AWIPS OB8.3 Final Release Notes. Section III, Current Problems, 05 June 2008

Raytheon

AWIPS OB8.3: Final Release Notes

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

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1.0   RELEASE OB8.3

Problem. SCAN/FFMP Rate display not working. (DR 20248)

The standalone Rate display under the SCAN menu was not changed for DR 20115, but should have been. The symptom is a blank, unusable display for the Rate display for each radar under the SCAN menu.

Problem. FFMP - Cannot delete Forced Flash Flood Guidance setting. (DR 20225)

In the Forced Flash Flood Guidance GUI (ForcedFFG.tcl) the user cannot use the GUI to clear all Forced Guidance values. The DR is minor because the values can be modified and saved, but not totally cleared. Also, the values will expire according to the expiration time set in the GUI. A workaround is to remove the "flagged" file created by the GUI then all forced guidance is cleared.

Problem. GFE ISC design not compatible with RFC needs. (DR 20159)

Marty Lee at PTR (Portland RFC) described to me at length the problems they are having with the ISC changes in OB8.3.

Here is the background: A little over a year ago when they got GFE, their RFC realized that GFE was not designed for an office to be able to generate ISC grids that cover any other offices' CWAs. It is designed so that you can only own grids for your own CWA. This makes sense. However, from their perspective, they wanted to be able to create grids that cover other CWAs and share them with them.

They developed an elaborate workaround to be able to do that: they have a separate database and have made changes to /awips/GFESuite/primary/bin/run/iscExtract. So they have a system allowing them to send QPF grids that they create to WFOs in their region.

They have a number of technical issues to overcome with the OB8.3 installation including their non-baseline box they use for some of the work having Fedora instead of RedHat. But even once they work around these issues, they believe the system they have devised and used to send grids out for the last year is still not going to work. They think that without the capability of sending grids to a specific site, it isn't going to work.

In addition to the PTR RFC, Chris Gibson at the Salt Lake City RFC has developed a similar system and will be adversely impacted by OB8.3.

Problem. WarnGen: All options under Optional bullet are locked up for a correction. (DR 20170)

Currently, all options under "Optional bullet" are locked up for an event-correction by design for all WarnGen products. The options that do not affect VTEC should not be locked and should be allowed to select/unselect.

Problem. PX1 Failover: px1apps.log error entries. (DR 20051)

The log file (px1apps.log) shows that every time px1 is failed over to px2 or failed back, the process that brings down the package has a problem. No details are given, only that it FAILED.

Problem. SNOW: Implement present weather timeline. (DR 18955)

MDL wishes to add a timeline graph for the "present weather" parameter in the SNOW table. Currently, SNOW table has trend graphs for its numerical parameters. This popup would be similar, with text of the METAR platform's present weather parameter plotted over a time line.

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2.0   RELEASE OB8.2

Problem. Problem with Radar display after OB8.3 delta 7. (DR 20218)

Two sites have experienced this problem to this point. Trouble Tickets 330785 and 331050 are being opened and closed against this DR for those two sites.

Original message from TT331050: Here is my trouble ticket description for PUB.

> *We are an AWIPS OB8.3 (delta b7) test site. We installed RPG/RDA Build 10 on the radar on 5/9/08 which enables us to receive Super Resolution radar data for the 0.5 through 1.5 degree slices in AWIPS. These products are on the RPS list and are successfully arriving into AWIPS.*

Description of AWIPS problem:

> *When we display a Best Res "All Tilts" product on AWIPS, it will randomly display a lower resolution (8 bit) reflectivity product for a Super Resolution product in the frame loop. This most often occurs with the 1.5 degree slice, but can occur for the 0.5 degree or 0.9 degree slice as well. Clearing the pane, then reselecting the Best Res "All Tilts" product clears up the problem. However usually after a few volume scans, the problem re-appears again. This occurs fairly frequently and would be detrimental during severe weather.*

From David F's research:

> *In this case, the super-hires image displays correctly, but it is quickly replaced by the (lower quality) 1km-res image. This appears to only happen on the all-tilts displays.*

> *I tried to get confirmation from the PUB forecasters that this is what they saw, but the ones who saw it happen repeatedly are on the midnight shift. I will send them email.*

> *It is definitely an OB8.2 issue. I was able to reproduce it this at site CRP this afternoon.*

Problem. VTEC ETN not reset at 1st of January in a few cases. (DR 20208)

The issue is that VTEC ETNs are supposed to reset to 1 for the first hazard in the new year. However, if there is a hazard in effect over the 31st-1st and the hazard is continued, it is supposed to keep counting up until the continuations stop. In this case, there have been a couple occurrences recently where the hazard didn't get reset back to 1 after the continuations from the 31st ended.

One case was at PSR with their Red Flag Warning. The other was with SGX and a Wind Advisory.

The workaround is that there is a script available to go into the VTEC active table and manually reset the hazard back to 1. The script has to be run within a few minutes at all of the sites that the

issuing site shares ISC grids with as well. Otherwise, the changed ETN will get overwritten with the old ETN.

Problem. TPC products on same scale. (DR 20207)

Currently, the following products are available in D2D at these scales:

TPCHurWind available in N.H, N.A.,and CONUS.

TPCWindProb available in N.H.,N.A.,CONUS,Regional, and State.

TPCSurgeProb available in CONUS, Regional, State and WFO.

All these products should be made available on CONUS, Region, State, and WFO scale.

Problem. GFE: VTECPartners.py needs update and correction. (DR 20195)

There is currently an entry in ~/etc/BASE/VTECPartners.py which maps non-GFE VTEC hazards to their correct follow-up PILs. This list needs to be updated to the following:

```
VTEC_MAPPED_PILS =
{('TO','W','SVS'):'TOR',('SV','W','SVS'):'SVR',('FF','W','FFS'):'FFW',
 ('FL','W','FLS'):'FLW',('MA','W','MWS'):'SMW',('EW','W','SVS'):'EWW',
 ('FA','W','FLS'):'FLW',
  }
```

The FA.W needs to be added and the FF.W needs to be corrected.

The exact syntax shown is due to word processing limitations and the format currently in the file should be followed.

Without this change, areal and flash flood warnings will remain in the VTEC Active Table for 14 days which can lead to confusion for forecasters.

Problem. Remove site-specific CP configuration files from baseline. (DR 20189)

The OCONUS site CP configuration files are currently treated as baseline files and are distributed with every release. This makes maintenance unnecessarily complex and problematic due to the need to be able to modify these files between releases. Changes made to these files cannot even be tested prior to deployment because test beds do not exist for all OCONUS sites. The result is that any problems found with an OCONUS site CP configuration during actual installation at a site can take multiple releases to correct. Since the sites must be configured to operate correctly between releases, this also means that what is at the site doesn't match the repository for their release any way. The only thing gained by storing these site-specific files in Dimensions is that a backup exists in the event the copies at a site are destroyed. However, these files can still be maintained in Dimensions for archival purposes, without including them as part of baseline distributions. There is also a precedent for not having these files as part of the baseline. Each site maintains their own acq_patterns.txt file to control the products ingested. This is not a baseline file precisely for the reasons outlined above.

All that needs to be done is to modify the Imakefile that includes these in the build so that they aren't included any longer.

Problem. RFC needs in GFE for grid sizes and numbers overwhelms hardware. (DR 20188)

The problem is that at PTR, new grids start coming into GFE before old ones can finish coming in out to 10 days, the result being that PTR does not get all grids out to 10 days.
Here is an e-mail that Marty from PTR sent:

> *On 04/29/08 the GFS40 smartInit did not finish processing grids out to 240 hours until after the morning operational need for this information had passed (~ after 16Z). Grids were only available to spin up our operations out to about day 7.5, and we need to get out through day 10. We are running dx4 GFE at 2.5 km resolution (278,784 cells per grid). Tom LeFebvre at GSD made an analysis of our related GFE logfiles and determined that the GFS snowLevel grids were inordinately responsible for what appeared to be overloading our GFE server's processing capacity (even though it never looks like the CPU or memory of dx4 are being overly taxed).*

> *As a result of Tom LeFebvre's analysis on Tuesday, I implemented a modified GFS40 smartInit that excluded processing of snowLevel grids. The result Wednesday morning was that all remaining grids from the GFS40 processed successfully out through day 10 in time for use in NWRFC morning forecast operations.*

> *Unfortunately, this is not a satisfactory long-term solution -- to exclude important forecast guidance parameters such as snowLevel at the NWRFC where snow is extremely important in hydrologic forecasting.*

> *Tom Lefebvre sent this follow-up to me:*

>> *In my opinion we've done about all we can. The bottom line is that he's running with a domain about 3-4 times larger than any other WFO domain. So, it requires 3-4 times as much processing to make all of the calculations. So, something has to give. Either we can cut back on the number of weather elements, or the number of grid points, or the number of model runs. He's reached the limit of the hardware. I talked to him about this yesterday and he doesn't want to give up any of those. So, there's not much else we can do.*

Problem. Metar One Hour Precip Plot Amounts in D2D are not correct (OKX). (DR 20181)

There appears to be a problem with the one-hour precip plot amounts in D2D. The data being plotted is from the first observation in the hour (SPECI) and not the hourly.

