applied by the RFC. WHFS applications should convert stages to discharges and vice versa using the same algorithms as used by NWSRFS. This would ensure that the same discharge is computed from a given stage in both NWSRFS and the WHFS applications.

WHFS applications and the IHFSDB should be changed to store the necessary information and have the proper algorithms to perform the stage discharge conversion using the following techniques:

- Linear interpolation/extrapolation
- Logarithmic interpolation/extrapolation
- Hydraulic interpolation/extrapolation
- Loop rating curves

Problem. The river stage obs/forecast monitor program. (DR 19274)

Within the hydro software component, there is an application which compares forecast data to observed data. If the difference between observed and forecast data exceeds a user-defined threshold, the user is notified of this deviation.

Currently, if there is forecast data in the hydro database with data values of MISSING (i.e. -9999), the application still uses that data to compare against observed data. As a result, the users are notified of deviations when they should not be. The application currently checks the observed data values to see if they are MISSING, and if so, they are not used in the evaluation. The same check should be done for forecast data. OB7.2

Problem. SynopticDecoder does not correctly decode present weather types. (DR 19266)

A correction needs to be made in the synoptic obs decoder. A forecaster reported: "The AWIPS Synoptic Ob decoder does not correctly decode weather types from the 7 (present weather) group of the synoptic ob. It will correctly decode some weather types (especially the low numbers, i.e. fog, haze, smoke, distant lightning), but the higher numbers (such as the ones for rain, showers, snow, thunderstorms, etc.) do not plot any symbol on the map! This minor problem has existed for a long time, likely ever since the Synoptic Decoder was introduced into AWIPS. This seems like it ought to be an easy fix for whomever is responsible for the Synoptic Ob Decoder at HQ."

Problem. RCS storage bug. (DR 19255)

Kristen Delack/NCF worked with Todd Shobe (ITO-ILN) to determine that the storage logic for Radar RCS products can present a problem if used heavily enough within a volume scan. If several cross sections are created during the same volume scan, only the most recent one will display. This occurs because each new RCS in the same volume scan overwrites the previous one due to the current naming convention of the Cross Section (both RCS and VCS) products. The problem seems to occur when you issue a request for an RCS for a particular baseline, and then move that baseline and request another RCS for the moved baseline, it increments the number.

This incremental counter is not being reset properly after each volume scan. Eventually it reaches 55 and continues to store overtop of the last RCS because the incremental number no longer goes up.

Please see attachment for Kristen's writeup.

Problem. Small enhancement request: Radar x-sections with volume browser. (DR 19253)

Here is the request from Todd Shobe at ILN: We are making radar reflectivity cross sections using the volume browser, and then saving these cross sections as bundles within a procedure. The bundles are saved with a specific vertical coordinate (such as "0-60 kft AGL", or "Log 1050-150") from the drop-down menu at the top-right of the vb. When we load the bundle for later use, it will utilize whatever vertical coordinate is set in the vb, which may not be what was in use at the time the bundle was created. I had the same result with vb cross-sections other than reflectivity as well. We would like to retain the vertical coordinate set when the bundle was created, regardless of what is set in the vb when the bundle is loaded later.

Problem. DE: GRIB2 decoder fails to move undecoded data to 'badGrib2' directory. (DR 19248)

When the Grib2Decoder fails to decode an incoming data file, that file should be moved to the /data/fxa/Grid/SBN/badGrib2 directory. This appears to be happening only on a sporadic basis, with many files apparently being deleted instead of temporarily stored.

This impacts the ability to troubleshoot bad data or decoding problems.

No known workaround.

Problem. Record Event Recorder produces errors when creating a product. (DR 19245)

Cory from MEG called to report a ongoing problem that had been occurring for several months. The problem involves the Record Event Recorder which is supported by MDL. Cory says that whenever they go to create record the record formats incorrectly, he says specifically that he will recieve errors with $ signs in it. He talked to his ITO on occasions about this problem (Steve, who is the point of contact for this problem) and they both believe it has something to do with regards to bad underlying coding.

Problem. Small Enhancement: Add QC check to compute the difference between observations. (DR 19238)

The current automated quality control checks done within the hydrologic software suite are fairly simple: current observed and forecast values are compared with single value thresholds to see if they exceed these threshold values. Also, data values are compared with previous values to compute a rate-of change. The user can define different criteria such that if the data exceeds one set of criteria, it is considered to be of questionable quality, and if it exceeds another set of criteria, it is considered to be of bad quality.

However, in many circumstances, data can fall within the exceedance criteria and be considered good for quality purposes, but when compared to other observed data in the context of a specific event, it is obvious that the data is of bad quality. Unfortunately, this data is not automatically

removed from consideration. As an additional side effect, if the data exceeds a set of alert/alarm criteria, then users will be needlessly notified of this data.

An additional automated quality control check should be implemented with computes a difference between a current observed value and previous values. If this difference exceeds a user-defined difference threshold (in an absolute value sense), the observed data value will be considered bad and will not be available for further use. Also, if the bad data value has exceeded an alert/alarm threshold, the difference check will prevent this data value from being included in the alert/alarm report which notifies the users of critical data.

Problem. Small enhancement request: Addition to Hurricane Local Statement (HLS) in GFE . (DR 19230)

Note: This is an enhancement.

The following is from Scott Kaiser at NWS Hdqtrs: I missed providing a requirement for OSIP project #06-021, segmentation of the Hurricane Local Statement (HLS). 06-021 is slated for OB8.2.

The requirement I failed to include and am now asking to be fixed is to allow the use of (have the option of using) the VTEC significance code of "S" for "statement" when WFOs issue a HLS. Other significance codes are for example "W" for warning and "A" for watch. Use of the "S" code allows for the HLS to be issued when there are no tropical cyclone watches or warnings which is allowed by policy.

The VTEC string would look something like...

O/NEW.KBRO.HU.S.0001.050501T2045Z-050501T2345Z/

Problem. XSETS does not perform quality control on data. (DR 19229)

Julie Meyer reported that when using XSETS to generate the forecast message, it retrieves the latest observed value from the database, but does not do a quality check on the data. So, data that has already been flagged as bad gets into the message.

Impact: Possible incorrect data being released in an official product.

Workaround: Manually edit the product if you can decipher that bad data has been input.

Problem. Problem interpolating sky cover in GFE. (DR 19227)

Dan Baumgardt and Matt Davis at ARX reported that they are having sporadic problems interpolating sky cover in GFE.

Under the GFE tab in GFE, they go to Editing Preferences, then Interpolate Algorithm, select Sky, then select one of the algorithms (problems have occurred with all of the algorithms).

The problem is that the domain moves but the sky cover stays the same.

Matt said that they use this interpolation frequently, and that the problem only occurs every once in a while. He said he thinks it just started occurring since they installed OB7.2.1, but he's not positive.

Johnny Williams tried this out and was able to reproduce the domain moving.

The operational impact is that interpolated sky cover forecasts could possibly be incorrect.

There is no workaround.

Problem. Small enhancement request: XSETS, new feature in fcst progression button request. (DR 19226)

The following is from Julie at KRF: APPS: XSETS, new feature in fcst progression button requested

Description: One of the problems that MBRFC has is that while the fcst progression button allows the user to compare the proposed new forecast to previous forecasts that were issued, it does not allow the user to make adjustments to the proposed new forecast. This enhancement was requested quite a while back shortly after the first release of this AWIPS baseline application.

The recent flooding this past May has just re-enforced that this capability in the AWIPS baseline version is long overdue.

Problem. GW: Inconsistent precision when sampling model terrain. (DR 19215)

When a user displays model terrain (for any gridded model) and samples it, values below 1 km display to a precision of 3 decimal places; above 1 km, the values displayed have a precision of 2 decimal places. An enhancement to have both display to 3 decimal places has been suggested.

Problem. Ignore All doesn't work in GFE spell checker. (DR 19213)

Todd Shobe at ILN reported that the 'Ignore All' function on the spell checker in GFE is not working. I tested it out on NHDA and reproduced the problem. Basically, 'Ignore All' works the same as 'Ignore'. If there is another occurrence of the same word later on, the spell check asks you again about it.

The workaround is to keep hitting 'Ignore' until you get through the text product.

Problem. Small enhancement request: Add option to archive program. (DR 19186)

Here is a small enhancement request that came from Mark Oliver at EWX: "I'd like to add an option to the Archive program for sending the compressed archived data from the AX through the firewall to the local WES pc. We do this fairly frequently when we need quick access to an archived event and don't want to wait on burning a DVD. This method also saves on DVD usage.

“Currently I manually sftp across the firewall but I think a button in the current ArchiveAx.tkl program would be appreciated by all offices."

Problem: Radar products can be lost without any alarm. (DR 19180)

Several previous DRs have modified the way in which RadarMsgHandler presents alert messages to users via Guardian (or the old Announcer). The problems involve balancing timely notification of serious radar problems and avoidance of too many false alarms. It may be possible to find a good balance, but there is still a fundamental problem: AWIPS relies on the RPG to send the initial failure notifications. If thse notification are not sent, there will never be any user-visible alarms. When this happens, it may take too long for forecasters to realize the radar products are not updating.

An alternate approach to the problem is to add "watchdog" functionality to the AWIPS radar ingest system. Rather than wait for an active notification from the RPG, the absence of new data within a given time period would be the trigger for an alarm.

Problem: DE: GFS BUFR MOS: Replace Sky Cover variables. (DR 19166)

Requested from GFS MOS data provider Becky Cosgrove in TT 294960:

We send GFS-based MOS BUFR products with WMO headers JSML30-38 KWNO. These products are also decoded by the BUFR decoder and put into netCDF. The netCDF is used to create at least the MOS depictables. We currently send total sky cover guidance with the following BUFR ids (the 3 columns in the beginning of the line are the BUFR id):

0 60 100 PoTSKYC 0/8 %

0 60 108 PoTSKYC 1/8-2/8 %

0 60 109 PoTSKYC 3/8-4/8 %

0 60 103 PoTSKYC 5/8-7/8 %

0 60 104 PoTSKYC 8/8 %

0 20 11 Sky Cover CAT

it is mapped into something in the netCDF.

We are replacing this guidance with opaque sky cover with the following

BUFR ids:

0 60 181 GFSMOS PoOSKYC CLR

0 60 182 GFSMOS PoOSKYC FEW

0 60 183 GFSMOS PoOSKYC SCT

0 60 184 GFSMOS PoOSKYC BKN

0 60 186 GFSMOS PoOSKYC OVR

0 60 192 GFSMOS OSKYC CAT

The current BUFR table B for these products does not contain these BUFR identifiers. We would like the table B to be updated, and the opaque sky cover guidance "put" in the netCDF files where the total sky cover is currently stored. Then that opaque sky cover would replace the total in any applications that are reading the netCDF files. We would then stop putting the total sky cover guidance in the BUFR products.

Problem: Small enhancement: GFE text formatter change from eastern region. (DR 19162)

The Eastern Region Text Formatter Task Force would like to initiate a Small Enhancement Process regarding GFE formatters which will better assist our regional team in providing GFE text formatter support.

The routine product formatters in GFE all use the baseline-regional-site architecture for product overrides. This is very useful for the regional team to use when certain overrides pertain to all the offices in our region. The problem, however, is that the hazard formatters still rely on the baseline-local method of inheritance. This causes difficulties when regional overrides need to be created, as has occurred with our regional HWO and HLS formatters. In these instances, we need to recreate the entire hierarchy of Text Product and Text Utility files in order to put a regional overrides file in place.

Our request for the Small Enhancement Process is that all text formatters follow the baseline-regional-site convention for Text Product and Text Utility files. If you have any questions about this request, you can reach me in operations at WFO GSP at (864)848-1332, or my voice mail at (864) 848-9970 (x404), or respond to this e-mail address.

Problem: Small enhancement: stop sending MOS products that have been superseded. (DR 19154)

This is a request from Becky Cosgrove at MDL. We determined that it could go through the small enhancement process:

We send GFS-based MOS guidance for 1 to 7 days out in BUFR format. The headers for these products are JSMT60 through JSMT79 KWNO. I know that they are decoded by the BUFR decoder and put into netCDF. I want to stop sending these products because they have been replaced by updated products. I do not know what, if any, applications use this data now that mexwx is gone. So I would like to know if any applications are still using this product.

Problem: AF: msg_stats not displaying data volumes correctly. (DR 19111)

Desired release is OB8.3.

msg_stats is a command line utility invoked mostly by the NCF to troubleshoot problems with MHS.

No trouble ticket as this was noticed by the developers, not by the field or the NCF.

There is no impact to the forecasters or the end users since they generally do not use this utility. The impact is that the missing information can make troubleshooting MHS problems more difficult and time consuming.

There are no workarounds for this problem.

msg_stats is supposed to display average bytes/sec for both incoming and outgoing messages, but does not because the MHS processes do not update the shared memory region as messages are processed. As a result, these values are always displayed as "0". Also, the "current" values displayed are useless. NCF asked to add additional cumulative data for # messages inbound and outbound as well as cumulative byte counts.

Problem: SAFESEAS: Anchor button stuck on Red (Ref. OB8.1.1 DR 18996). (DR 19109)

The Juneau WFO has reported (TT 265700) a constant red color for their SAFESEAS anchor button (formerly on the D-2D pane, now in Guardian). This behavior makes the button unreliable as an alert tool, because forecasters cannot tell whether the button color properly reflects selected SAFESEAS thresholds for wind speed, wave height, and other parameters. Some workarounds, assuming various possible explanations for this behavior, have been tried unsuccessfully over the last few months. The root cause has just been diagnosed as a faulty initialization of certain mesonet parameters -- they proceed through the code with erroneously high values. This behavior could potentially affect the SNOW button as well, since it uses the same code. This DR is listed as "critical" because there is no workaround.

Problem: AF: msg_stats not displaying data volumes correctly. (DR 19111)

Desired release is OB8.3. msg_stats is a command line utility invoked mostly by the NCF to troubleshoot problems with MHS.

Problem: Bug in monthly climate report (CLM) with last year's max 24hr precip. (DR 19107)

Mike D'Angelo at State College PA reported the following problem with the monthly climate product (CLM). He says that he has talked to other offices and they have experienced the same problem.

The problem occurs only when the site decides to include last year's monthly max 24-hour precip. in the report, and only for NWWS.

The report should say something like 1.85 03/02 TO 03/02. Instead, it omits the 1.85 and says 03/02 TO 03/02 three times on successive lines and sometimes puts in garbage characters as well (see attached report). Occasionally the dates are wrong also.

Workaround. Manually edit out the bad data. The operational impact is the added time required for manual editing.

Problem: GFE: No Time Descriptors with Heat Index/Wind Chill. (DR 19104)

When using the mostImportant phrase method, in some cases, no timer phrases are returned when there should be.

For example: using WindChill values/settings of...

-14 for hours 0-3

-9 for hours 3-6

-4 for hours 6-9

± 0 for hours 9-12

[3] for a WindChill resolution

maximum_range_nlValue and minimum_range_nlValue both equal 0

Max and Min range biases are set to "Min"

scalar difference is set to 2

Null value is baseline: -100

MostImportant is set to "Min"

THE RETURNED PHRASE IS...

LOWEST WIND CHILL READINGS OF 14 BELOW ZERO.

AND SHOULD BE...

LOWEST WIND CHILL VALUES OF 14 BELOW ZERO EARLY IN THE MORNING.

The problem appeared to result from the consolidateTrends method.

Workaround. Local overrides.

Problem: Cannot load kdax xsect 3-bit refl (dbz). (DR 19097)

While executing a crawl menus automated script on TBDR, D2D regional scale, the following error message was received.

Cannot load kdax xsect 3-bit refl (dbz) Depictor file: kdax radar xsect is not valid.

This message also applied to kcri, kryx, kmux, and kntx radars

This may be able to be tested prior to 6/14 if a test bed is used to issue a TS or HU hazard via the CWF then push the system clock forward 15 days.

Problem: GFSLAMP ingest directory not set up for purging. (DR 19083)

Site PTR, which is an RFC, reported that since the OB7.2 upgrade their directory /data/fxa/ispan/bufr/GFSLAMP has been filling up with data files. Other directories under /data/fxa/ispan/bufr are set up in purgeInfo.txt so that only 100 files are kept. For RFC's, the fact that /data/fxa/ispan/bufr/GFSLAMP is not purged is a particular problem because RFC's do not run the BufrMosDecoder, which would read and then remove the data from this directory.

4Workaround. Change acq_patterns.txt, commenting out the line for /ispan/bufr/GFSLAMP so that the product will not be ingested, since RFC's neither decode nor use this data.

Problem: XSETS "make forecast" Results Causing Confusion. (DR 19078)

Over the past few weeks, minor to record flooding has occurred in the Missouri Basin. During that time, the RFC forecast generation program XSETS was not able to correctly identify the river crests in the forecast time series. This problem caused considerable delays in the issuance of RFC and consequently WFO products. This was due to the fact that each forecast product had to carefully reviewed and manually edited to ensure that the crest statement was accurate. Here are the four basic types of problems connected with the .A crest line that occurred, although there were many variations on some of these that occurred.

1. no .A crest line generated when there definitely should have been one.
2. has a .A crest line but it is not the crest.
3. multiple .A crest lines ... some of these crest lines were outside the time constants of the forecast time series contained in the RFC product.
4. has a .A crest line when the forecast time series clearly indicates it is falling.

Problem: Flood Time Series Report doesn't consider locations which report flow. (DR 19071)

One of the utility programs in the hydro software is a program--called floodseq--which analyzes observed river data and compares observations to flood stage. Observed values which are greater than flood stage are copied to a separate table in the hydro database to create flood time series. These flood time series are then used by the Service Hydrologist and Hydro Focal Point to construct required monthly reports on hydrologic conditions in the HSA.

Currently, the floodseq utility program only considers locations which report observed river values whose SHEF Physical Element begins with H (e.g. HG - river stage, HP - pool elevation).

Locations which report discharge or flow--which are reported with a SHEF Physical Element which begins with Q--are not evaluated by the floodseq utility program. As a result, flood time series are not created for these discharge locations, and Service Hydrologists and Hydrologic Focal Points are unable to fully report on flooding events in their HSA.

Problem: Error message about buoys unnecessarily pops up in LSR for inland sites. (DR 19069)

When MAF opens their local storm report (LSR) application, they get a message: "Alert. Could not get the buoy list using the Buoy/CMAN location." We have determined that it's because they don't have the file

/awips/fxa/data/localizationDataSets/FWD/wwa_marine.gelt.

We tried removing the file at NHDA as site LWX (a coastal site), and then got the same error message.

It seems that sites with a coastline should need this file, but apparently LSR checks all sites for it.

We checked with Qinglu Lin who has experience with localizations. He looked for us, and determined that the localization scripts do not install that file for non-coastal sites. It does give the file to coastal sites. Most of the non-coastal sites may be getting this message.

We checked at FWD, they do not have the file and are getting the message.

The bug fix would be to change LSR so that it does not check for the wwa_marine.gelt file for non-coastal sites.

The operational impact is that an error message displays every time the LSR application is started. This has no impact on using LSR or creating storm reports.

Workaround. None.

Problem: Small enhancement request - add options in climate for NWR. (DR 19067)

Note the Site Description, "PORTLAND WFO", is incorrect. That was the only option available in Dimensions when I selected "GYX" as the Site/Location. It should be GRAY WFO (Gray ME).

In climate the climate main GUI under 'Setup/Edit Climate Products', if any of the products (any of the daily ones, the monthly, seasonal, annual) is selected, for NWR, some of the choices are grayed out. Those same choices are not grayed out when NWWS is selected.

It would be helpful to allow the user to select those choices that are grayed out, in case for the WFO would like them played on NWR (Tom Berman at GYX would like last year's heating and cooling degree days on the NWR).

The choices that are grayed out are:

> Under Temperature, Last Year's Maximum, Last Year's Minimum, Last Year's Mean.
>
> Under Precipitation, Last Year's.
>
> Under Snowfall, Last Year's.
>
> Under Degree Days, Last Year's Normal Heating Degree Days, Last Year's Heating Degree Days, Last Year's Normal Cooling Degree Days, Last Year's Cooling Degree Days.

Problem: GFE grid editing problem. (DR 19055)

Bob Stauber at PHI reported a grid editing problem with GFE. He said it has occurred several times off and on over the last few months, but they haven't called NCF about it until now.

The problem is that they have GFE open on both lx3 and lx4. The forecaster on lx4 had their marine group open while on lx3 the public group was open.

The forecaster on lx3 populated his winds, and this caused the MaxT grids on lx4 to change. The forecaster on lx4 went into Break Locks and saw ownership of Max T by the forecaster on lx3. The forecaster on lx4 had to break the locks to clear the ownership.

Operational Impact. This is a major annoyance, and if the forecasters do not notice that grids have been changed, it could result in a forecast going out that's not as the forecasters thought it was.

Workaround. After it has occurred, break the locks and redo grids back to the way they were before they were changed.

Problem: GFE: FWF has repeating 24hr trend lines and jumbled phrases. (DR 19046)

First issue from TT 289099 from PDT:

Our land management season (PDT) began last week, and immediately we noticed some strange behavior with the RH trends. We are currently using the LM formatter which is just a derivation of the FWF formatter. First, we occasionally see this problem:

.TONIGHT...

SKY/WEATHER.....PARTLY CLOUDY.

MIN TEMPERATURE.....21-26.

24 HR TREND.....6 DEGREES DOWN.

24 HR TREND.....

24 HR TREND.....

24 HR TREND.....

24 HR TREND.....LITTLE CHANGE.

MAX HUMIDITY.....88-93 PERCENT.

HUMIDITY RECOVERY.....EXCELLENT.

Note the repeating 24 HOUR TREND lines. There should ONLY be two 24 HOUR TREND lines mentioned per period (i.e. one line for Temperature trends and one line for HUMIDITY trends).

The problem was traced to the consolidation of local effect phrases.

Workaround. Local overrides.

Problem: Batch Version of Riverpro fails when missing product content files. (DR 19035)

In its initial implementations, Riverpro used to require the existence of 4 product content control files in the /awips/hydroapps/whfs/local/data/app/riverpro directory: flw_def.pcc.CCC, fls_def.pcc.CCC, flt_def.pcc.CCC, and rvs_def.pcc.CCC, where CCC is the site's 3 character id. If any of these four files were missing, the application would fail to launch. Over time, the flt_def.pcc.CCC file has become obsolete, and the graphical version of the application has been modified to not crash if any of the remaining three files does not exist.

Many offices use the batch version of the application to create routine data products. These products are created and issued as part of a local cron defintion and do not require any user interaction. However, the batch version of the application still requires the existence of all three files. If any one of them does not exist, then the batch version of the application will fail to

function. The batch version of the application should be modified to behave as the graphical version does.

Problem: Small Enhancement: Add ability for user to easily define VTEC Times in Riverpro. (DR 19034)

The Riverpro application derives the times which appear in the P-VTEC and H-VTEC lines of a product by analyzing observed and forecast river data to determine when the river rises above flood stage, crests, and falls below flood stage. Users would like the ability to have the option to change one or more of these times via a graphical user interface. Specifically:

Within Riverpro, the user will have the option to select individual forecast points and display a time series of observed and forecast data for those locations, as well as a graphical user interface which allows the user to manually define any one of the 5 VTEC times: 1) P-VTEC Event Begin Time, 2) P-VTEC Event End Time, 3) H-VTEC Rise Above Flood Stage Time, 4) H-VTEC Flood Crest Time, and 5) H-VTEC Fall Below Flood Stage Time. When the user manually defines any of the VTEC times via this interface, the Riverpro product creation software will implement these times in the VTEC coding of the product in place of the recommended times analytically derived by the application. Upon product issuance, these user-defined times will be written to the database as the appropriate VTEC times for that location

Problem: Small Enhancement: Add information to hydro database on observation frequencies. (DR 19033)

The hydro database and the HydroBase application need to be modified to be able to store information regarding how frequently observed data is reported. Specifically:

1. Add the ability to define the observation frequency of observed data elements to the IHFS database. This capability needs to take into account those observed data element which are reported by a user on an infrequent (e.g. event-based) basis.

2. Add the ability to identify if the location receives random reports in addition to the defined observation frequency.

3. Provide the user the ability to manage observation frequency information via the Hydrobase application.

Problem: Small enhancement: update textws to maintain proper indentation in warnings. (DR 19032)

Warnings have an indention throughout due to the bulletted format. But when the automatically generated text is edited, sites lose the formatting. The warning forecaster then spends time reformatting so as not to cause any possible dissemination issues. This cuts into a warning' lead time.

A text workstation enhancement is requested so that short-duration warnings are auto indented when they contain bulleted paragraphs. A local app exists which does this, but that functionality is needed in the baseline. The app is called textws_enhancement and a 7.2 package exists. The only documentation is from an older version and can be found at http://140.90.90.253/~applications/LAD/data/1462/PJ_textOptions.README.

Problem: Guardian: shotgun popup messages (log too big). (DR 19015)

Something is sending thousands of pop-up messages to Guardian. It was suggested that that source of the messages be fixed, but that does not seem to be happening, so guardian needs to insulate itself from such situations. The result is, a Guardian session that gets hung, hogs CPU, and has to be manually killed. The solution is to cap the number of messages that can be stored in the pop-up log. Other logs get capped, but the popup log was not. The down side to this is, there is the potential to lose popup messages from the log, but this is likely an acceptable price to pay. Hopefully, this will be accepted into OB8.2. Level of effort is expected to be <1 day.

Problem: Small Enhancement: Provide user ability to order data for time series display. (DR 19013)

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 is 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.

Problem: In climate F6, min. MSLP for month is incorrect. (DR 19009)

Todd Shobe at ILN reported that the minimum MSLP for the month in the climate F6 station is showing the same minimum MSLP for KDAY (Dayton) and KCMH (Columbus) as it is for KILN (Cincinnati).

He has checked the minimum pressures reported in the product for the month versus the actual values, and found that Cincinnati's minimum pressure is correct, but Dayton and Columbus should have different values, not the same as Cincinnati's.

I looked at the climate F6 products for several other WFOs, and noticed that they were also getting the same listed minimum MSLP for the month at each of their climate sites. It seems that there is a bug in the software that is putting the minimum MSLP from one of a WFO's climate sites onto the other sites.

The operational impact is that the climate F6 product has incorrect data.

Workaround. Manually edit the product after it's been produced.

Problem: Small Enhancement: Adjustment to the Marine Zone listing in WarnGen. (DR 19008)

The OS Marine Program will be making the following policy change, which will impact the WarnGen program:

When multiple marine zones are covered by an SMW or MWS, the formatter should list only the location points at the far ends of the combined zones, and eliminate the intermediate points. We would also like the formatter to list the zones in the numerical order of the associated UGC

codes. Also, the Text WarnGen QC for matching up the number of UGCs with the number of counties/zones listed needs to be eliminated for the SMW, the follow-up MWS and the stand-alone MWS. Otherwise, forecasters will receive false QC errors.

Problem: QCSHIFT mod get strange behavior in IFP. (DR 19004)

QCSHIFT mod:

1. Call up the M19 fgroup in IFP and navigate to the MUSI4 segment.
2. There are three plots in the segment. The second is a plot of discharges from ILNI2 which is Lock and Dam 16 on the Mississippi River. The third plot is for the city of Muscatine along the Mississippi River.
3. The following mod is in the M19 mod file:

   .QCSHIFT 02170718Z   0530

   MUSI4 3.98 44419. / ILNI2 $ RICOE 03/07/07
4. The mod should only be applied to the second plot which uses the ILNI2 rating. However, it also seems to be applied to the MUSI4 data in the third plot.
5. To make matters more confusing...If we comment out the QCSHIFT mod, rerun the segment, uncomment the mod, and rerun the segment again, then the mod appears to only be applied to the second plot as it should.

Problem: boxstats_cleanlogs cron missing on servers. (DR 18999)

The boxstats_cleanlogs script is no longer functioning and cleaning the /usr/local/perfdat/ directory when it is run via cron daily.

Solution: line 18 of the script should be changed from:

```
$numberoffilesnow = `ls -al /usr/local/perfdat | grep "top.out" -c`;
```

to

```
$numberoffilesnow = `ls -al /usr/local/perfdat/ | grep "top.out" -c`;
```

This problem seems to have started with the OB7.1 install, and is due to the fact /usr/local/perfdat is now a link to perfdat-1.0, and doing ls -al on the link will yield only the link, and not the contents of the directory it references.

Workaround. NCF has access to a fixed script that they can push to, and execute on, a device whose /usr directory has reached 90% and alarmed at the NCF.

Impact: If a site's /usr partition should reach 100%, programs that access this directory could cease to function. The probability of this occurring is very low, considering that the NCF monitoring and that no live data is housed in this partition.

Problem: Snowdepth is -1 instead of T in Climate F6. (DR 18997)

The climate F6 program displays '-1' for the maximum snowdepth in the month, if the max snowdepth was a trace, instead of 'T'.

This bug was fixed with DR 17019 in OB7.2. However, after some investigation, it appears that the fix was overwritten in the codeset by code for another change to the F6 program.

The fix in DR 17019 needs to be put in c_build_f6.c again.

The operational impact is that in the GREATEST DEPTH section of the PRECIPITATION DATA part of the F6 climate product, if the greatest depth of snow for the month was a trace, it will say -1 instead of T.

Workaround. Manually edit the product after it is produced.

Problem: Missing Some Frames of GOES High Density Winds. (DR 18993)

Hidensity wind been test in lx1-napo, we had the same problem as ARX reported.

In /data/fxa/point/HDW/netcdf:

ls -rlt 20070506_1*

-rwxrwxr-x 1 fxa fxalpha 22744 May 6 12:24 20070506_1000

-rwxrwxr-x 1 fxa fxalpha 2840140 May 6 12:34 20070506_1100

-rwxrwxr-x 1 fxa fxalpha 2826856 May 6 15:34 20070506_1400

-rwxrwxr-x 1 fxa fxalpha 37756 May 6 18:24 20070506_1600

-rwxrwxr-x 1 fxa fxalpha 2057572 May 6 18:34 20070506_1700

Compare:

20070506_1600 (no wind display, 279 records)

20070506_1700 (wind display normally,18999 records)

Raw bufr data been examined, some of the data did not been stored into netcdf. We need to trace the problem into bufrDriver.

Problem: Small Enhancement: Time Series to Display Height and Flow Values at top of graph. (DR 18991)

When the user selects to display river stage data (i.e. those data whose SHEF Physical Element begins with H), the graphical time series will also plot a corresponding discharge scale on the right hand y-axis if a rating curve is defined for the location. When the user moves the mouse cursor over the time series plot, a readout will be displayed at the top of the graph, showing the stage data value and observed time based on the placement of the mouse. In cases where a rating curve exists, and a corresponding discharge scale has been plotted, this readout at the top of the graph should also display the corresponding discharge value in addition to the river stage value.

The reverse behavior is also desired--if discharge is plotted, and a rating curve exists allowing a corresponding stage scale to be plotted, the readout should show both discharge and stage.

Problem: Small Enhancement: Enable User Control over language in Alert/Alarm Messages. (DR 18990)

The alert/alarm functionality with the OHD Common software generates a text message which is posted to the text database. This message contains information regarding locations which have exceeded alert and/or alarm thresholds for various data elements. The message is pre-formatted. Users would like the ability to control and modify the language which is included in these text messages.

Problem: Small Enhancement: Modify Editing Capabilities of HydroBase Flood Report Feature. (DR 18989)

Within the Hydrobase application, the user has the ability to display Flood Report information in both a graphical and tabular format. The Flood Report information is made up of separate flood events. Each event contains individual observations of river stage/discharge. Currently, users cannot delete individual observations within a given flood event; they can only delete flood events. Also, users can only delete 1 flood event at a time.