Problem. AF: Discard RUC13 and PR GFS40 at GUM CPs. (DR 20179)

Modify acq_wmo_parms.sbn.gum to exclude codes 72 and 73 for products matching:

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[LM]?T??? KWBC   (Puerto Rico GFS40)

L?D??? KWBG   (CONUS RUC13)

Problem. AvnFPS: Fix issues with ICAO TAF format change. (DR 20163)

Based on testing by MDL/Raytheon on 14 May 2008:

When transitioning to new ICAO format, usual TAF transmission window causes a minor problem. The first TAF in new format will be issued 5 November 2008 ~1720Z but the new format doesn't take effect officially until 1800Z. Thus, for the first TAF in the new format, AvnFPS client's TAF indicator will go 'red' indicating a decoding error. This will be very disconcerting to forecasters, possibly causing unnecessary alarm at the field offices. Also, TAFs will not be monitored -- a loss of critical functionality until 1800Z arrives. Once that time passes, monitoring of the TAFs will be restored.

Another issue: With the new day/time time format of the TAF, the 'merge' option (combining the latest TAF with the template) when loading TAF for routine issuance is broken.

For both issues, the problems are easy to fix and test at Raytheon (we did the test procedure on 14 May).

Problem. Small Enhancement: FFMP Basin Trace overlap the WARNGEN polygon hatching. (DR 20157)

Dave Pearson at WFO Marquette asked whether we could provide a way to allow Upstream/Downstream hatching to co-exist with a WarnGen polygon. The current workround is to have FFMP open on a different window, but it would be easier if this could be accomplished on the same D2D screen. Doing this would allow a forecaster to more easily draw a flash flooding polygon on a downstream basin. The problem is that FFMP and WarnGen cannot be editable at the same time.

As to what Dave indicated at the end of his request, the D2D does not allow two applications to be EDITABLE at the same time. The current "clear" method clear the basin trace when if the FFMP interactive layer gets deactivated. We have to experiment to see if we change the current "clear" method to make the basin hatching to stay when the FFMP interactive layer gets deactivated. If it is workable, we can put the "clear" button in the Basin Table to clear the basin trace. This DR may take some time for the experiment.

Problem. GFE - 3 hour offset on GFE Sky grids from D2D. (DR 20154)

There was some discussion about this on the ifps infolist. Some sites noticed that their GFE Sky grids were displaced by 3 hours. Matt Belk at BOX posted that he noticed the problem also and had a workaround. Matt believes the problem was introduced in OB8.2.

The following is from Matt Belk:

> *I just took a quick look at the serverConfig.py file and saw the "tcc" field is being treated as an accumulative field. Thus the 00Z grid would be placed at the prior time of 21Z. I suspect this has crept into the baseline recently. The solution to the*

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time-shifting is very simple until we can get the baseline fixed. Each site would need to add this line to their localConfig.py file:

serverConfig.D2DAccumulativeElements['MOSGuide'].remove('tcc')

That will force the GFE to match the D2D display of the MOSGuide data once the server is restarted.

Matt

The problem will have to be fixed in the baseline so sites no longer have to add the line to their localConfig.py.

Problem. Small Enhancement: Simplification of GHG Winter Weather Products. (DR 20146)

This is a small enhancement to remove 7 winter weather products from GFE.

Specifically, AWIPS GHG software at all WFOs should not be able to create/issue:

    1. The following Winter Weather Advisories:
        a. Lake Effect Snow and Blowing Snow Advisory.
        b. Snow Advisory.
        c. Snow and Blowing Snow Advisory.
        d. Sleet Advisory.
        e. Blowing Snow Advisory.

    2. The following Winter Storm Warnings:
        a. Heavy Snow Warning.
        b. Sleet Warning.

Problem. BufrMosDecoder fails to decode 01Z cycle for LAMP. (DR 20143)

From TT 327960:

Monday, April 14, 2008 11:32:14 AM KevinJa

Mark Oberfield called to open this ticket. Mark stated that the Mos Buffer Decoder is failing to decode the 01z buffer lamp messages. This is affecting all sites.

Monday, April 14, 2008 11:38:38 AM MDLOBE

The absence of 01Z GFSLAMP data was reported initially by WFO CLE

****

Workaround: None..

Forecaster Impact: The 01Z LAMP D-2D depictable (station plot) is and will not be available to forecasters.

Also, aviation forecasters using AvnFPS will be unable to use 01Z LAMP guidance effectively for any TAF amendments (the text bulletin is available as a stop-gap measure).

****

Investigation of the problem revealed an error in MosBufrDecoder.C.

[On line 295, need to change to not throw out file if cycletime==1. Line 1124, if block, need to set return value to a value other than 1 when a file is thrown out due to age.]

Problem. OFS run crashed with 'not enough memory'. (DR 20141)

James Coe from APRFC run into a problem while trying to add some new forecast groups to OFS. After calibrating the upper Yukon basins in Canada this winter, he redefined the forecast group - OK so far. He then tried to create 2 new forecast groups YUKCAOLD (which is essentially the old forecast group definition with different naming convention) and YUKCARAW (which is the new forecast group definition that will be a 'raw', no forecaster intervention) - Everything is fine. He then started adding segments to YUKCARAW. There is no errors or warnings, but after that:

1. If there are 3 or less segments defined, the OFS FCST run (with the input file 'daily_fcst.all') works fine.
2. If there are 4 or more segments defined, the OFS FCST (with the input file 'daily_fcst.all') run bombed with the following message:

O: ALLOCATE: 3832955484 bytes requested; not enough memory.

More details can be found on NHDR in the directory /fs/hseb/bugs/tt327687.

Problem. GFE: Can get split ETNs for additional segments forced by forecaster. (DR 20138)

GFE will produce a split ETN when there is more than one segment that would normally have been fixed by DR 18496. This occurs when the forecaster is forcing the split by using the segment option in MakeHazard. So the result is the first segment will contain the correct EXT/NEW and the subsequent forced segments have EXT/EXT of the same ETN.

This is a huge issue for our customers and we continue to receive complaints, as it has happened a couple of times since the split ETN issue was advertised to be fixed in 8.2.

Forcing segments is necessary for the forecasters to place the needed information in the appropriate zones even if they are under the same hazard (different snow amounts, wind speeds, etc.). Therefore, no workaround exists for this problem.

Problem. GFE: PlotSPC/TPC procedures should give error if grids locked. (DR 20125)

If a hazard is locked by another user, both the PlotSPCWatches and PlotTPCEvents procedures will still attempt to run, but will not alter the portion of the Hazard grid which is locked. All the forecaster sees is usually nothing. This has caused Hazard grid to be modified such that incorrect products are generated.

The procedures should be modified to alert the user to the fact the Hazard grid is locked by another user. This is similar to the alerts the procedures already provide when being run when the hazard grid is separated. The incoming WOU/TCV gfeMessage should also be modified to ask the forecaster to make sure there are no locks on the Hazard grid before running.

This issue is also found in 8.2.1 and 8.3.

Workaround: Although there is not exactly an operational workaround, the sites should be QC'ing their products, altering the grids as necessary to ensure the correct product is generated.

Problem. RAX ofsshef Product Valid Date Incorrect. (DR 20113)

On the first and last days of the month, the ofsshef program is generating a product with an incorrect valid date. On the two days listed above, the program produces an ".E" formatted message where the first forecast value is 24 hours into the future instead of the next model time step. This bug is adversely affecting the QPF 50% Confidence Forecast and the QPF 95% Max/Min Confidence Forecasts that is beginning to be produced for the WFOs.

Problem. Small enhancement: GFE ZFP snow and ice accumulation enhancements and bug fixes. (DR 20111)

Tom Spriggs at LSX has put together some enhancements and bug fixes for snow accumulation wording in the ZFP. The code is complete - he was wondering if the DR can be assigned to a build and then Rici Yu with ASM could potentially check it in.

Here is an excerpt from the email that Tom sent Rici Yu:

I submit this for your consideration into inclusion into the baseline (perhaps OB9?), as this most importantly fixes the snow addition bug (but given that "range" correctly reports total snow, but it is not the sum of the snow phrases and could lead to confusion from the public who expect them to add up, others might still prefer "words", as folks here at my office do--so a choice is given through a Definition), but also brings ice accumulation events up to the same capabilities as that of snow and sleet. Finally, snow and sleet combined events or pure sleet events are better addressed with the enhancement of reporting to the nearest tenth of an inch when less than 1 inch given warning criteria for many offices is less than an inch.