Users should be able to delete individual observations within a flood event and have the application recompute rise above flood stage time, flood crest time, and fall below flood stage time based on the deletion of individual observations.

Also, users should be able to delete more than one flood event at a time.

Problem: Small Enhancement: Add arithmetic operations to Riverpro. (DR 18987)

Riverpro currently retrieves information from the IHFS database and inserts into a product via a variable substitution methodology implemented in Riverpro templates.

There is a need to allow for simple arithmetic operations in Riverpro templates. Users should be able to construct addition, subtraction, multiplication, and division operations within Riverpro templates. These operations will be peformed on either a set of variables or a combination of variables and defined values.

Problem: Small Enhcancement: Allow users to configure Hydroview font size. (DR 18986)

The Hydroview application allows the user to modify the font size of the display icons and corresponding data. However, the user must go to a menu and select the font size to be used. When Hydroview starts up, the font size used is predetermined by the application.

The user should be able to configure the application so that the user-selected font size is used upon application start up (for example, an .Apps_defaults token could be used to facilitate this). Also, the user should be able to define the font size as one of the attributes in the Hydroview Point Data Preset definitions.

Problem: HydroGen rounds Gage Zero value to tenths of a foot. (DR 18985)

The current HydroGen application retrieves the Gage Zero, or zero datum, value from the zd field of the rivertstat table in the IHFS database. The data in the zd field is often specified to hundredths of a foot. However, the HydroGen application rounds this value to the nearest tenth of a foot. HydroGen should retrieve the data as it stored in the database and do no rounding.

Problem: Small enhancement request: Add -V option to GFE for runProcedure. (DR 18978)

Fred McMullen at RLX is requesting that the -V option be added to /awips/GFESuite/primary/bin/runProcedure.

The option allows focal points to run GFE procedures from a cron with different options other than what the GFE procedure defaults too. For instance...

./runProcedure SevereWx -V " 'CAPE', '1000'"

This allows the GFE procedure to run with a CAPE of 1000 instead of the default of 500.

Problem: Small enhancement request: Add PIL for seasonal and annual Climate. (DR 18975)

Cindy Scott at VUY sent in the following small enhancement request:

Here's the basic requirement. The AWIPS climate program currently has the option of making "seasonal" and "annual" summary products and the product PIL is currently hardwired to have these products issued with a CLM PIL. This actually is a violation of the current 10-1004 policy (see page 8). Per this directive, in ER we've created specific PILs for the seasonal, annual summaries, and we've also created a quarterly summary PIL (CLS,CLA,CLQ respectively - approved in DRG #10516 on 4/10/2007). The others regions have indicated they will also be creating these additional climate PILS.

Problem: GFE: Same words removed from second phrase in FWF product. (DR 18964)

Second problem from TT 289099:

Our land management season (PDT) began last week, and immediately we noticed some strange behavior with the RH trends. We are currently using the LM formatter which is just a derivation of the FWF formatter. We occasionally see dropped phrases. The dropped phrase ONLY occurs when the returned phrase should be "LITTLE CHANGE" in the HUMIDITY trends. The LITTLE CHANGE phrase gets returned correctly most of the time; however, it randomly is missing in at least one random zone per update. Here's an example:

.WEDNESDAY...

SKY/WEATHER.....PARTLY CLOUDY.

MAX TEMPERATURE.....44-52...EXCEPT 39-44 RIDGES.

24 HR TREND.....LITTLE CHANGE.

MIN HUMIDITY.....39-50 PERCENT.

24 HR TREND.....

20-FOOT WINDS.....

VALLEYS/LWR SLOPES...SOUTH WINDS 2 TO 5 MPH.

RIDGES/UPR SLOPES....SOUTH WINDS 5 TO 8 MPH.

CWR.....0 PERCENT.

Note the missing 24 HR TREND for MIN HUMIDITY.

The missing words for Max/Min Humidity results from the consolidation of sub-phrases.

Workaround. Site overrides or editing of formatter output

No third-party software involved.

Problem: Progress bar doesn't appear in service backup. (DR: 18959)

The progress bar does not come up during service backup at many sites because 'PYTHONHOME' is not listed as one of the environment variables in /awips/adapt/ifps/bin/hp/ifps-main.env.

Because of differences in configurations, some sites may get the progress bar even without having PYTHONHOME listed as an environment variable (this is the case at TBDW, the Raytheon testbeds).

The operational impact is that it's not clear during service backup what the progress is.

Workaround. Add 'PYTHONHOME' as an environment variable.

This DR is not based on a current trouble ticket.

Problem: AF: acq_goesdesc utility displaying "valid date" field wrong. (DR 18958)

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.

Operational Impact. None.

Workaround. None, except for code fix.

Problem: No PostagreSQL log file on RFC Archive Server. (DR 18949)

Currently, on the RFC Archive Server (RAX) the transaction log for PostgreSQL is written to the System Log File. With time this has made providing support for the RAX more tedious as the complexity of the database issues have increased. I would like to recommend that the PostgreSQL Transaction Log be written to its own file in a fashion similiar to the set up for the IHFS PostgreSQL database.

Problem: The NWSRFS Operations STAGEREV and ADJUST-H Not Working Within ESP. (DR 18932)

Recently, NWRFC changed the definition of their BFEI1 river forecast segment, replacing the LOOKUP3 operation with a FLDWAV operation in order to more accurately forecast the backwater affected stages at BFEI1. Along with using the FLDWAV operation they also included the STAGEREV and ADJUST-H operations to allow real-time multi-stage adjustments to the stage simulation. This has worked effectively within OFS. However, when they attempted to ran ESP with this new segment definition, the new segment does not run to completion and ESP crashes.

Upon redefining the segment with the FLDWAV operation but without the STAGEREV and ADJUST-H operations, the segment runs to completion within the ESP run. However, this results in extended water supply forecasts - utilized by other federal agencies - that are not as accurate as expected.

Note: Both OFS and ESP are part of NWSRFS. All operations in OFS are expected to work in ESP.

Problem: IFP Snow JAVA Display Not Plotting 6 Hour Data. (DR 18927)

NCRFC (MSR) has discovered that the JAVA display for snow data in the IFP (part of NWSRFS) displays a single value per 24 hours. The display should show one value per six hours - which is the incremental time step of the hydrolgic models.

Thus, the forecaster is not able to correlate the data display with the data within the model. Which makes the display, to a hydrologic forecaster, of very little value.

Workaround. None.

Problem: OB8.2: Guam: Climate product still says LST (Ref OB8.1 DR 18744). (DR 18925)

The Morning Climate Product includes the time stamp CHST at the header of the product once the NWWS report is created, however towards the end of the product, next to sunrise/sunset time it still says LST instead of CHST. The fix will require some major code changes.

Contact person: Darnell.Early@noaa.gov

Problem: ofsshef Not Correctly Calculating Flow in CMS. (DR 18921)

ofsshef does not properly format flow data in CMS. ofsshef is being used to support data transfer for the CHPS/FEWS pilot project with Delft. Extensive editing of a new shef product by a forecaster, is required to input the correct values. This workaround is very tedious and time consuming.

Upon examining the source code, it was found that at line 600, flows are being divided by 1000 for both CFS and CMS units. The SHEF format for flow timeseries is in KCFS or CMS units (not KCMS). CMS and CMSD should not be divided by 1000, and it would be desirable to have output to 3 decimal places for flow data in CMS.

Problem: SAC-SMA Display Window not display accurate dates, data and FGIX Plot. (DR 18920)

NCRFC (MSR) has discovered the following problems with the SAC-SMA JAVA display in IFP:

1. The dates and time are not visible at the bottom anymore.
2. Data displayed should be one value per six hours - but it appears to be a single value per 24 hours
3. The FGIX (frozen ground) plot does not display any relative data. The FGIX variable doesn't have a maximum value like the other SAC-SMA variables. It starts at zero at the beginning of the winter and gets more and more negative as the cold weather persists. The value of the FGIX variable for the segment being viewed in this image is actually about -34, but you can't determine that from the display.

Thus, the forecaster is not able to correlate the data display with any particular date, nor does the display show the values of the FGIX.

There are no workarounds

Problem: Correct D-2D displays of RAOB soundings to accommodate up to 150 levels. (DR 18909)

The D-2D Skew-T display uses RAOB sounding data from MicroART and RRS (the Radiosonde Replacement System), via the TUABUFR encoder and the RAOB BUFR decoder. RRS has higher data resolution and produces additional “significant” levels in the BUFR encoding. In particular, the TTBB or TempB product now includes up to 135 levels.

Both the RAOB BUFR decoder and the Skew-T display are apparently limited to 75 significant levels. Both need to be upgraded to handle 135 levels in TempB. Note: the Skew-T program merges the TempA plus TempB products for display, so the Skew-T upgrade needs to enable displaying a merged total of up to 150 levels.

Other AWIPS products that may be affected or may need similar RAOB upgrades are:

* Interactive Skew-T extension,

* Plan View Plots,

* IGC to display data in Volume Browser, and

* the model sounding displays.

Problem: IGC: Disable the capability of moving storm centroid with middle mouse button. (DR 18905)

While preparing the WarnGen SVS product in March 29, 2007, two users in GLD were unable to update the location of the storm when trying to drag the dot (storm centroid) to where the storms current locations was, it wouldn't hold. The dot would just go right back to its previous location.

The fact is the users mistakenly used the middle (instead of the left) mouse button to move the storm centroid when preparing the SVS product in the heat of battle. Although the problem was user error, Jim Ramer's recommend to have fix to it so the software does not allow this error.

The error delayed the issuance of followup SVS statements for tornado warnings for that particular case, but can also delay the issurance of other WarnGen followups.

Workaround. None.

Problem: Guardian: Need distinctive sounds for different radar product alerts. (DR 18900)

Kevin Woodworth has recently discovered that when the MD and TVS products reach the threshold that they have set at their RPG, they no longer get the distinctive alarms that they have set up for each product. Kevin believes that this is going to be a very large problem come severe weather season. As it stands right now, you can only set one sound for each priority and he would like to be able to have different sounds to differentiate the two products.

Workaround. None known.

Problem: GW: Incorrect display units for Snow Depth and Water Equivalent. (DR 18899)

ARX reported two problems with the D-2D display which was put into TT 288316. The problems described were verified on NAPO:

The Snow Depth and Water Equivalent Snow Depth guidance from NAM and RUC model data via the SBN are displayed with incorrect units on the D2D. These two fields are either misleading to forecasters or do not display via D2D (but do load) in the current baseline.

1. Snow Depth field: SnD, units are improper (code assumes it is in mm). Available via NAM12.

   Fix:

   nationalData/contourStyle.rules entry:

   * SAcc, SSAcc, SnD, Surface

   in | .03937 | 0 | 4 | | |..|8000F0FF| | 16 | \

   0.1 0.5 1 1.5 2 3 4 6 8 10 12 15 20 30 40 50

should be:

   * SAcc, SSAcc, Surface

   in | .03937 | 0 | 4 | | |..|8000F0FF| | 16 | \

   0.1 0.5 1 1.5 2 3 4 6 8 10 12 15 20 30 40 50

   * SnD, Surface

   in | 25.4 | 0 | 4 | | |..|8000F0FF| | 16 | \

0.1 0.5 1 1.5 2 3 4 6 8 10 12 15 20 30 40 50

/nationalData/gridImageStyle.rules entry:

* SAcc, SSAcc, SnD, Surface

in | .03937 | 0 | .05 | 50 |x|,c| 29 | 6 | 0.1 0.3 1 3 10 30

should be:

* SAcc, SSAcc, Surface

in | .03937 | 0 | .05 | 50 |x|,c| 29 | 6 | 0.1 0.3 1 3 10 30

* SnD, Surface

in | 25.4 | 0 | .05 | 50 |x|,c| 29 | 6 | 0.1 0.3 1 3 10 30

2. Water Equivalent Snow Depth, WEASD, needs an entry in the rules files to correct the units. Currently stated as units of meters but it is mm I believe. Again, NAM12 can be used to test.

in nationalData/contourStyle.rules:

* WEASD, Surface

in | 0.03937 | 0 | 4 | | |..|8000F0FF| | 16 | \

0.1 0.5 1 1.5 2 3 4 6 8 10 12 15 20 30 40 50

and in nationalData/gridImageStyle.rules:

* WEASD, Surface

in | 0.03937| 0 | .05 | 50 |x|,c| 29 | 6 | 0.1 0.3 1 3 10 30

Workaround. Site makes above changes and relocalizes.

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The Snow Depth and Water Equivalent Snow Depth guidance from NAM and RUC model data via the SBN are displayed with incorrect units on the D2D. These two fields are either misleading to forecasters or do not display via D2D (but do load) in the current baseline.

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0.1 0.5 1 1.5 2 3 4 6 8 10 12 15 20 30 40 50

should be:

* SAcc, SSAcc, Surface
in | .03937 | 0 | 4 | | |..|8000F0FF| | 16 | \
0.1 0.5 1 1.5 2 3 4 6 8 10 12 15 20 30 40 50
* SnD, Surface
in | 25.4 | 0 | 4 | | |..|8000F0FF| | 16 | \
0.1 0.5 1 1.5 2 3 4 6 8 10 12 15 20 30 40 50

/nationalData/gridImageStyle.rules entry:

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in | .03937 | 0 | .05 | 50 |x|,c| 29 | 6 | 0.1 0.3 1 3 10 30
should be:
* SAcc, SSAcc, Surface
in | .03937 | 0 | .05 | 50 |x|,c| 29 | 6 | 0.1 0.3 1 3 10 30
* SnD, Surface
in | 25.4 | 0 | .05 | 50 |x|,c| 29 | 6 | 0.1 0.3 1 3 10 30

2. Water Equivalent Snow Depth, WEASD, needs an entry in the rules files to correct the units. Currently stated as units of meters but it is mm I believe. Again, NAM12 can be used to test.

   in nationalData/contourStyle.rules:

   * WEASD, Surface
   in | 0.03937 | 0 | 4 | | |..|8000F0FF| | 16 | \
   0.1 0.5 1 1.5 2 3 4 6 8 10 12 15 20 30 40 50

   and in nationalData/gridImageStyle.rules:

   * WEASD, Surface
   in | 0.03937| 0 | .05 | 50 |x|,c| 29 | 6 | 0.1 0.3 1 3 10 30

Workaround. Site makes above changes and relocalizes.

Problem: GFE: issue with embedded visibility phrase. (DR 18894)

Thomas Spriggs' email from the ticket description:

(2) Second problem: the text string " WITH " is missing when using these parameters (this is not set by default in the baseline_ZFP formatter but are baseline and supported):

embedded_visibility_flag set to "1"

visibility_wx_threshold set to "2"

I also have this in the PoP/Wx elements for Tonight:

6pm-12am: 10 PoP / NoWx

2am-6am: 10 PoP / Wide 1/4SM F+

I get this output in my ZFP formatter:

WIDESPREAD DENSE FOGVISIBILITY ONE QUARTER MILE OR LESS AT TIMES AFTER MIDNIGHT.

It should be outputting:

WIDESPREAD DENSE FOG WITH VISIBILITY ONE QUARTER MILE OR LESS AT TIME AFTER MIDNIGHT.

I was able to trace this back to the addEmbeddedVisibility (WxPhrases) to 3 lines before the end where it reads:

```
if words != "" and sigFlag != 0:

visWords = " with " + visWords
```

For some reason this changed between OB7.1 and OB7.2--not sure why. It simply does not work as designed with this code like it is. When I change it to what it was in OB7.1, it works:

```
if words != "":

visWords = " with" + visWords
```

Workaround. Editing of formatter output or region/site overrides.

No-third party software involved.

Problem. GFE: no timer phrases with thunderstorm attributes. (DR 18893)

Thomas Spriggs' email from the ticket description:

(1) First problem: no timer phrases with thunderstorm attributes when given a specific situation.