Problem. AF: Add GFS40 grids (grid213) breakouts in acq_send_parms.sbn. (DR 20109)

When GFS 40 products (grid213) were added to SBN distribution, their WMO headers should have been added to the acq_send_parms.sbn STORE array break outs in elements 11 and 12 instead of falling into the default list in element 13. This affects site retransmission in that these grids are not resent from the CPs to the DXs when requested as part of the model grids and must be requested as element 13, which would request numerous other product retransmissions as well. This is not the preferred behavior, though it will not affect forecasters' ability to produce a forecast as long as it is understood when products must be resent from site CPs (which is not often). The workaround is to request elements 11, 12, AND 13 when model data needs to be resent instead of just requesting 11 and 12.

The fix is to append L?H????KWBC to the list of products in STORE array line 11 and M?H????KWBC to line 12.

Problem. AvnFPS: Fix TAF formatter to use IFPS gridded ceiling and visibility. (DR 20107)

Charleston, WV and neighboring offices produce gridded visibility and ceiling grids. Up to now, AvnFPS ignores these data.

Problem. AvnFPS: Handle missing LLWS sources better. (DR 20104)

When wind sources do not have information to calculate LLWS, then LLWS thread should do something better than WS000/00000KT .

Problem. Small Enhancement: SPC Day 1 Tornado Prod.(D2D) - replacing OSIP 06-020 Note: See DR 19936 for GFE portion. (DR 20103)

Here is a section from the OSIP 06-020 CONOPS document that has some info on this task. See the CONOPS document for more details.

Updated October 12, 2007: Gridded Day 1 tornado products are available from the SPC, are now disseminated on the SBN and are in the NDFD. Therefore, the Team requests the data be provided in AWIPS D2D and GFE as part of the OB9 baseline. This is the fourth data requirement for this project. The work and level of effort is analogous to the preceding three data sets: taking gridded National Center products into AWIPS for D2D and GFE displays.

Problem. AvnFPS: Lack of customization in QC check. (DR 20101)

Numerous forecasters in MDL survey, 2008, complain:

1) Generates erroneous alerts due to short climatology for that TAF site.

2) Also a failure of new TAF causes the QC check to halt for all sites, if doing multiple TAFs at a time.

Problem. AvnFPS: Persistent chiming on AvnWatch. (DR 20100)

Numerous forecasters in MDL survey, 2008, complain that AvnWatch alerts them too often due to receipt of duplicate METARs arriving over the SBN and into the text database.

Problem. password aging disabled at all 8.2/8.3 sites. (DR 20098)

  AWIPS_DR_20094 OB8.2: National Centers and Regional HQs may duplicate RUC data to RPG NCF found some RPGs were being sent multiple RUC model data messages. Only the WFO responsible for national reporting should be sending these messages. At times this was causing memory utilization to spike on the RPG, which would cause task failures and eventually lead to a crash of the RPG.

It was found that sites who borrow their localization from operational WFOS (such as regional HQs who are localized as their closest WFO, or regional HQ sites which do the same) were sending out these messages along with the operational WFO.

The sendEnvironData.csh script, which is run by cron, is the initiator to this transfer. The actual problem has to do with the /awips/fxa/data/wmoSiteInfo.txt file. This file records which sites are

national reporters, but it is done via localization ID. So a HQ who is borrowing a localization ID from a WFO will send the environData until this file is changed at all HQs.

For example, site EHU is localized as site FWD. They will send the RUC data to the RPGs KFWS and KGRY because of the line in wmoSiteInfo.txt:

    KFWD   4   9   FWSYD1 GRKYD2 DYXND4 DALND6
    DFWND6 SHVND7 TLXND7 FDRND7 VNXND7

Changing the FWSYD1 to FWSND1 (and the same with GRK) will fix this issue. Also, this only happens if the site is set up to connect to the RPG via ORPG (tcp/ip).

Problem. hmingest on ls2 / ls3 (new LDAD) doesn't process similar products. (DR 20093)

The hmingest process on the new LDAD servers needs a fix to allow processing of products whose PILs end in a similar manor. For example, at site IND the following weren't getting processed correctly:

    CHIRTPIL
    INDRTPIN

This is because they had "matched" product of INDRTPIND and CHIRTPILX.

To fix, the check_for_file function needs to be changed on line 118 and line 129.

    Line 118 Change From:
    numFiles=`ls -ltr ${2}*.txt | wc -l`

To:

    numFiles=`ls -ltr ${2}[1-9]*.txt | wc -l`
    Line 129 Change From:
    for ckfile in `ls -r ${2}*.txt`

To:

    for ckfile in `ls -r ${2}[1-9]*.txt

This will fix the problem.

The impact is some products may not be processed at WFOs who use hmingest on PILs less than 9 characters when there is a similar 9 character PIL. It could cause backups in the /ldad/data/hmIngest/ directory and decrease the processing efficiency of the hmingest script.

Workaround: The workaround would be for sites to edit these lines themselves.

Problem. [LS2/LS3] : Red-X on External Processes On AWIPS Process Monitor for hmingest. (DR 20087)

Gary Charles/NCF found that once a site transitions to the new ls2/ls3 LDAD servers, there will be a permanent red x showing on their AWIPS Monitor display web page. The RED-X is due to

the system looking for a "java" process associated with hmingestd. On the new ls2/ls3 servers, this is no longer associated with java, so the monitor scripts should look for the hmingest process itself.

The impact is that sites will always have a red X for external processes possibly making them unaware of real red-x alerts.

Workaround: To correct DR 20087 until its fix is put into a release, sites can:

cd /data/fxa/data/htdocs/ldadMon/conf
vi proc_external.conf

On line 53 change the following line:

Process|LS|java|HmIngest

to look like this:

Process|LS|hmingestd|hmingest

Problem. OB8.2: RUC13 3-hour precip stops at +8HR Forecast (should go to +12HR)

In OB8.2, when you display the RUC13 model through the Family menu, or bring up the 3-hour precip accumulation through the volume browser, it will display through the 8 hour forecast time, but will not display past that. The data should be available.

Workaround: As root on dx3 change to the /awips/fxa/data/ directory and make a backup copy of the ruc130.cdl file.

cd /awips/fxa/data/
scp ruc130.cdl ruc130.cdl.orig

Edit the ruc130.cdl file using **vi** and change line 625 from looking like this.

_tp3 = 1.e37f, 1.e37f, 1.e37f, 1.e37f, 1.e37f, 1.e37f, 1.e37f, 1.f, 1.f;

To this: (add 4 more "1.f" separated by commas)

_tp3 = 1.e37f, 1.e37f, 1.e37f, 1.e37f, 1.e37f, 1.e37f, 1.e37f, 1.f, 1.f, 1.f, 1.f, 1.f, 1.f

Save the file, and then run a -grids -dirs localization on dx3:

su - fxa
/awips/fxa/data/localization/scripts/mainScript.csh f -grids –dirs

Restart the GribDecoder, and Grib2Decoder

pkill GribDecoder
pkill Grib2Decoder

Copy the file to dx4 and re-run the -grids localization:

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> *scp /awips/fxa/data/ruc130.cdl dx4:/awips/fxa/data/*
> *ssh dx4*
> *su - fxa*
> */awips/fxa/data/localization/scripts/mainScript.csh f -grids -dirs*

(DR 20085)

Problem. OB8.2: RFC QPE mosaicked incorrectly in MPE. (DR 20075)

Beginning with OB8.2, the RFC-generated hourly QPE estimates are being transmitted to the WFOs for display in both MPE and D2D. If a WFO is serviced by multiple RFCs, a process at the WFO will mosaic the multiple RFC QPE estimates into one "product" for display in MPE and D2D.

In certain cases, the process which mosaics the multiple RFC estimates into one product fails to adjust the precipitation values properly to account for metric-to-English unit conversion. As a result, the precipitation values for one of the RFC estimates in the mosaic are incorrectly displayed.

Problem. HydroView with "Show Data" feature under Time Lapse did not work properly. (DR 20064)

When selecting the "Time Lapse" button (e.g. 6 hours duration) and then pressing the "Show Data" button from the Display Best Estimate QPE window, the data image did not display.

Problem. GFE: Forecaster should not be allowed to populate MakeHazard with NHC hazard. (DR 20058)

An issue was discovered in testing where HNC-issued tropical hazards could inadvertently be dropped without the forecaster's knowledge. While this should not happen if the correct steps are taken during WFO hazard creation, GFE should not remove hazards without the forecaster specifically requesting it.

GFE should alert the forecaster when he/she tries to populate the MakeHazard Tool with a HNC-issued hazard. This is not allowed as the ETNs will always differ from the local ones.

Problem. WarnGen – storm track should intersect warned area

On WarnGen (with any product), you can create a storm track that is no where near the warned area. If the TML is going to be included in a Warning, the storm track should intersect the warned area at some point. (DR 20046)

Problem. OB8x: WarnGen continuously attempts textdb reads when a product has <4 lines. (DR 20044)

Site TAE experienced significant slowdowns while using WarnGen during February 2008.

Ticket #323499 has the details. It was found the WarnGen software was looping through an attempt to read every version of the MIASVRTAE product (they had over 80 of them), one at a

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time, until the load eventually would cause the TextDB_Server to crash. It would take over 5 minutes for WarnGen to respond at times even when just hitting the reset button.

We found that the software continued to loop because it did not find what it expected from a specific version of the MIASVRTAE product which was stored in the text database with no text in the "product" field:

fxatext> select cccid,nnnid,xxxid,version, wmoid, hdrtime, createtime, char_length(product) from stdtextproducts where char_length(product)=0;

  cccid | nnnid | xxxid | version | wmoid | hdrtime | createtime | char_length

 -------+-------+-------+---------+--------+---------+------------+-------------

  MIA | SVR | TAE | 0 | ZZZZZZ | 000000 | 1202143505 | 0
Once it saw that this product had less than 4 lines in its text product it would continuously try and read all the iterations of this product from the text database (as shown below).
  warnGenWish 31706 1204040408.191662 15:40:08.191 PROBLEM: Not enough lines from ALL:MIASVRTAE

  warnGenWish 31706 1204040432.931413 15:40:32.931 PROBLEM: Not enough lines from -45:MIASVRTAE

  warnGenWish 31706 1204040458.010061 15:40:58.010 PROBLEM: Not enough lines from -46:MIASVRTAE

The software should not continue to loop through the products if it finds one which does not have enough lines. The continuous attempt to read 80 products from the text database from multiple workstations seems to have been a large part of the performance issues.

Problem. OB8.2: GribDecoder fails to decode CPC Outlook grids. (DR 20038)

When the monthly CPC Outlook grids arrived at sites after they upgraded to OB8.2, the grids failed to be decoded and stored into netCDF files. TT 324632 was written to address this problem. Investigation of the trouble ticket revealed that a bug was introduced into the OB8.2 GribDecoder code for decoding data for which the forecast times are encoded in months.

HSD feels that this problem has a serious impact on the Ensemble Streamflow Processing which is done at RFCs.

Workaround: None known.

Problem. OB8.2: cpsbns not configured to redirect to console on boot. (DR 20034)

The cpsbn1 and cpsbn2 at all sites is not configured to redirect boot output to console in the /boot/grub/grub.conf file.

This disables the ability to troubleshoot boot problems by logging into the xyplex / system console.

AWIPS OB8.3 Final Release Notes. Section III, Current Problems, 05 June 2008

Raytheon

To fix this issue, the following should be added to the end of the "kernel" line in /boot/grub/grub.conf

    console=tty1 console=ttyS0, 9600

Workaround: None, except to edit this file.

Problem. Small enhancement: Add ash fall VTEC type (AF.W) for Alaska WFOs. (DR 20008)

The following description is from Art Thomas:

> *WFOs need the ability to select an "AF.W" VTEC product type. This is for an AshFall Warning that will be issued under the NPW AWIPS ID. Note: currently WFOs can only issue AshFall Advisories (VTEC product type AF.Y). The AshFall warning should behave like all other NWS warnings with respect to upgrades, downgrades, etc. (DR 20012)*

Problem. Threshold values in ens_pre function Get_anomaly need to be changed. (DR 20002)

While investigating a problem with preprocessing of the CPC Seasonal Outlook grids, CPC highly recommended that the threshold values be changed from 33.3 to 33.33.

Problem. Gnu/Linux LDAD boot hangs waiting on signal from Xyplex

During the boot sequence of the Gnu/Linux LDADs it will hang immediately following the initialization of SELinux waiting on a reply back from the /dev/stty0 (console) port which is attached to the xyplex.

MANIFESTATION: On the terminal output you will only see: "Initializing SELinux Policies" and the LDAD will not continue the boot sequence and remain offline.

RESOLUTION: Log into the xyplex to send the signal to the LDAD, at which point it will continue to boot.

CAUSE: The initial configuration of the LDAD during the Gnu/Linux LDAD refresh used incorrect port parameters, enable FLOW CONTROL on the ports used for connection to the device. This was caused by an improper set statement in the /ldad/bin/xyplexConfigMenu.exp script:

send "set priv ttrstb;set port 38 flow xon;connect $ls1\r"

[above repeated for ports 36 & 37 on LS1-2-3 respectively]

The script needs to be changed if ever ran again to read:

send "set priv ttrstb;set port 38 flow disabled;connect $ls1\r"

[above repeated for ports 36 & 37 on LS1-2-3 respectively]

IMPACT: LDAD will not boot if the flow control is set to XON without user interaction on the xyplex.

The solution is to set the flow to disabled on the respective ports listed above. This can be done remotely and without intrusive measures. The sites will need to flash the information to the xyplex card in order to preserve the settings should the need arise to restore them. The flash memory card ONLY saves setting as a back-up, the primary settings are saved in local memory on the xyplex.

Problem. WG: wwa_flflood_sta.preWWA does not produce text in the body of FFS. (DR 20000)

In the wwa_flflood_sta.preWWA template, no text is produced after AT <TIME>… The code looks like it would only produce text if rapid rain induced snowmelt were the IC. This is not the desired design.

Numerous variables are defined in both the template and the LLL-dam_info.txt file which could be used to create verbiage for the FFS. Sites can do this on their own, but the formatter is not doing what it should.

Problem. OB8.2/OB8.3: radar bias table sent to RPG from dx3. (DR 19985)

We have surveyed many OB8.2 and 8.3 systems at HQ and in the field and have discovered that the radar precip bias table is being sent twice an hour via cron from dx3. This is incorrect. It should only be sent via cron from dx2 (dx2apps). The problem is that ingest.crontab.dx3, which is used to build crons for dx3apps, contains a cron job (sendEnvData.pl) which should only exist in ingest.crontab.dx2. The effect of this is that the radar bias table is being sent to the site's RPG four times an hour (versus only twice an hour which is the baseline requirement). That cron entry (sendEnvData.pl) in ingest.crontab.dx3 must be removed.

Problem. handleOUP.pl does not create a log file on XT workstations. (DR 19976)

The handleOUP.pl script is not able to create a log file when it is run on an XT workstation. The handleOUP.pl log files are a valuable tool for analyzing product dissemination to the NCF and without these log files it is difficult to determine the cause of product dissemination problems if a product is issued from an XT workstation.

If handleOUP.pl is run on an LX workstation, then handleOUP.pl creates a log file in the /data/logs/fxa/display directory system. However if handleOUP.pl is run on any other device (not an LX workstation) then handleOUP.pl attempts to create its log file in the /data/logs/fxa/YYYYMMDD directory. The problem is that the XT workstations do not have a /data/logs/fxa/YYYYMMDD directory therefore handleOUP.pl can not create its log file on an XT workstation.

A suggestion is that the XT handleOUP.pl log files be created exactly like the LX log files, create the log files in the /data/logs/fxa/display directory structure. For example if handleOUP.pl is run on xt1-fgf then the handleOUP.pl log file would be /data/logs/fxa/display/xt1-fgf:0.0/YYYYMMDD/handleOUP.log.

It looks like line 207 of the handleOUP.pl script configures the creation of log files on the HPUX WS workstations and the Linux LX workstations:

    if ($host !~ /^ws|lx/)

To add the XT workstations so that handleOUP.pl log files are created on the XT workstations, line 207 would be changed to:

    if ($host !~ /^ws|lx|xt/)

Problem. OB8.2: Error Message needed for RES-J in FCINIT. (DR 19968)

An error message needs to be added during a segment definition and the program FCINIT should error out when a NODE is defines in the TOPOLOGY section and not in the PARAMETERS section.

According to the user's manual, "NODE-ENDNODE" are required cards. Without the required cards, FCINIT should not allow the segment redefined.