If I have this in the PoP/Wx elements for Tonight:

6pm-12am: 60 PoP / Lkly TRWm GW,SmA

12am-6am: 60 PoP / Lkly TRWm

I get this output on the Baseline_ZFP:

THUNDERSTORMS LIKELY. STORMS MAY PRODUCE GUSTY WINDS AND SMALL HAIL.

Unlike any other weather issue, there is no timer phrase associated with the thunderstorm (T) attributes. Ideally I want this output:

THUNDERSTORMS LIKELY. STORMS MAY PRODUCE GUSTY WINDS AND SMALL HAIL IN THE EVENING.

For some reason, I was able to trace this back to when it consolidates coverages through checkWeatherSimilarity (PhraseBuilder) and similarCoverageLists (WxPhrases). When it finds like coverages, it will remove the time information from the thunderstorm attributes. When different coverages (e.g. Sct and Lkly) are used, it preserves the timing, and I get correct output. For instance, this produces correct output because the coverages are not the same:

6pm-12am: 60 PoP / Lkly TRWm GW,SmA

12am-6am: 60 PoP / Chc TRWm

Workarounds: Overrides or editing of formatter output.

No third-party software involved.

Problem: Data Monitor: Clean up typos. (DR 18892)

There are a number of typos in the Data Monitor configuration files:

1. grid.cfg - Change GRID130RUC13.html to GRID130RUC.html. This typo causes the information page for RUC13 not to load when the yellow note icon is clicked.

   Workaround. Site makes the above change to px1:/awips/fxa/data/grid.cfg

2. REG182OPCWave.html - Change "24 hours old" to "12 hours old"; change "48 hours old" to "24 hours old". These changes will reflect, on the information page, the actual ages at which alerts start to appear if this data is not being received on time.

   Workaround. Site makes above change to px1:/data/fxa/data/htdocs/dataMon/infoPages/REG182OPCWave.html

3. NDFDRTMA.html - Change "1 hours" to "1 hour" - low-impact typo

4. GRID130RUC.html - Change "2 hour" to "2 hours" - low-impact typo

Problem: problem with hmMonitor Server - climate doesn't always alarm. (DR 18881)

At site LMK, the climate fails to alarm for the afternoon climate to let the forecasters know it's time to run the climate. The hmMonitor server is responsible for generating this alarm. The alarm works for the the other two daily climate runs.

Workarounds. One workaround at LMK is to set an alarm outside of AWIPS that tells the forecasters it's time to run climate.

Another workaround is to restart the hm Monitor server. Climate will alarm sometimes for a few days again, before it starts failing to alarm again.

I believe I recall hearing of this problem at another site in the past, but currently LMK is the only site reporting the problem.

I haven't been able to reproduce the problem on a test system.

Problem: In LSR, incorrect hail size shown as default. (DR 18880)

In the LSR GUI, it is possible to set a default value for the fields (ex. trained spotter), event type (ex. hail) and hail magnitude (ex. 1/4" pea, 1/2" penny) by right clicking on the desired type in the drop-down menu.

If defaults are set by right-clicking, when an event report is saved, the new blank event report will have the selected default values already set. The problem is that for hail magnitude, no matter which default is set, the printed report will list 1/4" pea.

The workaround is to go into the drop-down menu and select the desired hail magnitude by left-clicking.

A major issue is that reports for pea size hail can be issued unknowingly - it will say penny size hail in the drop-down menu of the GUI if that has been defaulted earlier, but the report will be issued for pea size hail if the size is not explicitly chosen by left-clicking in the drop down.

Eric Lenning at LSX says that this problem has caused quite a few incorrect LSRs to go out that had to be corrected.

I was able to reproduce the problem on the NHDA test system.

Problem: Small enhancement: modify auto word-wrap in GFE product editor. (DR 18876)

The GFE product editor needs to be changed so the auto word wrapping function recognizes "&&" and "$$" strings as paragraph delimiters. NWS Directives require formatting using "&&" as a separator without a preceding blank line:

> SHORT TERM /TONIGHT THROUGH WEDNESDAY/...
>
> HIGH PRESSURE OVER THE SOUTHEASTERN U.S. WILL MOVE TOWARD THE MID-ATLANTIC TONIGHT AND MOVE OFF THE COAST TUESDAY...WHILE A WARM FRONT REMAINS TO OUR NORTH THRU THE PERIOD. THIS WILL LEAVE THE AREA IN A BENIGN...AND MUCH WARMER THAN NORMAL AIRMASS THRU TUESDAY.
>
> &&

When a formatter returns text like this, and the paragraph is edited, the "&&" is wrapped back up into the paragraph. "&&" is a special terminator sequence that must be preserved on a separate line. Because the terminator can be wrapped back into the paragraph, products can be transmitted with formatting errors.

Problem: DatView Will Not Dispaly More Than Fours Years of Stage Data. (DR 18870)

When attempting to display more then 4 yrs worth of stage data in the DatView plot window, the plot will only display the first 4 years and then leaves the rest of the time period blank. Further testing has shown that it seems to be only data coming from the pecrsep DB table that has this problem.

Workaround. Never request more than 4 years' worth of data from the pecrsep. This is considered to be an unacceptable long-term solution.

Problem: PRODGEN can't find the existing files. (DR 18867)

ALL THESE FILES DO EXIST IN THE /awips/hydroapps/lx/rfc/nwsrfs/ffg/files/oper/text/ DIRECTORY, but get ERROR Message:

> ERROR: in fixopn - upopen status code -1 encountered opening file /awips/hydroapps/lx/rfc/nwsrfs/ffg/files/oper/affg/THTC2U.

Problem: WarnGen follow-up with no weather context. (DR 18866)

If one loads only warnings and then tries to do a followup, the tracking icon will not initialize right and the product gets formatted incorrectly.

The code fix is available and has been tested in OB8.1 at GSD.

Problem: Incorrect MAT Computations Generated by NWSRFS Module NDFD2RFS. (DR 18846)

When the ndfd2rfs module encounters a forecast segment where there are two MAT areas, and one of the zones is non-contiguous, the program computes errorneous forecasts.

For example, at NERFC, the SNE (Southern New England) group is in the southern most portion of their HSA where the areas are not subdivide. In this group, the temperature drop across the group as expected. The module then attempts to compute the temperature forecast for the Connecticut group. The computation appears to work for the first few segments . The program then issues a warning when it encounters the first non-contiguous zone and from that point the temperatures do not vary as expected in the Connecticut group or forecast segments in other basins.

The non-contiguous zone covers mountainous terrain that is delineated based upon elevation of a predetermined height.

Problem: KSEW station_name incorrect in hmdb database table station_location. (DR 18844)

Seattle WFO reported that the station_name field of the station_location table of the hmdb database for station KSEW is incorrect. It currently reads "STANWOOD WFO" and it should read "SEATTLE WFO"

> hmdb=> select station_id, station_code, station_name from station_location where station_code = 'KSEW';

```
station_id |  station_code | station_name
-----------+---------------+-------------
 18675 |  KSEW         | STANWOOD  WFO |
(1 row)
```

Problem: RiverMonitor displays old forecast data. (DR 18824)

The RiverMonitor application allows the user to display, in tabular form, a column of information which provided the maximum forecast value for a given location. Also, another column will display the Maximum of either the most recent observed value or the forecast value. However, there is not time filter on this column, so the application can display old forecast or observed data without presenting a visual cue to the user that the data is old (as is done with other columns of data in the application). Also, if this old data is greater than flood stage, the tabular cell displaying the data will be colored red, providing a false indication to the user that there is flooding occuring/forecast to occur.

These two columns of data--MaxFcstValue and ObsFcstMax--should allow the user to create time filters which consider both the valid time of the observed and forecast data, as well as the basistime of the forecast data. If the data is older than the user-defined time filter specifications, then the tabular cell displaying this data should either be colored gray, following the paradigm used by other data columns, or the data should not be displayed at all.

Problem: Time Series application not displaying Flood Categories. (DR 18821)

The Time Series application allows the user to display flood categories on the time series graphs of river stages. The user can configure the application to always display the flood categories--even if the data is significantly below the categorical thresholds--via the implementation of an .Apps_defaults token called timeseries_showcat. This token has 3 values:

1. Scale the graph to the data and only display the data.
2. scale the graph to the data and display the data and also the categories if the categories are within the scale of the data.
3. scale the graph to the categories and always display both the data and the categories.

The behavior associated with token values 2 and 3 will work properly for the first graph which is displayed during a given time series session. Subsequent time series plots displayed during that session will only scale the graph to the data and will not display the categories.

This problem was first identified in OB6. It was thought that it was fixed for OB7.1. However, examination of the behavior in OB7.2 shows that the problem still exists.

Workaround. User can manually alter the graph scaling to display the flood categories. This takes a couple extra user actions to accomplish.

Problem: Small enhancement request: Request to change serverConfig.py file. (DR 18813)

The following is from Matthew Belk at site BOX:

Many offices across the country use a default domain that is different from the default entries in the /awips/GFESuite/primary/etc/BASE/serverConfig.py file. These default domains created back around 2000 or earlier, are now out of date for various reasons. Many offices have changed to smaller domains when they changed to a higher grid resolution. The original grid spacing implemented in GFE was 20 km back in 2001; it is now 5 km at a maximum. The default domain entries in the serverConfig.py file need to reflect the current defaults used by each office. Otherwise, this could lead to failures or other unexpected results during GFE service backup or installs.

I request all offices be canvassed to supply their current GFE domain settings for inclusion into the serverConfig.py file. This will update the baseline settings and provide for a more viable failsafe.

Problem: Small Enhancement: Inclusion of Tide Data into the Archive DB and Verification. (DR 18810)

Data with a time interval of less than 15 minutes does not always fit cleanly in the 15 min interval format of the RFC Archive DB pecrsep table format. In particular, tidal gage data with a 6-minute interval is impacted at NWRFC (and SERFC in the near future). The fact that this data is not stored with its best fit into the pecrsep table makes verification of forecasts extremely difficult.

Solution: A new database table, one new apps_defaults token and some code changes to the shef_decode_raw and IVP (verification) applications.

- new table would be a single value per row format.
- new apps_defaults token for shef_decode_raw apps this token would control if shef_decode_raw posts data to just the pecrsep table or to both the pecrsep table and the new table.
- shef_decode_raw, the software would be modified so that if the token is set to say "ON" the decoder would post all data that would go into the pecrsep table, to it and the new table as well.

This means that the same piece of data would be stored in both tables. In the pseudo array table, pecrsep data with the smaller time interval is shoved into the best fit time slot while in the single value per table, i.e., the new table, it would be stored with it true observation time. RFCs that do wish/need to post in parallel to this new table would set the token to "OFF" which should be the default setting.

IVP (verification), the software would be modified to allow observed data during the paring process to be retrieved from this new table.

Problem: Small Enhancement: Modify the NUMCOSAV command of the ofs fcst program. (DR 18809)

Requirement: Modify the NUMCOSAV command of the ofs fcst program to save retrospective carryover information at any time during the day (6hr, 12hr, 18hgr, or 24 hr), not only at 24 hr.

Currently the ofs fcst program is run for ESP in the hindcasting mode to generate streamflow ensembles from different 6-hour meteorological input ensemble forecasts relative to different time windows. Some pre-processed meteorological ensembles are generated in internal time from 0hour - internal time (day1) to 0hour - internal time (day 2) and are then used to generate streamflow ensembles.

The carryover data information generated by the ofs fcst program in the hindcasting mode with the NUMCOSAV command is always relative to 24hour - local time. If another time is specified by the user, there is a time shift to generate the carryover information at 24hour – local time.

In that case, the carryover data information generated by the ofs fcst program

is relative to 24hour - local time (day 1) whereas the first input forecasts are relative to 0-6hour - internal time (equivalent to 6-12hour – local time) (day 2) and the first flow forecasts are generated for 6hour - internal time

(equivalent to 12hour – local time) (day 2). The carryover data relative to 24hour local time (day 1) is used as if it was relative to 6hour local time (day 2).There is an implicit 6hour time shift for the carryover information when streamflow hindcasts are generated and this leads to incorrect streamflow hindcasts.

The ofs program should be more flexible to enable the user to save the carryover data at any time (6hr, 12hr, 18hgr, or 24 hr). For this work, the carryover information would be saved at 6hr local time as it is needed for ingesting the pre-processed meteorological ensembles.

Problem: OFSSHEF Program Mishandling Missing Data. (DR 18800)

If data is missing, the ofsshef program generates a shef message and uses the value -99.0 when it should be using -9999.0 .

Problem: RFC Archiver Shefdecoder Incorrectly Testing Data Limits. (DR 18798)

The RAX raw shefdecoder (shef_decode_raw) is performing limits tests on forecast data when IT SHOULD NOT. The code needs to be changed so that limits tests are only performed on data with SHEF Type code of 'R'.

Background: With the current version of the raw shefdecoder, forecast data is having limits tests performed on it and it is possible for the value of the shef qualifier code to be set to an incorrect value.

Problem: The RFC Archiver SHEF Ref Tables Need Updating. (DR 18797)

The RFC Archive DB tables shefdur, shefex, shefpe, shefpe1, shefpetrans, shefprob, shefqc and shefts need to be updated to include all the SHEF codes that are in the latest SHEF manual (NWS Directive 10-944).

Problem: Observer Information Displayed improperly in HydroBase application. (DR 18796)

The HydroBase application allows the Service Hydrologist to record information about observers which support the Hydrology Program. One of the pieces of information is an address for the observer. The address field is broken into 3 distinct lines. Currently, the information in the 3rd address line is displayed in the first address line, as well as the 3rd address line. The proper information for the first address line is stored properly in the database, it is just not displayed.

This problem did not exist in earlier builds.

Workaround. None known.

Problem: Fatal DatView Editor Error. (DR 18795)

When editing data in a processed SHEF data value table, for ex. pehpsep, after entering the data and clicking the editor "Submit" button, all associated GUI windows close out and a memory fault is reported in the terminal window.

Problem: :HydroBase fails when accessing HydroGen window if hgstation table is empty. (DR 18791)

A new piece of functionality in OB7.2 allows the user to access the hgstation table in the hydro database from the HydroBase application. The hgstation table contains the list of all river locations for which the HydroGen application will generate XML files. These XML files are then passed to the regional web servers which display observed and forecast river data.

If the hgstation table is empty, the HydroBase application will crash when the user attempts to access the HydroGen configuration window.

Problem: HydroBase Flood Report Time Series missing Horizontal Scroll Bar. (DR 18790)

Within the HydroBase application, there is a function which displays flood event time series. The flood event time series is defined as the last observed value below flood stage (prior to the flood), all observed values above flood stage, and the first observed value below flood stage (after the flood). The flood event time series is presented in both a tabular format and a graphical time series format. If the flood event is a long-lasting flood event, the graphical time series should have a scroll bar which allows the user to scroll through the entire duration of the flood event. This scroll bar is missing. It was available in Build OB6 and before.

The flood report function assists Service Hydrologists in reviewing recent flooding and completing various monthly hydrologic reports. The user can view the data in tabular format.

Problem: Precip contour bullseye value shows "xxxx" for values above assigned range. (DR 18788)

This is a very minor issue. When a precipitation accumulation value is more than assigned scale, the bullseye value is shown as "xxxx". See attached image. Problem was seen for GFS and other models. The field has probably dealt with this from the beginning of time and it's a rare occurrence. It probably happens whenever a value goes beyond the assigned scale.

Problem: Small enhancement request: modify way RER is handled/named. (DR 18779)

Site PSR reported that it can cause confusion the way the Record Event Report (RER) is saved. The RER is automatically generated, and then a pop-up comes up that asks the forecaster if he would like to edit it. Then the product can be saved and transmitted.

The confusion comes about because it's unclear from the way the product is named whether the RER has been edited or not, and whether or not it's been transmitted. A forecaster coming in on a new shift would not know from the name of the RER product whether the product has been edited and transmitted or not.

The solution recommended by the site is to give the product different names based on whether it's been modified and transmitted or not. They would like the temporary product to be named WORKRER, and not to be given the RERPSR PIL until it's been transmitted.