Problem. textWindow doesn't retrieve most recent product by wmoid. (DR 19963)

When retrieving a product by wmo header + site (wmoid+site) using the text browser (textWindow.tcl) the most recent product is not always the one which is display. In this specific example, the following products were in the site's database when they were attempting to retrieve WWUS76+KMTR

ccid	nnnid	xxxid	version	hdrtime	createtime
SFO	NPW	MTR	0	141756	1203011816
SFO	NPW	MTR	11	141045	1202985925
SFO	NPW	MTR	10	140454	1202964857
SFO	NPW	MTR	9	132206	1202940361
SFO	NPW	MTR	8	131121	1202901665
SFO	NPW	MTR	7	081758	1202493521
SFO	NPW	MTR	6	081701	1202490098
SFO	NPW	MTR	5	081128	1202470101
SFO	NPW	MTR	4	281035	1201516508
SFO	NPW	MTR	3	280522	1201497734
SFO	NPW	MTR	2	271454	1201445672
SFO	NPW	MTR	1	271046	1201430790

(12 rows)

The product from January 28th at 1035GMT (version 4 from the results above) was displayed when the site was expecting the most recent version. As I understand it, this is because -- when the textdb software queries by wmoid+site -- it first sorts the returned values by wmoid, then site, then hdrtime. Since the wmoid and site were the same, it sorted the hdrtime descending -- which put the 281035 at the top of the list

Workaround: Remove all products from the previous month, or all of them of the same wmo header, and allow products to begin to repopulate. [*Note:* This workaround leaves open the possibility that the condition could reoccur monthly.]

Suggestion: Have the textdb software sort by createtime descending to find which is the most recent product created.

Problem. OB8.2: Radar mosaic loads slowly. (DR 19962)

The procedure with 25 hours of obs and 25 radar images loads too slowly.

Since OB 8.2, it has taken 2 minutes to load this up.

Problem. WarnGen Dam Break FFW: Dam name not locked for EXT. (DR 19942)

AN 2/14/08 TBDW OB8.2(Qinglu confirmed; we no longer have a platform with OB8.2)

WarnGen allows the user to create a Dam Break FFW for one dam and then create an EXT FFW for that product but with a different dam selected. Confirmed with Qinglu that the dam name should be locked and that it is an issue on OB8.2.

Problem. Small Enhancement - SPC Day 1 Tornado Prod. (GFE) - replacing OSIP 06-020. (DR 19936)

Note: See DR 20013 for D2D portion of this task.

Here is a section from the OSIP 06-020 CONOPS document that has some info on this task. See the CONOPS document for more details.

> *Updated October 12, 2007: Gridded Day 1 tornado products are available from the SPC, are now disseminated on the SBN and are in the NDFD. Therefore, the Team requests the data be provided in AWIPS D2D and GFE as part of the OB9 baseline. This is the fourth data requirement for this project. The work and level of effort is analogous to the preceding three data sets: Taking a gridded National Center products into AWIPS for D2D and GFE displays.*

Problem. Small Enhancement - Add notification for products in pending >5 min. (DR 19924)

Vasil Koleci has suggested that it would be very helpful to forecasters if there was a notice that popped up to notify in NWR browser if a product has been in pending for more than five minutes. That way, they would know the product needs to be sent out manually, and would not have to wait until they get calls from users asking where the product is.

This could potentially be implemented in Guardian, or it could be implemented through other means.

Problem. Storing 72 Rather Than 36 Versions of Non-Associated Radar Products. (DR 19919)

For radars which an AWIPS site only had dial access to the radar, the intent was to store only 36 versions of products from the radar. The access mode is defined in the radarsInUse.txt file. Historically if the radar category was 0 (the number zero) then the method for acquiring radar products was a SIMPACT dial and for SIMPACT dial radars AWIPS only stored 36 versions of each radar product.

When the dial method was changed from a SIMPACT dial to an AWIPS WAN dial, the radar category in radarsInUse.txt was changed from 0 to 3. AWIPS does not recognize that the AWIPS WAN dial category 3 is a dial therefore AWIPS stores 72 versions of each radar product rather than the desired 36 versions.

Most AWIPS sites are now saving 72 instead of the desired 36 versions of products received from non-associated radars. This problem arose when the WAN dial-up capability was added via the file radarsInUse.txt. The so-called "category" (last column in the file) is a "0" for conventional dials and a "3" for WAN dials. The purging of radar files assumes that if the category is non-zero, then the radar is local and 72 rather than 36 versions of the products are saved.

Therefore, we want category 3 to get the same purging as category 0. According to GSD, the way to implement this is on dx1 (dx2 for backup) in the file

　　　　/awips/fxa/data/localization/scripts/makePurgeTables.csh change

　　　　set asocRad = `grep -vE 'z$| 0$' radarsInUse.txt | awk '{print $1}'`

to

　　　　set asocRad = `grep -vE 'z$| 0$| 3$' radarsInUse.txt | awk '{print $1}'`

Then run a -purge localization and restart purge Process.

Problem. Missing MSAS file. (DR 19918)

Mike Barth reported the following on 2/8/08:

> *EAX got in touch with me earlier this week to report that the MSAS QC performed on RAWS mesonet precip accumulations was flunking observations it shouldn't be checking. I figured out that they were missing a configuration file that should have been installed in OB4. The file is:*

> /awips/fxa/ldad/MSAS/fslparms/pcp_meso.txt on px1 and px2.

> *The fix is simply to get this file out of the source tree and put it into the run-time directories.*

> *Then users of RAWS or HADS mesonet data can add entries to the file so that precip accumulations from those mesonets will be properly handled. If it turns out that this does get DR'ed, I can send you a paragraph explaining who should add these entries, and how to put them in there.*

Thanks,

Mike

****

I checked a few OB8.1 and OB8.2 sites. This pcp_meso.txt was not found on any of their PX1's, so I created this DR.

The following is additional information from Mike Barth that should go into the RELEASE NOTES in the release into which this fix goes:

Sites that process RAWS or HADS mesonet data from MADIS receive total accumulated precipitation in the precipAccum variable. The MSAS QC processing on px1 and px2 can be configured to create hourly and 24-hour accumulated precipitation from these observations, by putting entries for these mesonets intopx1/px2:/awips/fxa/ldad/MSAS/fslparms/pcp_meso.txt. This file was supposed to be incorporated in OB4, but slipped through the cracks. If the file doesn't exist, or if there are no entries for these mesonets, then the total precipitation will be flagged as bad by the MSAS QC, and shown that way on the local data QC plots.

Problem. restore_pgdb all option not working. (DR 19917)

The /awips/ops/bin/restore_pgdb script fails when attempting to restore ALL databases from a backup directory. The following line of code needs to be changed to remove the reference to .aa because the split command is no longer being used to create the backup files (Refer to AWIPS_DR_18489)

LINE 128:

```
    DBNAME_ARRAY=( $(ls -l *.aa | cut -d'.' -f1 |
       while read _DBNAME; do \
       echo $_DBNAME; done) )
```

changed to:

```
DBNAME_ARRAY=( $(ls -l | while read _DBNAME; do \
  echo $_DBNAME; done) )
```

The impact is serious, as the restore_all is used to recover from a fatal PowerVault failure.

Workaround: The NCF will have access to a patched script to FTP to sites when needed.

Problem. FSI: CAPPI texture on 3df (Short Cut Key – C) (Ref. DR 19496). (DR 19889)

FSI – CAPPI texture on 3df (Short Cut Key – C):

This option will indicate that it is turned on (with a check mark next to it), but will not actually work until you toggle it off and on. Typically this happens when you first start FSI with it already checked as "on".

This is a very rare condition (i.e. bug) with an easy workaround: just hit "C" twice instead of once.

The LOE from NSSL is too large.

Problem. GW: Skew-T graphic and sampling off by one degree. (DR 19885)

The problem is that the temperatures on the plot are off the background isotherm lines by one degree. For example, in d2d load up the sounding for PBZ. Turn on sampling and go to 500mb. The temp on the plot should read -19 Celcius and the cursor should be exactly on the -20 degree isotherm. This is the one degree error that the site was explaining.

Problem. OB8.2: Hydro Time Series "Batch Scale Stages" Function not working. (DR 19882)

The hydro time series allows the user to create pre-defined groups, which will result in the generation of multiple time series plots on one "page," or screen display. A group can consist of multiple "pages," and the user can then page up/down through the various plots.

The Batch Scale Stages function allows the user to have the minor/moderate/major flood categories delineated on all of the river stage plots that are viewable on current page. However, the OB8.2 bug results in the flood categories only being delineated on whichever time series plot is identified as the active plot of all the plots on the current page.

Problem. LAPS radar path is incorrect. (DR 19879)

We use laps radar in GFE. Without this fix laps Radar field is blank.

The bad path is in the file

/data/fxa/laps/static/remap.nl the path that has to be corrected in the lines

/data/fxa_local/laps/lapsprd/rdr/001/raw

/data/fxa_local/laps/lapsprd/rdr/009/raw

There is no /data/fxa_local that has to be changed to /data/fxa after that change is made the Laps Radar field is populated as it should.

Problem. Add Byte Count Information for Products Received From LDAD to listener log. (DR 19868)

There is a need to do realistic loading exercises on the AWIPS-2 platform, particularly for products that are ingested. The principal sources for ingested data are from the SBN, WAN, local radar and LDAD. There is sufficient information in the SBN, WAN and local radar log files to compute both message and byte counts for these components. Unfortunately, there is no explicit byte count information for data being ingested from LDAD. We would like to have the incoming byte count information added to the LDAD listener log.

Below is an example of a current entry from the listener log for data ingested from LDAD:

00:00:27.057 listener.c EVENT: do_G_Msg: rcp completed for vadotmet.dat.1199923226

00:00:27.060 listener.c EVENT: do_G_Msg: Preprocessor Command Line = </awips/ldad/bin/preprocess_madis.pl /data/fxa/LDAD/tmp/vadotmet.dat.1199923226 px2f 15009>

We would like the last line in the above to look something like:

> 00:00:27.060 listener.c EVENT: do_G_Msg: Preprocessor Command Line = </awips/ldad/bin/preprocess_madis.pl /data/fxa/LDAD/tmp/vadotmet.dat.1199923226 px2f 15009> length = 678

where the "length" is the size of the product.

Note that the byte count information is available for messages that go out from AWIPS to LDAD using the above "length" nomenclature.

Problem. Small Enhancement: Change MND Product Type line for Red Flag Warning(RFW) in GFE. (DR 19860)

The following description is from Art Thomas:

> *Please open a trouble ticket against the AWIPS Red Flag Warning (RFW) product.*

Specifically, the Mass News Disseminator (MND) Product Type line in the Red Flag Warning needs to be changed: from "FIRE WEATHER WATCH" or "RED FLAG WARNING" (Note: either is selectable now)   to "URGENT - FIRE WEATHER MESSAGE".

This should become a small enhancement Discrepancy Report (DR).

Problem. AF: Modify NCF MHS start up files to support new NDFD servers at the BTG. (DR 19856)

Create three new files in /awips/ops/data on mh5 and mh6 (arch_config.NDFD.ancf, .bncf, and .both) that will contain entries for NDFD servers at the ANCF, BNCF, and both. The symbolic link arch_config.NDFD will point to one of these files indicating which NDFD servers will receive data from MHS. The default will be both. Only in the event of a failure communicating with one site will this need to be changed. The new script "route_ndfd_data" in /awips/ops/bin will be used to change the NDFD data routing. The new script, which can only run from mh6f, will perform the following actions:

1. On mh[56]-[ab]ncf, delete the link /awips/ops/data/arch_config.NDFD and replace it with a link to /awips/ops/data/arch_config.NDFD.<site>, where <site> is specified on the command line.

2. On mh6f-[ab]ncf (the server running the mhs_nwstg package), bounce the package with "hb_halt mhs_nwstg; hb_run mhs_nwstg"

Installation:

1. Copy arch_config.NDFD.* to /awips/ops/data on mh[56] at [ab]ncf.

2. Create symbolic link / awips/ops/data/arch_config.NDFD point to arch_config.NDFD.both on mh[56].[ab]ncf.

3. Bounce the mhs_nwstg package and verify operation with msg_stats and by reviewing the log files.

Problem: AF:Include script as part of dx1apps to clean stale messages. (DR 19895)

Script is to be developed to purge all stale messages under /var/spool/mqueue at dx[12]-<site>. These old messages, if not deleted, generate ITO alarms at NCF and hence needs to be deleted manually by NCF. So appropriate script will be developed to remove these messages and the script will be included as part of dx1apps package at the site dx[12]-<site>.

Problem: AF: Modify NCF MHS start up files to support new NDFD servers at the BTG. (DR 19856)

Create three new files in /awips/ops/data on mh5 and mh6 (arch_config.NDFD.ancf, .bncf, and .both) that will contain entries for NDFD servers at the ANCF, BNCF, and both. The symbolic link arch_config.NDFD will point to one of these files indicating which NDFD servers will receive data from MHS. The default will be both. Only in the event of a failure communicating with one site will this need to be changed. The new script "route_ndfd_data" in /awips/ops/bin will be used to change the NDFD data routing. The new script, which can only run from mh6f, will perform the following actions:

On mh[56]-[ab]ncf, delete the link /awips/ops/data/arch_config.NDFD and replace it with a link to /awips/ops/data/arch_config.NDFD.<site>, where <site> is specified on the command line.

On mh6f-[ab]ncf (the server running the mhs_nwstg package), bounce the package with "hb_halt mhs_nwstg; hb_run mhs_nwstg"

Installation:

Copy arch_config.NDFD.* to /awips/ops/data on mh[56] at [ab]ncf.

Create symbolic link /awips/ops/data/arch_config.NDFD pointing to arch_config.NDFD.both on mh[56].[ab]ncf.

Bounce the mhs_nwstg package and verify operation with msg_stats and by reviewing the log files.

Problem. Chmod error in px section of install. (DR 19854)

When performing the OB8.3 install, I noticed a chmod error in the installLinux section when running post.install_wfoa.sh on the PXs. I traced it to a problem in the LAPS section where it was doing.

Problem: Overhaul Tropical_Overrides formatters. (DR 19851)

Efficiently baseline the Tropical formatters so that they adhere to the design of the text formatter infrastructure, reducing the risk of bugs and simplifying the set-up process.

Basically - due to the speed / lateness of DCS changes in the Tropical_Overrides file, the file was "hacked" so that it would work, but if the WFO need to override anything locally (and they will), it will be difficult and/or error prone.

When Tracy Hansen, Pablo Santos, and I were working on this, we released it too late and were not able to fix the problem before final check-in.

Tracy Hansen at the GSD has already agreed to fix this problem in OB9 if we can add it to the schedule. I would suggest this be done as it will prevent an increased number of trouble tickets.

Problem: Sunrise/Sunset GUI accepts Invalid values. (DR 19848)

The Sunrise/Sunset GUI in D2D allows the user to select values over 12 for the month and values over 31 for the day of the month. Also you can enter values for lat/lon that are non-existent. The GUI still tries to calculate the rise/set times. AN 1/14/08 TBW3 OB8.3 and TBDW OB8.2.

Problem. AvnFPS: MOS category balloon pop-ups sometimes persist. (DR 19845)

Mousing over MOS/LAMP categories in the TAF Viewer/Editor guidance windows shows pop-up balloons that describe it. For example, visibility category 1 corresponds to visibility less than 1/2SM. If an alert message is triggered on a different window, say AvnWatch, the balloon message will not disappear when the mouse pointer is moved away. The pop-up label persists and cannot be removed, littering the desktop. They can only be removed by restarting the entire application.

AvnFPS team is currently investigating this. Replicating the problem is 90% of the fix.

Problem. AvnFPS: Grace period for TEMPO should be optional. (DR 19842)

Aviation focal point wants to have grace period for TEMPO groups waived.

TEMPO "Grace Period"

NWSI 10-813 defines TEMPO conditions in the TAF as "Temporary fluctuations in forecast meteorological conditions which are expected to last less than one (1) hour in each instance and, in the aggregate, to cover LT half of the indicated period." AvnFPS allows the TAF TEMPO group a 1-hour as a "grace period" before forecast conditions, which have not occurred, are flagged. DR 19842 requests the ability to remove the "grace period" and have AvnFPS flag the TEMPO forecast immediately when not matching the current conditions.

Problem. GFE: NAM DNG 5km CONUS: add 8 new elements (RA8-137). (DR 19833)

Ingest 8 new elements for NAM 5km DNG for OB9 per RA8-137

      Percent frozen precipitation

      Transport wind

      12-hour PoP

      6-hour PoP

      12-hour QPF

6-hour QPF

6-hour snowfall

snow level

Note: Data must be received by 03/14/08

Problem. D2D - NAM DNG 5km CONUS: add 8 elements (RA8-137). (DR 19832)

Add 8 elements to OB9 per RA8-137

Percent frozen precipitation

Transport wind

12-hour PoP

6-hour PoP

12-hour QPF

6-hour QPF

6-hour snowfall

snow level

Problem. GFE: add RTMA ingest for Guam (RA8-137). (DR 19830)

Add RTMA ingest for Guam with following 10 elements per RA8-137 for OB9:

Temperature

Temperature analysis uncertainty

Dewpoint Temperature

Dewpoint analysis uncertainty

u wind component

v wind component

Wind Direction

Wind Direction analysis uncertainty

Wind Speed

Wind Speed analysis uncertainty

Note: Clean data must be received by 07/07/08.

Problem. AOR RTMA: add Guam grid to D2D (RA8-137). (DR 19829)

Decoding and display RTMA Guam grid with 10 elements for OB9 per RA8-137

Add Guam RTMA grid to D2D with following 10 elements:

Temperature

Temperature analysis uncertainty

Dewpoint Temperature

Dewpoint analysis uncertainty

u wind component

v wind component

Wind Direction

Wind Direction analysis uncertainty

Wind Speed

Wind Speed analysis uncertainty

Note: Clean data must be received by 07/07/08.