They have another request if it's not too difficult. They would like to be able to only check for record events once or twice per day if possible. Currently, climate checks for record events and automatically generates an RER each time it as run, four times per day on the cron.

Problem: RadarMsgHandler priority level messages sent to GUARDIAN reassessment. (DR 18767)

This DR is opened to reassess the alarming system built into RadarMsgHandler in conjunction with GUARDIAN.

Sites report that certain reported RDA events, which currently are coded to send priority 4, or 2, messages, should be sent as priority 1. Sites have reported upwards of 15+ minutes to be notified by a pop-up that the RDA is down. This could impact operations during a severe weather event.

See below for suggestions from Matt Foster/OUN

We feel that as soon as this message was seen – “RDA Avail = Unavailable” – that a priority 1 alarm should have been triggered. This probably corresponds to a message from the RDA like "RDA STATUS: Stat=Standby" or Oper=Inoperable. I don't know exactly what sorts of messages they get from the radar. I can see what's in the radar's log, but I don't know if that's exactly what AWIPS sees.

I've been advised by someone with much more 88D experience than me that the "Base Data =" entry should NOT be relied upon for anything. When that message says, "Base Data = Reflectivity Velocity Spectrum Width" (which may be something like 'Data=All' from the radar), it only means that the three base moments are enabled. It does not necessarily mean that they are flowing normally. There is an example of exactly this in this KFDR case. There is a point in the logs, after the initial failure at 0432Z, where the message, "Base Data = Reflectivity Velocity Spectrum Width", can be seen. This occurred when the staff here at the WFO tried to restart the RDA. The RDA software was in Startup, and generated that message, even though the radar was NOT actually collecting data yet.

Also, we were a bit troubled by the fact that this message – “RDA Avail = Available Maintenance Mandatory” – only rated a priority 4 message. “Maintenance Mandatory” should trigger priority 2, in our opinion.

Problem: In climate GUI, monthly climate grayed out in import data window. (DR 18761)

The problem is that monthly climate is grayed out inexplicably in the climate GUI under 'Initialize Climate Database' and then 'Import Data Window'

To reproduce, open the climate application. Click on Initialize Climate Database, then from the left-most of the two windows that pops up, choose Import Data Window.

This was reported by Mike D'Angelo at CTP, and reproduced at ASM.

The site was trying to manually edit the monthly climate, and tried doing it this way after they were unsuccessful doing it the normal way through the GUI (not being able to manually edit climate from the GUI is a known issue, DR 17312, and the workaround is to manually edit climate through sql commands in the hmdb database).

The operational impact is that monthly climate can't be imported and edited this way.

Workaround. Manually edit climate through sql commands.

Problem: Small GFE enhancement: Segment the GLF product formatter. (DR 18758)

The Great Lakes' Open Lakes Forecast (GLF) is currently issued in a non-segmented format. This forecast product is inconsistent with all other National Weather Service text forecast products which utilize a segmented format. The segmented text format permits forecasters to group together forecast zones that are meteorologically similar. The segmented format serves to increase spatial and temporal precision and accuracy by more effectively communicating the information in the digital forecast database.

As a result, there is a need to provide to the Great Lakes marine communitya segmented GLF text product to more effectively group forecast marine zones. The segmented GLF product patterned after the Nearshore Marine Forecast (NSH), Coastal Waters Forecast (CWF), and Zone Forecast Product (ZFP) would fill this need.

This segmented format will compliment the newly created marine zones in the open Great Lakes waters. Those shapefiles will also be required along with the segmented GLF format.

Problem: Small enhancement request: GLF needs to be in segmented format. (DR 18756)

The Great Lakes' Open Lakes Forecast (GLF) is currently issued in a non-segmented format. This forecast product is inconsistent with all other National Weather Service text forecast products which utilize a segmented format. The segmented text format permits forecasters to group together forecast zones that are meteorologically similar. The segmented format serves to increase spatial and temporal precision and accuracy by more effectively communicating the information in the digital forecast database. As a result, there is a need to provide the Great Lakes marine community a segmented GLF text product to more effectively group forecast marine zones. The segmented GLF product patterned after the Nearshore Marine Forecast (NSH), Coastal Waters Forecast (CWF), and Zone Forecast Product (ZFP) would fill this need.

Problem: Workstation fxa logs are set to different but similar displays. (DR 18753)

The user fxa logs on LX & XT workstations are generally separated into directories named for the display (monitor) the GUI that created the log is running on. For example: If a D2D is opened on the middle monitor (:0.0), the IGC_process, etc. logs should be located in the /data/logs/fxa/display/:0.0/ directory. This may or may not be the case. The following directories are typically seen on XT workstations, when there should only be one:

:0

:0.0

localhost:0

localhost:0.0

xt1-mso:0

xt1-mso:0.0

This variability is multiplied by three on LX workstations. It is an annoyance for anyone troubleshooting an issue on a workstation because the log could be in anyone of the six or more directories for that display.

Problem: DS decom: Change ownership and permissions for legalArchiver.sh script. (DR 18752)

The legalArchiver.sh script maintains a 30 day archive of Official User Products (OUP) and a 7-day archive of observations (such as ASOS and Upper Air products). It writes its products to an archive directory that is owned by the root user, and only the root user has write permission to the archive directory. For the legalArchiver.sh script to be run properly by the fxa user: the legalArchiver.sh script must be owned by the root user and the legalArchiver.sh script must have the SUID bit set so that when the fxa user runs the legalArchiver.sh script, the fxa user temporarily has all of the permissions allowed to the root user. The commands to correctly set the legalArchiver.sh file ownership and permissions would be:

chown root:fxalpha /awips/fxa/bin/legalArchiver.sh

chmod 4555 /awips/fxa/bin/legalArchiver.sh

Problem: DS decom: Add legalArchiver.sh to dx1cron file. (DR 18751)

The legalArchiver.sh script maintains a 30-day archive of Official User Products (OUP) and a 7-day archive of observations (such as ASOS and Upper Air products). In OB7.2 the legalArchiver.sh script is started by the DS1 fxa cron. Before the DS1/DS2 servers are decommissioned the legalArchiver.sh script should be run by one of the Linux server crons. As a suggestion, the legalArchiver.sh script could be added to the dx1cron and it should be executed by the fxa user.

Problem: OB7.2.1 SREF: bad data near model boundaries (Ref DR 18731). (DR 18750)

The SREF model data stores on the Alaska system, but I have noticed some border problems with the graphical data. This could also be a problem with Puerto Rico data, but I have not observed the PR243 grids. The bad data does not cause any functional problems, for what I have observed… D2D or IGC has not hung or crashed. I have attached screenshots of this observation.

Problem: CCF doesn't give dominant weather type. (DR 18746)

Site PQR issued a CCF in which the first 10 hours had a 20% POP and the last 2 hours had an 80% POP. This was from 12Z-0Z. The CCF listed the weather as 'Rain'. This shouldn't have happened because the rain was only for 2 out of the 12 hours. The bug hasn't been reported at other sites.

Workaround. None, except for manually editing the completed CCF product.

Problem: nwrWatchDog cron does not fail over to dx2. (DR 18732)

When DX1 is failed over to DX2, the nwrWatchDog cron still checks nwrTrans.pl process on DX1. Since DX1 is down and there is no nwrTrans.pl process running on DX1. This results in nwrWatchDog to activate nwrTrans.pl process every minute and generate a large number of nwrWatchDog log files on DX1 or on DX2. This ends up two nwrTrans.pl processes running simultaneously on both DX1 and DX2. The products ready to be sent in /data/fxa/workFiles/nwr/ready has the same mount point to both DX1 and DX2. Therefore, both nwrTrans.pl processes on DX1 and DX2 are racing the ready products to send them over to CRS. Any products are picked up by the nwrTran.pl process on DX1 will end up hanging in the pending directory since there is no sendToNWR process running on DX1 server. This results in some products stuck in the pending list and not being transferred to CRS intermittently. Unless the failed DX1 server is totally power off, this problem will exist forever.

Workaround.

1. Manually purge nwrWatchDog log files from time to time. Manually send the stuck products in the pending list to CRS.

2. Totally power off the failer server.

Impact: This will interrupt on NWRWaives operation when the site fails DX1 server to DX2 server.

Problem: Excess D2D saved color schemes display no colors. (DR 18726)

The mechanism to delete saved color schemes comes up with a confirmation window that says "Delete Color table: Linear. Are you sure?" when one of the recently-saved names is selected. It seems the new names can be stored and show up in the list, but cannot be reached by the delete or display functions.

This was seen in OB7.2.1, but is probably not just a problem there -- more likely the repetetive testing just reached the critical number of saves during the testing of OB7.2.1.

Problem: Some processes do not halt when failing back to DX2 . (DR 18725)

Some of the processes do not halt when failing back to DX2.

Problem: MHS does not restart using Mozilla Restart gui. (DR 18724)

MHS does not restart using Mozilla Restart gui.

Problem: Climate F6: max 24hr snowfall only for calendar-day periods. (DR 18721)

Mark Mitchell at site EAX reported that the F6 product is not showing the correct 24-hour snowfall. He is referring to the summary blocks of text underneath the report for each day, under the [PRECIPITATION DATA] header, where it says 'SNOW, ICE PELLETS, HAIL', and 'GRTST 24HR'. The problem is that it only shows the greatest amount in a calendar day, not the greatest amount in any 24 hr. period.

The example that he was referring to at the Kansas City Int'l Airport seems to have been superseded by a higher amount later in the month or manually corrected.

However, I found a good example in the Fairbanks, AK F6 product for February 2007.

> Feb 25: .05" water equiv, .6" snow.
>
> Feb 26: .03" water equiv, .3" snow.
>
> Greatest 24 hour precip: .08" on the 25th-26th.
>
> Greatest 24 hour snowfall: .6" on the 25th.

It should be .9" on the 25th-26th, assuming the 24 hour precip. record is correct.

Workaround. Manually edit the max snowfall in the F6 product.

Problem: Neighbouring. offices do not see ISC grids during duration of SCEC hazard. (DR 18720)

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 greater issue here though 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.

Here is Mark Mathewson's reply to the listserv that has been condensed so that it fits in the Dimensions DR description buffer. The complete text is in the attached documents:

The current OB7.2 s/w will continue this issue. When ISC receives a "key" that it doesn't understand, instead of corrupting the databaseit 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.

We 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.

Problem: Web page displaying config. files on central server doesn't show NTCD, NTCB. (DR 18717)

The problem is that the training center (NTCB, NTCD) can't see that their config's have been put on the central server at the AWIPS network at 165.92.25.138:90 where sites are supposed to be able to check.

I spoke with Jim Calkins and Paul Hershberg at MDL, and they were unsure who maintains that website.

The Web site is set up for the purpose of service backup, and since the training center is not configured for service backup, that may be the reason why their file is not visible on the website.

The issue is not that the file is not on the central server, it is there. It's just that it doesn't show up on the website.

Sam Beckman at the training center said that he had noticed that other national centers' configurations didn't show up on the website either.

Workaround. None.

Operational Impact. None.

Sam Beckman is at sam.beckman@noaa.gov, 816-880-9314 x238.

Problem: Data Montior: grid info pages for new OB7.2 grids show incorrect data set. (DR 18713)

On the grid data page of the Data Monitor, for each product in the data set listing, there is an "Info" Button, indicated by a Yellow Note icon, that contains specific information about that product. For products added in OB7.2 there is a typo such that on each information page, the Dataset is listed as MOSGuide, although these are not MOSGuide products. The html files requiring change are: AK216SREF.html, CONUS212SREF.html, GRID130RUC.htmL, LATLONRTGHRSST.html, NDFDRTMA.html, PR243SREF.html, REG180OPCWave.html, REG181OPCWave.html, and REG182OPCWave.html

Problem: Missing max humidity time in climate is recorded as -32768, not 9999 at site GYX. (DR 18695)

Site GYX reported that the time of occurence minimum and maximum daily humidity (max_rh_hour, min_rh_hour) for their climate station GYX (Gray, Maine) are being reported as -32768 instead of the proper value of 9999 for missing. It's not a particularly important problem, as the weather station at Gray doesn't report humidity in the first place. They just need the missing values to be reported correctly as 9999. I looked at their climate database back in January, and the -32768 values had been reported since early in 2006. I manually changed all of them to 9999. However, the next day, the max and min humidity were reported as -32768, so the problem still exists.

As of Mar. 7, KOKC and KSPS at OUN are also having the same problem. However, they actually report humidity, so it is a more serious problem for them.

Problem: Text editor locks up when word wrap is turned off. (DR 18691)

Site GRR reports that the text editor in AWIPS locks up when word wrap is turned off.

The POC at Grand Rapids is Wayne, (616) 949-5150.

They need to turn word wrap off when editing the daily climate report because its width is greater than the 69 character width in the text editor. When word wrap is on, the daily climate is displayed incorrectly because of the 69 character width limit.

I talked to Wayne later and he said that he found a workaround. He said that if he goes to options and sets wordwrap to 80 characters instead of 69, it works fine. He said that he would recommend just having the 'autowrap off' option removed from the text editor because it is not needed.

Problem: TextDB log file does not store the reading processing info. (DR 18690)

When executing the Failover_DX1toDX2_Databse test case, writing to TextDB and reading from TextDB work fine. However, the TextDB log file does not store the reading processing information. Please see the test case (step 14) under /Workset AWIPS.WFOAOB8.1/Test/WFOTesting/Failover/ directory in Dimensions. The problem only exists on DX2. It works fine on DX1.

Problem: purgeProcess does not correcly recurse directories. (DR 18688)

Received a report the data in /data/fxa/point/ramos/Bad is not purging. There is currently over 5000 files in there when only 20 should be in there at one time. For some reason the purgeInfo.txt file in /data/fxa/nationalData is not removing this data.

Analysis shows that the problem is due the the "recursive" flag in the purgeInfo.txt entry for /data/fxa/point/ramos/.

Workaround. If /data/fxa/point/ramos/Bad is specified, the directory is purged. This is a hassle for sites ingesting ramos data or other kinds of data that are purged via a recursive scan.

Problem: Small enhancement request: for eastern region, amend Maps.py and MapFiles.py. (DR 18682)

From Paul Jendrowski at site RNK:

Title: ER change request to baseline GFE maps and provide local shapefiles with service backup

ER sites will be implementing the required changes as local overrides in the interim until the baseline is changed. The attached tar files contains code changes to Maps.py and MapFiles.py that implement the enhancements requested by ERH. The tar file also contains the installation documentation and tools that ER sites will use to implement the changes.

For any technical questions regarding this change request, please contact:

Paul Jendrowski
ITO WFO RNK
Blacksburg, VA
540-552-1613 x235
paul.jendrowski@noaa.gov

Problem: artsplay will not play some sound files. (DR 18678)

The Guardian application uses a command called "artsplay" to play sound files. However, some of the sound files do not play. The sound files are located in /awips/fxa/data/sounds. Of the files in this directory, these are the files which do not play:

beep.au
bugle.au
CrashCymbal.au
Explosion.au
HitMe.au
MetalAlarm.au
Passing_Train.au

The main issue here is not that these sound files are being used - but that they *could* be used. It is left to the user of the Guardian application to use sound files, and which to use.

Workaround: Refrain from using the sound files listed above.

Problem: Indentation off in daily climate (CLI) NWWS product output. (DR 18676)

Post OB7.2 there is an indentation error in the daily climate report for NWWS. The following line is indented one space from the margin. It shouldn't have any indentation:

WEATHER ITEM OBSERVED TIME RECORD YEAR NORMAL DEPARTURE LAST

It looks like this:

...THE WASHINGTON NATIONAL CLIMATE SUMMARY FOR FEBRUARY 21 2007...

VALID TODAY AS OF 0400 PM LOCAL TIME.

CLIMATE NORMAL PERIOD 1971 TO 2000

CLIMATE RECORD PERIOD 1871 TO 2007

WEATHER ITEM OBSERVED TIME RECORD YEAR NORMAL DEPARTURE LAST

VALUE (LST) VALUE VALUE FROM YEAR

NORMAL

.....

And it should look like this:

...THE WASHINGTON NATIONAL CLIMATE SUMMARY FOR FEBRUARY 21 2007...

VALID TODAY AS OF 0400 PM LOCAL TIME.

CLIMATE NORMAL PERIOD 1971 TO 2000

CLIMATE RECORD PERIOD 1871 TO 2007

WEATHER ITEM OBSERVED TIME RECORD YEAR NORMAL DEPARTURE LAST

VALUE (LST) VALUE VALUE FROM YEAR

NORMAL

.....

In addition, further down in the report, 'WIND (MPH)' is also indented one space and shouldn't be (this one is much less obvious than the 'WEATHER ITEM' one).

Problem: GFE: Formatter problem with ZFP wording. (DR 18670)

The alternate temp_trends method (which is baseline code, but commented out, out of the box) adds more checks and detail than the operational temp_trends method which makes it popular among NWS offices.

Problem: In the grids...

Current time is 1202am. Issuing an updated ZFP (Early Morning Update).

The alternate temp_trends method is in use, meaning it is uncommented and in an override somewhere (for purposes of testing, try placing in Patch_Overrides). Rising temperatures are expected overnight with strong south winds. However, the formatter returns "after midnight" wording even though it is already after midnight. The formatter should return either no timer phrase or a timer phrase that is further into the future.

Tonight:

Temperature (T) (12am): 25F

Temperature (T) (1am): 26F

Temperature (T) (2am): 27F

Temperature (T) (3am): 28F

Temperature (T) (4am): 29F

Temperature (T) (5am): 30F

The Baseline_ZFP returns this (with alternate temp_trends in Patch_Overrides):

.TONIGHT...LOW IN THE MID 20S. TEMPERATURE STEADY OR SLOWLY RISING AFTER MIDNIGHT.

With the attached fix, it returns:

.TONIGHT...LOW IN THE MID 20S. TEMPERATURE STEADY OR SLOWLY RISING THROUGH SUNRISE.

The problem is that len(tStats) should account for up to 6 hours of statistics if you are after midnight (or after noon in the case of falling temps in the daytime) to trigger the "through sunrise" (or "through late afternoon") phrase. It otherwise works fine...it is only a problem for situations that are triggered and an update is issued between 1200am and 1259am (or 1200pm and 1259pm).

Problem: GFE: Formatter problem with ZFP snow accumulations. (DR 18668)

Background: The total_snow_phrase takes into account both forecast snowfall and snow that has already fallen (both through the SnowAmt element). Taking into account past snowfall was a recent enhancement to eliminate the problem of total snow amounts decreasing during the course of an event or during updates.

Problem: If, during an ongoing snow event, I have this in the grids...

Current time is 600pm. Issuing a routine ZFP (Afternoon). 2" of snow has already fallen. Another 2" of snow is expected tonight and tomorrow, so looking at storm totals of 4".

Past SnowAmt Today (12pm-6pm): 2" SnowAmt.

Tonight (6pm-6am): 80% PoP, Def S- (in Wx), 1" SnowAmt.

Tomorrow (6am-6pm): 80% PoP, Def S- (in Wx), 1" SnowAmt.

The Baseline_ZFP returns this:

.TONIGHT...SNOW. SNOW ACCUMULATION AROUND 1 INCH.

.TUESDAY...SNOW. SNOW ACCUMULATION AROUND 1 INCH. TOTAL SNOW ACCUMULATION AROUND 2 INCHES.

With the attached fix, it returns:

> **.TONIGHT...SNOW. SNOW ACCUMULATION AROUND 1 INCH.**
>
> .TUESDAY...SNOW. SNOW ACCUMULATION AROUND 1 INCH. TOTAL SNOW ACCUMULATION AROUND 4 INCHES.

Problem: POP Grids in GFE overwritten by GFS model data. (DR 18667)

The following is from Brian Curran at MAF:

He said that they often have a number of weather element groups. When they switch from one to another, or open a new group, very infrequently the POP data in the weather element group is overwritten by GFS model data. He has heard of it happening back at least to OB6. He said one thing that is weird about it is that it kept the same time-blocks as he had in his zones: He had 6-hourly zones out to day 4 and 12-hourly zones for days 5 6, and 7. GFS data is in 6-hourly blocks all the way through day 7. But when his data was overwritten by GFS data, the GFS data was in 12-hourly blocks for days 5 6 and 7 the way that his zones were already set up.

When it occurs, this is an annoying problem at the site because they have to create the grids all over again. However, it is difficult to reproduce.

There is no record of it occurring at any other sites except for MAF.

Problem: D2D: Changes needed for the display CHGHUR guidance. (DR 18656)

TPC will be changing the format of the WHXX01 Hurricane Guidance text product AWIPS ID CHGHUR). The /awips/fxa/bin/CHGplotter uses this product to plot the forecast locations for hurricanes in D2D. The changes to the product are as follows:

> Addition of the issuing office line and date/time line
>
> Revised disclaimer statement
>
> Addition of the BAMS model
>
> Elimination of the A98E and P91E models
>
> Left justification of product

Attached should be the format of the legacy product and separate document the final format.

Problem: ds entry in IGC_Process and other display logs. (DR 18655)

Many of the display logs including the IGC_Process display log show a PROBLEM message referring to the ds. I'm not sure what problems this is causing, but want to document it.

> LOG-STATUS: Log file opened on host lx1-tbdw at Wed Feb 7 23:36:03 2007
>
> IGC_Process 17085 1170891363.315542 23:36:03.315 EVENT: warnGen started
>
> IGC_Process 17085 1170891466.170606 23:37:46.170 EVENT: Load mode for this load: Valid time seq

IGC_Process 17085 1170891466.174918 23:37:46.174 EVENT: Reading FFMP Basin accumulation inventory file.

IGC_Process 17085 1170891466.183310 23:37:46.183 PROBLEM: Cannot look up info on host ds: h_errno = 1

IGC_Process 17085 1170891466.183354 23:37:46.183 PROBLEM: Can't create an IPC target with invalid host: ds

Check the host entry in /etc/hosts.

IGC_Process 17085 1170891466.184175 23:37:46.184 PROBLEM: Cannot look up info on host ds: h_errno = 1

IGC_Process 17085 1170891466.184202 23:37:46.184 PROBLEM: Can't create an IPC target with invalid host: ds

Check the host entry in /etc/hosts.

MK: Updated Release Discovered to OB7.2 at request of originator.

Problem: WPR related scripts need be changed due to frame count. (DR 18649)

The Workstation Performance Ratings (WPR) scripts are affected by the changes of the frame count. The max number of frame count was changed from 32 to 64, thus the format of the frame count menu changed. The change affected the number of frames of products specified in scripts got loaded when scripts were invoked. When invoked, the number of frames loaded on D-2D is not same as specified in the scripts. This needs to be fixed so the workstation performance measurements could be measured consistently across builds.

Problem: Fog Monitor - first zoom from table does not work. (DR 18638)

A minor problem was found while running the Fog Monitor baseline tests on TBDW. When I try to zoom in on a zone from the table, the first time it doesn't zoom. If I select another zone it works, then go back to the first zone and it works. I can repeat this on TBDW and TBW4. The problem does not occur on NHDA, NHDW and TBW3.

Here's the log error message:

IGC_Process 21976 1170959937.605266 18:38:57.605 PROBLEM: The Zoom Re-Center coordinate is outside the display area.

IGC_Process 21976 1170959937.605374 18:38:57.605 EVENT: Sending message to Guardian: ANNOUNCER|The Zoom Re-Center coordinate is outside the display area.|2|LOCAL|lx2-tbdw|0

IGC_Process 21976 1170959937.605404 18:38:57.605 VERBOSE: Sending msg to CommsRouter. Target id = 0

IGC_Process 21976 1170959937.605478 18:38:57.605 DEBUG: The Zoom Re-Center coordinate is outside the display area.

zoomRecenterCode =-3

AWIPS_DR_18637 OB7.2 - GFE: Two FWS automated test cases fail. While running GFE automated testing for the OB7.2 security patch baseline testing, Diana Ginocchi discovered that two of the FWS automated tests fail. The tests that fail are testFWS_9 and testFWS_10. The logs are attached.

Problem: GFE: Enable nonlinear thresholds for change in wind direction. (DR 18632)

MLB would like to use nonlinear thresholds which control the phrasing when wind changes direction. Currently the threshold is a constant, i.e., independent of wind speeds.

Problem: Remove obsolete WWA information from the WarnGen templates. (DR 18624)

An analysis need to be done on what parts of the Warngen templates were used for coordination with the WWA software. Once these parts have been identified and examination of any other uses of this code needs to be done. If they are no current operational AWIPS applications for these parts of the templates then they should be removed.

For example, the SST believes that the following section from the AUX_INFO part of the template is no longer being used.

|geo_descriptor=2 |wwa_type=4

|wx_hazard=Hydrology |specific_hazard=Flash Flood

Problem. FWS formatter crashes in specific case. (DR 18622)

The following is from Virgil Middendorf at BYZ, who was able to replicate the problem that occurred at MAF (POC Greg Jackson) and suggest a solution:

This was in the code that we put in to fix the single and double quote crash. Attached is the fix. Search maf.py for "if not findAgencyFlag:" You will find this in three places. It is the last two places where I added this condition before the single quote and double quote filtering is done on this varDict entry.

How to test....

1. Note the REQUESTING AGENCY in the STQ product. It was "PECOS VALLEY DISPATCH" for MAF.
2. In the FWS_ccc_Definition file, add an entry for "PECOS VALLEY DISPATCH" in the agencyList definition.
3. Run the FWS formatter. In the Agency: section on the second GUI, "PECOS VALLEY DISPATCH" should already be selected. There should not be an entry box for "Name of Agency if not listed..." in the second GUI.

Problem: GFE: FWS 1 hourly sky cover table values are always CDY. (DR 18578)

To duplicate this problem, ensure the following in the FWS_???_Definition file...

1. Set the Sky entry of elementFormatDict to “alpha.”
2. Ensure that tabularResolutionDict includes a 1 in the list for each period.

Now run the formatter. In the second gui, select Tabular Only for the type of forecast. Check all of the SKY/WEATHER boxes and all of the “1” Tab Hrs settings.

You should see “CDY” for all times in the sky cover row.

Solution. In the FWS_Overrides module, there is a subroutine called _sky_value. There is one “break” command in the subroutine. Move the break command over one indent to the left.

Problem: Some radar code uses an incorrect leap year calculation. (DR 18556)

Radar ASM 1/19/2007 According to David Friedman:

"For each of the areas D-2D, LDAD, Radar, and WarnGen, we have found no DST dependencies that strictly match your criteria. However, I would like to document some issues that we did find for the sake of due diligence: Some radar code uses an incorrect leap year calculation. This code may be unused."

When clicking on a station ID in the Station Table, D2D does not perform the zoom and re-center on that station.

4.0 OB7.1

Problem. px3 gfe install fails with stale nfs mount. (DR 19459)

The GFE installation will fail on TBW4, as well as any multi-domain alaska site, with an nfs mount issue. The following error occurs:

Starting ifpServer for configuration on px3

---

su - ifps -c "ssh -q -n -t px3 'cd /awips/GFESuite/primary/bin;./runIFPServer -i'"

sh: ./runIFPServer: Stale NFS file handle

And then it aborts out and exits. Not sure why this occurs for the px3 install, but not for the dx4 install, unless the ordering is slightly different (as far as deleting directories, umounting/remounting partitions that might happen in the install).

The ***workaround*** we use is to run on px3 while the install is running

watch cd /awips/GFESuite/primary/bin

This seems to refresh the directory contents before the installation attempts to run the script in that directory.

Problem. AWIPS to CRS Interface Protocol Change to SSH (sftp). (DR 19442)

The current text weather product transport protocol between AWIPS and CRS is ftp. This allows several security deficiencies to exist on both the CRS and AWIPS networks. One such deficiency is the usage of cleartext passwords. To alleviate this and other issues the AWIPS application responsible for sending products to the CRS system should move to the SSH protocol (via sftp) and leverage the protocols ability to use key authentication. The CRS system has the ability to handle SSH traffic from AWIPS.

Problem. AvnFPS: LLWS not using aircraft-based winds correctly. (DR 19407)

AvnFPS is not using aircraft-based wind information correctly when calculating vertical wind shears.

Problem. AvnFPS: IFPS2AvnFPS should query ifpServer for edit area definitions.

IFPS2AvnFPS.py text formatter requires all TAF sites have a GFE edit area or otherwise it will fail silently. For some sites, this is not possible to do in a realistic manner. Thus, dummy edit areas have to be created. Prefer WFOs to not have to do this.

Problem. PDC (Station Obs Viewer) does not display any data. (DR 19249)

The Station Obs Viewer (PDC) in the D2D does not display any data, though data does exist. This was traced to inventory troubles. DR 16638 was also traced to inventory troubles, thus this

DR was not created back in January, however, it was decided recently to go ahead and create a separate DR for this issue, even though the fix for this will likely be the same as the fix for DR 16638.

Problem. notificationServer not updating Upper Air RAOB Green Times. (DR 19195)

Sometimes the notificationServer fails to update the green time on D-2D.

To ***work around*** this problem, user could restart the software or retransmit the notification.

Problem: Small Enhancement: Site Specific create crest forecasts. (DR 18988)

The Site Specific application allows the user to create a forecast hydrograph and write the forecast data to the database, where it is then available to be used by the Riverpro application. When writing the forecast data to the database, the Site Specific application does not explicitly identify a forecast crest value.

Site Specific should identify the maximum stage or discharge value in the forecast time series as the forecast crest by associating an X extremum value with the maximum data value when writing the forecast values to the database.

Problem: OB7.x LAPS Installed In Wrong Directory. (DR 18883)

A site reported that they had two laps bin directories:

/awips/laps/bin

/awips/laps/bin/bin

The executables in /awips/laps/bin/bin were time-stamped more recently than those in /awips/laps/bin. It was found that OB7.1 and OB7.2 installed new LAPS executables into the incorrect directories. This has already been fixed in OB8.1.

Operational Impact. None, as there were no DR fixes in OB7.1 or OB7.2 for LAPS. Sites have not reported any problems using LAPS.

Workaround. Copy all files frop /awips/laps/bin/bin to /awips/laps/bin on px1 and px2, then run a laps localization on each server.

Problem: Guam GFE Hazard_MWS.py template error. (DR 18802)

The following error is displayed when creating a MWS hazard:

"COMBINATION FILE NOT FOUND: EDITAREAS_MARINEZONES_GUM"

The error message is due to a Hazard_MWS.py template error that only affects GUM because they have two PILs, _MY and _PQ, for their MWS product. The site would currently experience this problem. They appear to not generate this product using the GFE or they would have reported the problem. Therefore, the DR is written up as a minor.

Problem: GFE: GHG Headline Error. (DR 18760)

Watch/Warning/Advisory headline and issuance line generated by GHG for events that end at 6 PM local time on the current day are being formatted as:

...WINTER WEATHER ADVISORY REMAINS IN EFFECT UNTIL 6 PM CST THIS AFTERNOON...

A WINTER WEATHER ADVISORY REMAINS IN EFFECT UNTIL 6 PM CST THIS AFTERNOON.

Per directive 10-503, appendix C section 2, the time phrases should be

"6 PM CST THIS EVENING".

Upon investigation, I found the error is in the TextUtility:

DiscretePhrases, in the timingWordTableEXPLICIT definition. In the sameDay=[section, the line:

```
(12*HR + 1 ,      18*HR,    "This Afternoon"),
```

needs to be changed to:

```
(12*HR + 1 ,      18*HR-1,    "This Afternoon")
```

TT 278769 from TOP refers to above TT.