Problem. AOR RTMA: add Puerto Rico grid to D2D (RA8-137). (DR 19828)

Decoding and display RTMA Puerto Rico grid with 10 elements for OB8.3 per RA8-137

Add Puerto Rico RTMA grid to D2D with following 10 elements:

Temperature

Temperature analysis uncertainty

Dewpoint Temperature

Dewpoint analysis uncertainty

u wind component

v wind component

Wind Direction

Wind Direction analysis uncertainty

Wind Speed

Wind Speed analysis uncertainty

Problem. GFE: add RTMA ingest for Puerto Rico (RA8-137). (DR 19827)

Add RTMA ingest for Puerto Rico with following 10 elements per RA8-137 for OB8.3:

Temperature

Temperature analysis uncertainty

Dewpoint Temperature

Dewpoint analysis uncertainty

u wind component

v wind component

Wind Direction

Wind Direction analysis uncertainty

Wind Speed

Wind Speed analysis uncertainty

Problem. GFE: NAM DNG 5km CONUS: add 3 new elements (RA8-137). (DR 19825)

Ingest 3 new elements for NAM 5km DNG for OB9 per RA8-137

>   12-hour Maximum Temperature
>   12-hour Minimum Temperature
>   12-hr Maximum Relative Humidity

Problem: GFE: add RTMA ingest for Puerto Rico (RA8-137). (DR 19827)

Add RTMA ingest for Puerto Rico with following 10 elements per RA8-137 for OB8.3:

>   Temperature
>   Temperature analysis uncertainty
>   Dewpoint Temperature
>   Dewpoint analysis uncertainty
>   u wind component
>   v wind component
>   Wind Direction
>   Wind Direction analysis uncertainty
>   Wind Speed
>   Wind Speed analysis uncertainty

Note: Clean data must be received by 01/04/08

Problem. GFE: NAM DNG 5km CONUS: add 3 new elements (RA8-137). (DR 19825)

Ingest 3 new elements for NAM 5km DNG for OB9 per RA8-137

>   12-hour Maximum Temperature
>   12-hour Minimum Temperature
>   12-hr Maximum Relative Humidity

Problem. Wording change for Inland Hurricane and TS in GFE. (DR 19820)

Policy changes for the 2008 Hurricane season have made inland tropical storm headline wording incorrect. Basically, a text edit is required to remove the word "INLAND" and add the word "WIND" in the headlines generated by the following VTEC phenomena codes: HI (Inland Hurricane) TI (Inland Tropical Storm)

Examples:

>   Current
>
>   .../*INLAND*/ HURRICANE WARNING REMAINS IN EFFECT UNTIL 8 PM CDT TODAY...

../*.INLAND*/ TROPICAL STORM WARNING REMAINS IN EFFECT UNTIL 8 PM CDT TODAY...

To be changed to:

… HURRICANE /*WIND*/ WARNING REMAINS IN EFFECT UNTIL 8 PM CDT TODAY...

... TROPICAL STORM /*WIND*/ WARNING REMAINS IN EFFECT UNTIL 8 PM CDT TODAY...

Problem: GFE: add RTMA ingest for Hawaii (RA8-137). (DR 19813)

Add RTMA ingest for Hawaii with following 10 elements per RA8-137 for OB8.3:

Temperature
Temperature analysis uncertainty
Dewpoint Temperature
Dewpoint analysis uncertainty
u wind component
v wind component
Wind Direction
Wind Direction analysis uncertainty
Wind Speed
Wind Speed analysis uncertainty

Problem. AOR RTMA: add Hawaii grid to D2D (RA8-137). (DR 19800)

Decoding and display RTMA Hawaii grid with the following 10 elements for OB8.3 per RA8-137:

Temperature
Temperature analysis uncertainty
Dewpoint Temperature
Dewpoint analysis uncertainty
u wind component
v wind component
Wind Direction
Wind Direction analysis uncertainty
Wind Speed
Wind Speed analysis uncertainty

Problem. WarnGen: incorrect grammar used in warning product. (DR 19790)

It was common for WarnGen to create text products with bad grammar like the following example: "OR ABOUT NEAR WORCESTER"

It will always occur when the centroid is positioned near the city that will be stated in the text product. This DR is identical to DR 18565, except that this DR is just for EWW and EWS products. The other templates use correct grammar.

Problem. OB8.2 Local menu Under DR19646, changes were made to the D2D menu. (DR 19784)

These include moving the local warnings and LSR displays from the NCEP/Hydro menu to the Obs menu, and moving the Local Analysis/Statistical Guidance items to a new top-level Local menu. This change was made very late in the OB8.2 development process, and without standard review. The AWIPS UIWG recommends that the items from the new Local menu be moved into the Obs menu, and that menu be renamed Surface, returning to the name used in early versions of AWIPS. (In general, we avoid adding top-level menus, since menu-bar real estate is limited. Recent additions of Aviation (OB8.2) and Env (OB8.3) top-level menus were revised to pull them into existing menus. In addition, the newly-created Local menu is very short, and can easily be placed in the Obs/Surface menu, where it more logically fits with related products.) Another change in the revised menu rearranges the Hazards section to keep Lightning at the top.

This is tagged Critical because it would be better to make this simple change (only dataMenus.txt and dataMenus.AK.txt are affected) for OB8.2 than to have a Local menu for a short while which then is removed again in OB8.2.1, for example.

Problem. LDAD Decoder accepts observations from the future. (DR 19744)

Recently, some reports from the "gpsmet" mesonet have had a few observations with a future date and time. The LDAD decoder accepts these observations and makes them available in for D-2D.

When mesonet observations are loaded, the "most recent" frame will show the invalid future observations. Besides being invalid, this causes confusion because it looks like most stations are missing.

The decoder should reject these observations.

Workaround: Filter out bad values in the preprocessor.

Problem. Update not working on D2D text window. (DR 19743)

The update option on the D2D text window isn't working. Load METARs for a site and select the update button. The new obs come in, but the text window doesn't update. This does work for the text window on the text workstation.

Problem. SNOW:Using SNOW monitoring area GUI incorrectly shows a SAFESEAS title. (DR 19673)

Using the SNOW monitoring area GUI produces a change- confirmation popup with a title incorrectly referencing SAFESEAS instead of SNOW.

This is a cosmetic issue that does not affect the usage of the application.

Problem: Problem w/ VTEC coding cancelling and extending same product. (DR 19702)

Here is the email sent by the site:

> *11/30/2007 12:48:46 RichardO*
>
> *Below is Ron's email, site is 8.2*
>
> *Craig, Steve--*
>
> *For the record, we were contacted by Accuwx (John) this afternoon regarding a bad WSW product that we had issued earlier this morning (348am). Upon closer inspection by Ron and others, it appears there may be a bug in the GHG software.*
>
> *From the segment below, two distinct VTEC lines were coded (CAN and EXB event codes) for the same SN.Y (event tracking number 0021) on the 348am product. Those are obviously conflicting event codes-- hence the problem on the user end. I had mentioned that several of us received an automated email notification early this morning (see below), which seemed to surprise him a little bit as he wasn't aware that problems like this were being monitored at WSH. Anyway, I didn't dwell on the details.*

The following are the steps necessary to reproduce the problem:

1. Using MakeHazard, create a SN.Y, adding a 1 to the segment box, for a
2. few zones for 1 hour, click Run
3. Create a SN.Y for adjacent zones for 6 hours, adding a 2 to the
4. segment box, click Run and Dismiss
5. Merge Hazards
6. Save and Publish
7. Run WSW and Transmit
8. Separate Hazards
9. Delete SN.Y:1 grid
10. Split the SN.Y:2 grid so that the first hour is separate
11. Delete the first hour grid of SN.Y:2
12. Using MakeHazard, create a new SN.Y:1 grid starting at the next hour
13. and going for 5 hours
14. Merge Hazards
15. Save and Publish
16. Run WSW. Not the CAN/EXB for the SN.Y:1 segment. Also note the invalid EXT for the SN.Y:2 segment as the valid times are still the same.

Problem. River Monitor: RiverMonLocation GUI too narrow; location ordinal data hidden. (DR 19670)

When first starting the RiverMon Location GUI from River Monitor (Config -> RiverMon Location), the GUI is so narrow that the values in the Location Ordinal column are hidden (see attached image file). The workaround is to make the other columns thinner or by widening the size of the GUI window.

Problem: RadarTextDecoder dies when failed over. (DR 19616)

At PTR it was noticed that the RadarTextDecoder and associated "DataController COMMS_ROUTER TextDB2_Controller" processes had died when both dx1apps and dx2apps were running on the same server. This has been verified on TBDR (Testbed RFC) and TBW3 (Testbed WFO). To test, fail over the heartbeats to the same server (it doesn't matter which one). Usually by the end of the day the processes will have died.