Problem: AWIPS 1971-2000 Average annual temperature 0.1 diff. from NCDC. (DR 18716)

Site ABR reported that the annual mean temperature from the annual climate report is off by 0.1 degrees for Pierre. In AWIPS it says the mean temp for PIR is 47.6. In the NCDC normals, it says it's 47.5. This is the only example that they can find now, but they said that it has happened before that a monthly or annual mean temp. has been 0.1 degrees off from the 1971-2000 means from NCDC.

Darnell Early and I looked at the calculations for mean temperatures in the climate program, and it looked like they were calculated correctly. So we may need some coordination with NCDC if we want this fixed.

Problem: Locate cron no longer running. (DR 18715)

Prior to the OB7.1, a cron associated with the locate command was enabled. This cron updated the locate database on a regular basis, allowing files to be found using the locate command. If this update cron is not run, then the file database will be out of date, and you will not be able to find recent files. This problem will impact all sites, but it is unknown what effect this has on AWIPS, considering no operational site has reported this as a problem. I believe the function is mainly a convenience, but Randy at the NTC thought it important.

To fix this, edit /etc/updatedb.conf and change the "DAILY_UPDATE" setting to "yes".

Problem: Climate not displaying average sky cover in monthly climate summary (CLM). (DR 18693)

Site TBW reported that the AVERAGE SKY COVER under the SKY COVER heading in the CLM (monthly climate summary) is not listed. They have been adding it manually. The problem has been occurring for quite a while now, but they believe it started after they installed OB7.1 I looked at monthly climate summaries for other sites around the country, and noticed that at each site older CLM products from several months ago had the AVERAGE SKY COVER listed, but the newer products are missing it.

There is no problem with the average sky cover in the daily climate reports.

Problem: Mozilla cannot resolve PHP files. (DR 18657)

The file type php is not recognized by Mozilla. TAR is grabbing php files from external sources and bringing them onto px1. Attempts to bring up the file gives an error:

> "The file php is of the type application/x-php and mozilla does not know how to handle this file type"

It is possible there are errors in /etc/httpd/conf/httpd.conf or /etc/httpd/conf.d/php.conf.

Problem: AF: Provide a way for MHS to recover from file synch.errors. (DR 18654)

This occurs on all MHS servers at the NCF, so it involves both HP-UX (ms1-6) and RHEL 3 (mh1-6). This fix will be implemented post SMTP, so it will not be made on the HP-UX machines.

There is a workaround, which is to execute the service backup request again. These rsync'd files are not updated very frequently, so it will most likely function properly on the next attempt.

The proposed solution is to modify the msg_send command to allow the calling program to detect the I/O error and take appropriate action. This cannot be done currently since msg_send simply returns 0 for success, 1 for error. To maintain backward compatibility with existing applications, a new command line option would be added to allow it to return extended exit status codes. This would keep existing programs functioning as expected but also allow programs that need additional information about failures, such as IFPS service backup, to obtain it. Once this change is complete, a shell script for the IFPS service backup requests can be created to retry on I/O errors. This new script would be called from the MHS rcv_handler.tbl file on the NCF MHS servers. No changes would be needed at the sites.

Problem: ssh hangs after running AWIPS startup scripts. (DR 18653)

Several AWIPS start scripts do not "close the descriptor" when they finish. This is an issue with ssh because the way an ssh connection knows when to exit is when it receives an "EOF" (end-of-file) marker from the pipes connecting to the stdout and stderr of the process started.

This is a problem in Linux because when you start a process from the shell it will inherit references to the shell's stdout/stderr (aka standard streams). Unless this is prevented, or the process closes these pipes itself, it will cause sshd to wait indefinitely because it will not see an

EOF on the pipe connecting the process to the shell because it is also tied into the background process, i.e. one pipe for the ssh & the process.

Some ways around this -- unfortunately in AWIPS user fxa uses tcsh and there is no way around it globally in tcsh...for bash you can enter the following into you .bashrc profile: shopt huponexit on -- the easiest way around this, especially if done via a script is to redirect the stderr/stdout:

```
startIngest.dx2 < /dev/null >& /dev/null
```

Operational Impact. Little as the processes start> It could be a potential issue for crons or other start scripts that do not have a stderr/stdout redirect specified.

Problem: /etc/ntp/step-tickers references old as1/as2-ancf. (DR 18650)

Appears that the default settings for the step-tickers was changed in Spring2005 at all sites to reference as1/as2 as the boot sync host. /etc/ntp/step-tickers is read in on boot from /etc/init.d/ntpd which checks to see if the file exists and is non-zero in size. If both are satisfied ntpd reads in the file and uses the hosts listed to set the local box time. If the file is missing or ntpd cannot reach the hosts listed in the file it will use the CMOS (internal) clock on the device to set the time.

The problem is if the internal clock is off by more than 1024 seconds, or approx. 17 days, then ntp will never get the device in sync with the ntp server (dx1f)...and the time on that box will be different than the rest of the nodes at the site.

/etc/ntp/step-tickers.bak exists and has the correct entries...a simple mv of this file into the active will correct the problem.

Possible Operational Impact. None, if the CMOS time is current on each device. If the CMOS time is off greatly, this will cause system processes to fail.

Problem: Would like change to wording in XXXAQYZZZ product. (DR 18629)

From Mike Dion at NWS Headquarters. He wants a change made to AWIPS:

A new baseline formatter would be added to AWIPS.

XXXAQIZZZ would be the PIL of the product. The WMO Header is FKUS7

KXXX.

The formatter should have wording that says “Relayed from National Weather Serivce Office in City, State", not "From National Weather Service Office in City, State".

2/20/07 Matt Howard: Updated DR per email from Shannon White. Changed product to AQI from AQY and added the wording that it would be a new baseline formatter as there is currently not one to create this product.

Problem: Enhancement DR for VTEC. (DR 18628)

WFOs need the ability to select a "AS.O" VTEC product type.

This is for a new Air Stagnation Outlook that will be issued under the NPW AWIPS ID. Note: the VTEC code "AS.O" does not currently exist.

Problem: Add station elevation to point forecast matrices (PFMs). (DR 18626)

Add Station Elevation to PFMs. By specifying elevation, users can better understand the forecast values within the PFM products.

This is especially useful in areas of complex terrain where sites that are adjacent to each other may be located at significantly different heights.

Problem: Forecast matrices need to be in UTC instead of local time. (DR 18625)

Generation of Point Forecast Matrices (PFM) and Area Forecast Matrices (AFM) with respect to a UTC time label as opposed to a Local Time label.* This modification is important to properly align 12-hr Probability of Precipiation (PoP), Quantitative Precipitation Forecast (QPF) and Snow Amount grids with model guidance and the National Digital Forecast Database (NDFD), which both of which use Coordinated Universal Time (UTC). Satisfying this need will relieve the necessity for hourly grid population in order to ensure local time data is available on a standard UTC hour (i.e., 0,3,6,9,12,18,21).

Problem: format_climate words yearly snowfall in a confusing manner. (DR 18623)

For many years, the WFOs have been getting improper wording in on our NWR script for snow season. It will consistently say snow for the year to date. This is very confusing for our users...because the year that it is referring to is the July 1st through June 30th year (which is correct for snow) and not the calendar year. So we would like the wording to be either changed to "snowfall since July 1st" or "seasonal snowfall".

Problem: GFE Small enhancement request: Smart tool updates. (DR 18621)

Small enhancement request:

The following was called in by Joe Palko at PBZ/Eastern Region: Update the baseline CheckTandTd Smart Tool to CheckTTdWind. The original tool was created and baselined by GSD to address an NWS requirement for the QC of Temperature and Dewpoint grids. A new requirement has been added to also QC Wind and WindGust grids.

Problem: GFE Small enhancement request. (DR 18620)

The following was called in by Joe Palko, PBZ/Eastern Region:

Starting in OB7.1 the gridded MOS guidance is available, but it has a naming convention of PoP12. The baseline forecast grids have a naming convention called PoP. Therefore, 12-hr PoPs from the MOSGuide database do not populate into the PoP weather element in GFE.

Matt Hirsch (MLB) has posted "MyMOSGuide" smartinit to add this capability. Check it out at:

http://www.mdl.nws.noaa.gov/~applications/STR/generalappinfoout.php3?ap

pnum=1110

This smartinit needs to be fixed/placed in the baseline for future builds.

Problem: Increase Number of Stations within NWSRFS. (DR 18608)

KRF has reached the upper limit on the number stations that can be used within the forecasting element (ofs) of the National Weather Service River Forecast System (NWSRFS). The current limit is 5,000 and the RFC is requesting that that limit be raised to 10,000. This request for an increase will allow KRF to include additional gages that are already in place and planned expansion of gaging networks within their service area. This will improve both the accuracy of the forecasts and verification statistics.

Problem: IPC socket connections from dx1 --> px2f hang. (DR 18598)

Since the onset of OB7.1, the NCF has noticed a great number of sites who have ldad processes linger on their px2f device until killed by a root user manually, or until the device is rebooted. These processes are kicked off by the listener process on px2f. They are initiated when a product stores to the fxatext database, and the process textdbNotify.pl is run via trigger. So, the process flow goes like this:

Text Data Ingest --> TextDB -Write --> textdbNotify.pl --> listener (on px2) --> rcp/rsh to ls1

The command to the ls1 completes just fine, but the process itself on px2f does not stop. When issuing an `lsof | grep :15008` to see the state of the listener process, which parents these rcp processes, you will see a CLOSE_WAIT socket connection to dx1 for each of the hung rcp in this format:

listener 575 ldad 9u IPv4 58476192 TCP px2f-buf:15008->dx1-buf:53450 (CLOSE_WAIT)

sh 675 ldad 9u IPv4 58476192 TCP px2f-buf:15008->dx1-buf:53450 (CLOSE_WAIT)

rsh 841 ldad 9u IPv4 58476192 TCP px2f-buf:15008->dx1-buf:53450 (CLOSE_WAIT)

This problem is similar to the one notificationServer had in OB6 (Ref OB6 DR 15696). The problem is had was with socket connections communicating with the TextDB. This also appears to be a problem with the communication with process, as the TextDB_Server begins the whole process with a trigger kickoff.

The problem is causing eventual resource issues, and sporadic data flow problems from the px device to the ls1.

Problem: GFE: "Populate" menu too long to be displayed. (DR 18597)

When ILN hits the populate button, the menu becomes too long since it is populating both sites and because of this, the window is not able to display all parameters. Unfortunately there is not scroll bar for this window when this occurs.

Problem: GFE: Problem with ZFP for non-precip weather. (DR 18596)

ARX had problem with the ZFP formatter for non-precip weather, such as fog, blowing snow, haze. They will cause the formatter to fail when weather local effects have been implemented.

Two different exceptions occurred. There is an override for the one. The other one can be avoided by making changes to the local effects areas.

Problem: BurnToCd.tcl passes wrong parameters to growisofs. (DR 18569)

Matt Foster / OUN found that in the BurnToCD.tcl script on the archive server, if you are trying to burn a DVD is passes a -speed=8 parameter to the growisofs commands. Unfortunately, the DVD Burner's top speed is 2, so passing the wrong speed defaults the write to 1x.

File Name: BurnToCd.tcl

Line Number: 662

set burnCmd [list /usr/bin/growisofs -speel=8 -Z /dev/dvd=$isoFilePath |& cat]

Problem: KDE 3.3 menu cache causes problems. (DR 18545)

In KDE3.2 the requirement was in place to have KDE and Gnome share menu files (the menus that appear when you right click on the background of a KDE session). That being said, KDE3.2 and higher versions (AWIPS now uses KDE3.3 in OB7.1 – OB6.X sites use KDE3.1) create a menu database cache for every user who logs into a system and launches a KDE session. This cache is located in /var/tmp and follows the naming convention kdecache-$USER. This directory contains the cached menu files that get loaded when a user then logs back into the system.

Should the user change his/her desktop menu configuration during a session and logout the kdecache-$USER files are not updated because they require a re-sync of the menu database. This is usually achieved via an application call kbuildsyscoca, however AWIPS has this feature disabled (most likely due to issues with NFS user homedirs). The changes will still get written to the config files, however kde must “load” these config files in the kdecache-$USER directory in order to read them.

The solution is that the user should after logging out remove the /var/tmp/kdecache-$USER directory. Then, upon next login this cache will get recreated using the newly updated menu config files (~$USER/.kde/share/applnk or via the .menu options).

NB: Since this cache is located on the local disk, there is the possibility that a users session will be different on different LX and XT workstations even though the configuration is on a NFS mounted partition – KDE now reads the files from /var/tmp/kdecache-$USER which is local.

Problem: Metar2shef translator not producing shef messages when -nospeci is used. (DR 18525)

The metar2shef translator is invoked with a series of command line arguments. One of these arguments, -nospeci, instructs the translator to not process those metar reports which are special reports and contain the notation SPECI. In OB7.1, if the -nospeci argument is used, the metar2shef translator will: a) ignore special metar reports as it supposed to, and b) decode the

metar but NOT create SHEF messages for non-special reports. By not producing SHEF messages, the data is not posted to the hydro database and is not able to be used by Riverpro to create products such as RTPs. Also, the hourly precipitation data will not be available for Hydroview and MPE applications.

Problem: Problem with guidance winds in GFE when direction is due north. (DR 18523)

Matt Davis at La Crosse WI has found that guidance winds in GFE can be plotted as being from a different direction when the wind direction is from due north.

The following is from Rici Yu:

The problem is that the Smart Initilization modules (one for each model) need to be modified. Currently GFE tries to generate wind by first interpolating direction (where the problem comes in) and speed. It needs to interpolate (u,v) instead.

Problem: GFE: Remove snow flurries and ice crystals as accumulating type. (DR 18506)

Flurries and ice crystals should not be considered as accumulating weather type. Currently the ZFP contains the phrase "no snow accumulation" when flurries are forecast.

Problem: GFE VTEC: Multiple action codes in same segment for same ETN. (DR 18496)

A number of sites have experienced GHG assigning 2 different action codes for the same ETN in the same segment. This causes severe dissemination and tracking issues with our customers and must be fixed ASAP.

Discussions have taken place between developers and service leads and clarified requirements are being drafted.

Problem: Alert Request error for forecast MDA strength rank. (DR 18485)

When the adding a new alert for 32 Fcst MDA Strength Rank, an error is given. This only happens when adding that specific alert. See attached image and log for details.

To get the error, complete the following actions: Open D2D, select Radar from the D2D menu bar, select Alert Request, and select 32 Fcst MDA Strength Rank from the category pull-down menu.

###

16 Vol MDA Strength Rank has the same problem. -CWL [16-JAN-2007]

Problem: The purgeProcess -commit was not killed after failover back. (DR 18481)

The purgeProcess -commit was not killed on DX2 after failover back from dx2 to dx1. It continues to run to run on dx2 and both processes will purge data. I have confirmed that this problem exists on both OB7.1 and OB7.2.

Problem: IFPS/GFE install script sets wrong permissions on GFESuite subdirectory. (DR 18425)

After OB7.1 installs, it was found that the permissions on the following directories were set to 755, and they need to be 775 in order for the NotifyTextProd process to create the files which the VTECDecoder uses to update the active.tbl

/awips/GFESuite/primary/data/vtec/spool

/awips/GFESuite/primary/data/vtec/backup

After trying to set it manually to 775 before the masterGFE and IFPS install scripts, the directories were re-set to the incorrect permissions after these scripts.

MK - updated Level to OPR

Problem: XSETS Product Data Written Beyond Column 68. (DR 18388)

If XSETS reads in a one hour time series, it produces a SHEF message where the first line of data ends beyond column 68.

Problem: XSETS incorrectly formatted .E product. (DR 18387)

If XSETS reads in a one hour time series, it does not produce a correctly formatted SHEF .E six hour time stepped message.

Problem: GFE: double temperature wording in ZFP product. (DR 18363)

The gfe formatter is given a double temperature wording in GFE for the zone forecast.

OMAZFPOAX is reporting both the steady temperature and high’s and low's

Problem: GFE: Minor change in AFD formatter. (DR 18339)

A minor bug has been found in the Baseline AFD formatter in the marineNameDict section. The code for Lake St Clair should be LC instead of SC. SC is the code for South Carolina and having it in the marineNameDict is causing problems for South Carolina offices. I fixed it in our regional formatter, so it should not be affecting anyone now, but it will need to be fixed in the baseline for the next release.

Problem: GFSensemble time series displays incorrectly. (DR 18289)

When GFSensemble is loaded as a time series through the volume browser in D2D, it shows loading of 12 perturbations, however perturbation 2 loads first, and then perturbation 1 and 3-12 are loaded with ranges of data at each time stamp. Each time you unload the "first" perturbation, the next one in line plots correctly. For example, if you unload perturbation 2, then perturbation 1 plots correctly.

From Mike Moss / SST :

To bring up the data: From the volume browser choose Time Series (say Point A), Ensemble, any variable (say temperature) and Plane (say 850 mb), then for source -- GFS Ensemble.

What gets displayed, instead of the proper “spaghetti” pattern you see at OB6 sites (more spread out in time), is a single plot for the first perturbation (usually #2), then vertical what is apparently range lines and a connecting line from perturbation #12 to perturbation #1 at the next forecast hour. If you display the wind barbs you only see a repetition of the lowest most barb in the “vertical” (which should really be the barb for each perturbation); that is, the same perturbation is being displayed at all “levels”.

The best way to describe this problem is visually and I’ll be glad to go over this with whoever is responsible for the DR.

Joshua Watson / VUY discovered this problem.

This was shown to be a problem at OB7.2 sites as well, but not with OB6 sites.

Problem: D2D Incorrectly Displays GFS40 Precip Type. (DR 18287)

Dan Baumgardt / SOO ARX reported the OB7.1 baseline delivers an icon set inconsistent with the SBN GRIB decoder file for the GFS40. In particular, the freezing rain is encoded incorrectly as all snow, and snow as rain / snow in the Precip Type.

Documented at: http://intra.crh.noaa.gov/metdat/vb/ptype_gfs40.htm

FIX:

In the iconStyle.rules file, change this entry:

```
* PTyp, ETA218

| 1 | 0 | 16,2 | 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 | \

255 79 71 71 80 183 185 185 89 47 186 186 184 188 187 187
```

to this entry (add ", GFS212"):

```
* PTyp, ETA218, GFS212

| 1 | 0 | 16,2 | 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 | \

255 79 71 71 80 183 185 185 89 47 186 186 184 188 187 187
```

Problem: SHEF Decoder Intermittently Shuts Down. (DR 18205)

The SHEF decoder at PTR will shutdown during product processing infrequently and at irregular intervals. There is no particular product thast causes this shutdown. Originally OHD and HSD both suspected it might involve the NSF mount problems, but this has proven not to be the case.

Problem: GFE Missing accumulation phrase in ZFP. (DR 18160)

Since OB7.1c install -- there is a bug in the module called "check accumulating weather" in the scale or phrases for the ZFP formatter

> *EXAMPLE*: If you have for one period (tonight and tomorrow for example) pops of 60% or higher for the entire period, the national directive states you must have accumulation totals...if

you have stratiform snow, and snow showers, in this same period, a descriptor is not generated (e.g., a word like accumulations). What happens is if you have S (for snow) and SW (for snow showers) there is a variable created called SNOWSNOW (all one word) which does not return a descriptor.

Workaround. Had site edit the descriptor_dict which has these array of variables and descriptors, there is no snowsnow, so they added one that would return the descriptor - accumulations of - into the ZFP for this event type.

MKensey 12/12/06 - updated title to remove OB7.2 reference, and removed the "c " from the Release Discovered field.

Problem: Radar X-section - request better vertical coordinate defaults. (DR 18101)

Mike Magsig from the Warning Decision Training Branch submitted the following problem report for OB7.1 beta 2 software. This is not an operational AWIPS site, but is a NWS entity that uses AWIPS software for training purposes. Mike contacted Ed Mandel, who suggested that he open an NCF trouble ticket to track the problem, which Mike thinks could be affecting other OB7.1 sites.

Mike is developing the training for OB7.1 along with Timm Decker at the WDTB and others in the NWS Training Division. Mike found that The new radar cross section capability in the volume browser has millibars as the primary vertical coordinate, and only limited height options in the volume browser. The standard coordinate for radar cross sections in the current RPG radar product used in warning decision making is height in Kft. The default state of the VB is not very useful, and it will have to be changed by everyone to get it in a usable state for warning decision making.

The test instructions have the few lines to add to the vbVcInfo.txt file to provide useful coordinates:

http://www-sdd.fsl.noaa.gov/~fxa/test_plans/build_ob7/tc_3240.html

Mike tried these, and the modification worked. He found that these values are better, but AGL in all height units and more levels up high is needed. Mike recommends the following values as meaningful defaults:

6 0.0 80000.0 "0-80 kft AGL"
6 0.0 60000.0 "0-60 kft AGL"
6 0.0 45000.0 "0-45 kft AGL"
6 0.0 30000.0 "0-30 kft AGL"
6 0.0 15000.0 "0-15 kft AGL"
6 0.0 10000.0 "0-10 kft AGL"
6 0.0 5000.0 "0-5 kft AGL"

5.0 RELEASE OB6

5.1 OB6.1

Problem: Text window may fail to pop up when generating warnings. (DR 19131)

In warnGen, the text window failed to pop up after a warning was issued. The site had to figure out what the generated product was called (it was WRKWG4), then manually find the product.

Apparently this is not a beta issue, as Andy Pohl at GYX says it has happened before.

The operational impact could is high as warnings could go out late.

Workaround. Know the name of the product generated and find it manually.

Problem: Error when editing radar request in RMR GUI. (DR 18484)

I have observed an error when editing a request in the RMR GUI. If one is to edit a request for elevation 0.5, data level 16, and resolution 1 the Edit Product GUI will display a resolution of .00005. If the user selects a different radar, then the resolution will go back to the default setting one 1. If the user selects a different elevation or data level, the resolution will remain .00005 and when the OK button is selected an error will be displayed. See the attached image for more details.

Problem: LSR Max city radius needs to be expanded to ~70 nautical miles. (DR 18435)

The problem is that Lake Charles Louisiana issued a local storm report for an offshore point that is more than 36 miles from the coast. They are responsible for marine zones out to around 70 miles offshore. The closest city on the LSR comes up as 'xxx' because of the way the application is set up. They would like the closest city to be able to get listed when the offshore point is more than 36 miles from the coast, up to 70 miles offshore.

Problem: XSETS not printing to three places after decimal points. (DR 18362)

The XSETS program, that is used at the RFC's to generate their SHEF encoded forecasts, utilizes thousand cubic feet(KCFS) as its standard unit of measure. However, it prints only to 2 places after the decimal point. It would improve program usability if an option could be specified within the configuration files to at least 3 places after the decimal point. This would allow the program to generate the necessary products to support additional low flow/drought related services at the RFC's.

Problem: OB6: /var/spool/clientmqueue filling. (DR 18327)

There appears to be a problem on all Linux devices where a directory is filling due to a queue of files. The files are located in

/var/spool/clientmqueue

This directory is used by the sendmail program. If sendmail is not actively in use, files never get removed from this directory. The files in there appear to be output of programs that were kicked off (mostly via cron).

The problem this creates is when the number of files in that directory become very large. An example at CAE (NCF TT's 267597 and 267856) happened on px1-cae. The site could no longer print to the printers and this was because the inodes were maxed out on px1-cae. There were over 360,000 files in that directory. The system was reporting /var as full even though its actual disk space usage was only around 52%. Once the directory was cleared, the printing problem went away.

Workaround. Editing /etc/crontab and changing

MAILTO=root

to

MAILTO=

fixes the problem.

Problem: Extra end of Report indicators($$) appearing in Record Event Reports . (DR 18284)

In the climate (Record Event Report)RER, There are extra $$ being added. Another reference ticket is TT# 265661.

Problem: Time Series can not Plot SHEF Encoded Soil Temperatures. (DR 18182)

The SHEF format allows for the reporting of a single physical element at multiple levels for one location (eg., soil temperature at multiple depths). Data of this type is stored in a seperate table in the hydro database. The Time Series application currently is not able to plot data from that table.

Problem: Locations with variable duration data can not be defined in Time Series groups. (DR 18181)

The Time Series Application allows users to set up predefined groups for quick display. These groups use the location ID and the SHEF physical element, duration, type source and extremum as part of the group definition. Data which is reported with a variable duration are unable to be set up in these predefined groups.

Problem: GRIBIT Program not Creating Readable Graphic. (DR 18165)

The GRIBIT QPF Graphic, being generated by PTR for HPVU, can not be opened.

Problem: Wrong Distribution Calculated In ESPADP. (DR 18159)

When choosing the weibull distribution from the ESPADP gui, the log weibull distribution is actually calculated.

Problem: OB6: vaccum on fxatext database should be run more often. (DR 18154)

Currently, the cron to vacuum the fxatext database is run twice a day.

```
# vacuum/analyze fxatext

05 03 * * * postgres /awips/ops/bin/vacuum_pgdb -d fxatext

05 07 * * * postgres /awips/ops/bin/vacuum_pgdb -d fxatext -z
```

Because this database has a large number of inserts and deletes over the course of a day, it would be beneficial to run vacuum more often in order to maintain a more level steady-state usage of disk space.

Also, in order to improve the efficiency of transactions to and from the fxatext database, the analyze option should almost always be used.

Problem: GFE Spell Check not working. (DR 18152)

The spell check is not working in GFEE. It is happening on all workstations for all users. He also said it has been happening for about a year. Two examples he gave where.

After the ...

.THIS AFTERNOON... MISPELLED WORD

and if a zero was used instead of the letter o.

t0, t00, etc.

Putting in an RF because functionality has not been lost. They just need to proof read before sending out products.

Problem: PLOT-TS min/max criteria not working. (DR 18148)

The card 5 option with the PLOT-TS doesn't work. Card 5 is used to specify to plot only periods in which the data from a selected time series exceeds or is less than a specified criteria.

Problem: Incorrect FLDWAV Cross Section Output. (DR 18122)

While using the mapping option, FLDWAV fails to correctly limit the cross sections outputted for the tributary.

Problem: Radar Mosaic prints data from only 1 or 2 radars. (DR 18115)

While working on another print issue, we found that when a site brings up a radar mosaic (Radar-->0.5 Reflectivity Mosaic) and prints to either lp1 or lp2, only one or two of the RDA echos will print out. We have tried this on multiple systems, and each fail on OB6 and OB7 sites.

Problem: 1 Hour Delta-T disallowed. (DR 18111)

When redefining stations with data type STG, source CDAS, time interval 1 the 1 hour delta-t is disallowed and set to 6 hours.

Problem: WarnGen polygon vertices should be locked for corrections. (DR 18106)

The site in testing this reported that they had an existing Severe Thunderstorm Warning [SVR] (again, in practice mode) covering multiple counties. They then issued a Severe Weather Statement [SVS] on this SVR.

We then went to correct the SVS, which we can now do in OB6. However, we also decided to try and shrink the warning polygon and removed one of the counties at the same time.

The text created did have 2 segments, one for the county being cancelled, and one for the counties where the SVR continues. However, the VTEC action code for both segments came up COR, where the cancelled segment should have come up CAN.

I know the workaround is to not change the polygon during a correction, but this is possible to do and the VTEC logic does not deal with it properly. The WarnGen software probably should not allow the polygon to be changed for SVS corrections. Original Trouble Ticket is 255795.

Problem ScatterometerWinds.html was not found; AWIPS System Monitor. (DR 17789)

Since the RAX will not be upgraded to RHEL3u4. The OB6 software for WFOA, AF, and the OB6 freeware will not be installed on the RAX. As a result the RAX will be out of sync with the rest of the AWIPS Baseline.

It was found that OB6 and OB7 systems can not reach the ScatterometerWinds.html from the AWIPS System Monitor. To replicate this error open the AWIPS System Monitor and click in the following: Point --> Scatterometer Winds information page (pin).

Problem. The Text WarnGen Window will not pop up on AFCs 10th workstation in Practice/Test Mode. (Ref. TT number 256225) . (DR 17771)

The Text WarnGen Window will not pop up on AFCs 10th workstation (named lxa, xta) in Practice/Test Mode. In May, Kathleen Cole at Mike Rega~Rs suggestion adjusted the out of the box configuration for /awips/fxa/.environs.lxa-afc file from WRKWG0 to WRKWGa (although Mike actually suggested capital ~SA~T. Under this situation (WRKWGa), Test and Practice mode will work and store a WRKWGa if the FXA_WARNGEN_PRODUCT_ID in the .environs.lxa-afc file is set to WRKWGa. Both in Operational Mode and in Test Mode, the Text WarnGen window will not appear on xta. They can~Rt access the WRKWGa from a Text Window because it will automatically switch the lower case ~Sa~T to an upper case ~SA~T. If you use Mike~Rs suggestion (WRKWGA) then neither Test, Practice or Operational mode will work. If the environmental variable is set to WRKWG0 then Operational WarnGen Mode works if the FXA_WARNGEN_PRODUCT_ID in the .environs.lxa-afc file is set to WRKWG0. Neither Practice nor Test mode works. In the later two cases, you will get an error like this:

> Mismatch of Graphic & Text workstations numbers.
>
> Graphic workstation=lxa-afc and Text Workstation=WRKWG0

AFC will be getting an 11th workstation (lxb, xtb) soon.

Problem. Installation scripts and file check in. (DR 17332)

Needed a DR to check in OB6.1 installation scripts and files necessary for installation.

Problem. CRS CAFE directory permissions violate AWIPS Security Policy. (DR 16543)

The permissions being set for the CRS CAFE NWEM Formatter directories and executables violates AWIPS Security Policy. Currently /home/CRS/bin, /home/CRS/NWEM, /home/CRS/NWEM/*.csh, and /home/CRS/NWEM/*.tcl have permissions of 777, and they need to be 775.

[Note: Other directories under /home/CRS may violate the policy as well. So the whole /home/CRS directory tree should be changed to 775.]

Problem. WF handleOUP.pl should use textdb and not textdbRemote. (DR 16540)

Currently handleOUP.pl is using textdbRemote in order to access the database. There are problems with textdbRemote in OB6, and it should be using textdb instead.

Problem. AF" sendmail error recovery. (DR 16535)

Handle temporary OS errors "from sendmail via retry or other recovery mechanism"

Problem. MHS Cluster Reconfiguration Scripts. (DR 16508)

Update cluster scripts to allow migration of a clustered MHS server pair's resources to another pair (i.e., allow mh3 to run mhs_mta::3 and mhs_sbn, and mh4 to run mhs_mta::4 and mhs_nwstg.)

Problem. AF: SBN data gathering. (DR 16132)

Need to collect SBN data from BNCF when failed over from ANCF. Install collectSBNData.go cron on BNCF; Modify log file cleanup script to move logs that are from the previous day to the archive; change the time of the cleanup script to run before the collectSBNdata.go cron.

Problem. AF: New NDFD servers. (DR 15966)

Update configurations to send data to new NDFD servers.

Problem. AF: Hazcollect Server Scripts. (DR 15963)

Write Hazcollect server start/stop scripts for Battelle.

Problem. AF: msg_send I/O error reading IFPS SBU files. (DR 17292)

MHS is used to transfer site specific config and grid files from the NAS during IFPS service backup to the destination site. rsync is used to create and update the config and grid files. rsync runs continuously throughout the day visiting each site in a round robin fashion to check for perform updates to the SBU files.

This problem occurs when an MHS server in the NCF receives a SBU file request at the same time rsync is writing to the same file. The result is that the read instruction, performed as a single operation, returns an I/O error from the operating system and the program aborts.

This was not detected previously because in every other case, MHS is only working with existing files that are not being operated on by any other system. IFPS Service Backup was added post MHS deployment and this event occurs infrequently. Furthermore, the test facilities do not contain IFPS service backup hardware, so this problem would never have been detected during test.

Note: For OB6 and prior open DR's please refer to OB8.1 Release Notes Section 3.