Problem: Discontinuity between radar and satellite in the SRG field. (DR 19589)

The discontinuity between radar and satellite in the SRG field continues to be an issue particularly in data sparse regions. In the Rio Grande River Basin, where no hourly gauge data is currently available in Mexico, the local bias field only extends a few miles to around 50 miles beyond the Rio Grande. This results in a discontinuity in the LSATPRE, where it reverts to the unbiased SPE beyond the range of the local bias value field. This results in a discontinuity in the estimates on the LSATPRE and therefore the SRGMOSAIC.

Problem. Can't display GFE RTMA D2D error analysis contours. (DR 19583)

In GFE, when you load the D2D RTMA error analysis fields, the contour will not display. The user can display the field as an image and the IFP RTMA error analysis fields do contour.

This problem occurs because the default range in the AKrtmaNDFD.cdl and rtmaNDFD.cdl files for the error analysis fields is so large. Here's an example:

```
 //    temperature       float
       terranl(record, levels_1, y, x);
       terranl:long_name = "Temperature error analysis";
       terranl:units = "K";
       terranl:udunits = "degree_Kelvin";
       terranl:uiname = "ErrorAnalysisT";
*      terranl:valid_range = -330.f, 330.f;*
       terranl:_FillValue = -99999.f;
       terranl:_n3D = 1;
       terranl:levels = "FHAG 2";
```

The actual range is about 0-10 for temperature. The range for each variable should be set to meteorologically reasonable values.

This problem was discovered while testing DR 19476.

Problem. TBW4 HWR Reports do not display. (DR 19562)

After setting the system time to December 4, 2007 (one month into Standard Time) the HWR reports created showed the correct time (Standard) but the time stamp was still AKDT.

The time stamp should read AKST.

Problem. Fog Monitor - "dot" files left in user's home directory. (DR 19518)

The Fog Monitor leaves some "dot" files in the user's home directory. Over a period of testing for a couple of months, around 10-15 files have accumulated, so it's not a lot of files. The program should either clean up the files as it exits or write them to a directory like /tmp that will be cleaned up. The home directory where they are written now is a mounted directory, so I don't know if it would cause a problem to write them to a local directory like /tmp.

Problem. bufrdecoder log messagjavascript:top.frames['titles']e doesn't match what it did. (DR 19468)

When decode some May QuikScat data, the log message says it wrote the data to file 20070914_1200, but actually it didn't.

Procedure:

1. unzip quikscat.zip
2. copy ISXX* to /data/fxa/ispan/bufr/QuikScat
3. cd /data/fxa/point/QuikScat
4. mv netcdf netcdf.orig
5. mkdir netcdf
6. cd netcdf
7. cp ../netcdf.orig/template .
8. wait until all data are decoded
9. check the log. It says it writes data to the latest netCDF file, but didn't.
10. go to /data/fxa/point/QuikScat/netcdf
11. 20070511_1300 created but not in the log.

Problem: FSI delivered radar product list. (DR 19588)

The WDTB discovered that the list of radar products to handle for FSI included the wrong Spectral Width product. This needs to be corrected. The existing product only goes out to a range of 32 nmi. The fix involves a change only to one text file. If this is accepted into OB8.2, then we need to get this into OB8.3 as well.

Problem: Fog Monitor - Occasional tcl error when scrolling/selecting. (DR 19426)

Occasionally while scrolling or selecting I get the tcl error

Problem. GW: Unclear menu options for CAPE variable in Volume Browser. (DR 19216)

During PIT forecaster testing, it was noted that the Volume Browser menu options for various CAPE parameters are many and potentially confusing.

The available options are:

Pos Buoy En - available at Surface, BL and Layer levels (Layer was the level added for the RUC13 project)

Computed CAPE - available at various levels

Downdraft CAPE - surface only

MU CAPE   - (most unstable CAPE) - available at various levels

Low Lvl CAPE - available at a few levels

Pos Buoy En is used for CAPE that comes in with the data; the other four are computed by AWIPS.

A specific enhancement was not detailed. Clarification of requirements by government is needed in order to go forward on this DR.

Problem. Name convention for "NamDNG5". (DR 19214)

The name in the Volume Browser should be changed. All the other "NAM" -related sources use the naming convention such that "NAM" is capitalized, but here you refer to the downscaled guidance as "NamDNG5", with a little "a" and little "m".

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Problem. RFC DailyQC -- Group edit menu should not have 'Questionable'. (DR 20220)

While doing DailyQC, opened the Group edit menu and selected 'Questionable'. The data value on the map turned yellow to signify a Questionable reading, but when the menu was closed, it reverted to its original color (white). The Questionable category should not be available to the user, since it is determined by the internal algorithms.

Problem. LDAD lvol resize needed {partitions filling up}. (DR 20182)

Post Gnu/Linux LDAD upgrade various logical volumes (lvol) in volume group VG00 become full, i.e., reaching 100% of capacity. This is due to the partitioning schema used, which allocates too much or too little to various levels without taking into account operational usage/functionality.

A resizing is needed to avoid further full partitions and to elevate the currently bloated ones.

Problem. Guam cannot create SHEF.B encoded products. (DR 20049)

Per Art Thomas / NWS
(301) 713-1867 x193

> *AWIPS SHEF.B encoder software needs to allow WFO Guam to create SHEF.B-encoded products and designate Chamorro Standard Time (Guam) (UTC+10 hours) as a valid Time Zone Designator ("tz").*
>
> *Also, the time zone for Pago Pago needs to be added as well, which is Samoa Time Zone (UTC minus 11 hours)*
>
> *Currently, it doesn't see these time zones as valid, and the SHEF.B products can not be created.*

Problem. WarnGen performance degraded during severe weather. (DR 20041)

Multiple WFOs have reported that WarnGen responds slowly when in severe weather operations. In trouble ticket 322842 HGX reported that on all workstations WarnGen was taking 1 - 2 minutes to start and then there was an additional/similar delay in starting WarnGen's create text window.

An analysis of WFOs that have reported slow WarnGen response during severe weather indicates that there is a marked increase in the number of products requested from the Postgres fxatext database. The number of products read from the database can be so high that it slows down WarnGen's access to read products from the database. For example WFO CRP normally requests approximately 300 products per hour from the fxatext database but on 3/10/2008 CRP's severe weather operations was requesting up to 5778 products per hour. It appears that the D2D Local and the D2D Regional Warning displays are requesting such a large volume of products from the Postgres fxatext database that all access to the fxatext database is slowed down.

Symptoms of WarnGen's slow fxatext database access are:

- WarnGen is slow to start and slow to start the create text window.

- WarnGen resets the Event Tracking Number (ETN) to 1 because WarnGen's database request for the current product's ETN times out.

- WarnGen does not list the warning products in the follow up list because WarnGen is still waiting for the database to provide those products.

Trouble tickets that describe these problems are:

TT 322842 HGX 02/16/2008 WarnGen and D2D running slow.
TT 322847 HGX 02/17/2008 WarnGen reset ETN to 1.
TT 323499 TAE 02/23/2008 WarnGen slow to respond.
TT 324486 MRX 03/04/2008 Warnings not in WarnGen's follow up list.
TT 324473 PBZ 03/04/2008 Warnings not in WarnGen's follow up list.

Problem. WarnGen's QC failing because it doesn't like the word "Parish". (DR 20018)

The problem at LCH relates to WarnGen's Quality Control (QC) checking. From what we can tell WarnGen expects the geographic region to be called a "County" but in Louisiana the geographic regions are called a "Parish". WarnGen's QC appears to be failing because it doesn't like the word "Parish" in the SVRLCH product to describe the geographic region.

Problem. Enhance Grib2Decoder to decode multiple parameters in single GRIB message. (DR 19965)

Jay Smith of AFG proposes an enhancement to the AWIPS Grib2Decoder to give it the ability to decode GRIB messages which contain more than a single data parameter. For data that come over the SBN this is not a problem because they are split into separate messages by NCEP before being sent. Some data that field sites get from the NCEP ftp site are not split in this way. Jay Smith describes the situation as follows:

> *Apparently, a new feature with the grib2 standard is that a grib2 "message" can contain data for more than one parameter. What I mean by message in this case is a file that has one single instance of the ASCII string "GRIB" at the beginning and one single instance of the ASCII string "7777" at the end. I don't actually know how the encoding is accomplished. I suspect there are multiple "product definition" sections and multiple "data" sections. In any event, the parameters u-wind component and v-wind component are delivered in one grib2 message in the data sets on the NCEP/NWSTG FTP servers. The AWIPS Grib2Decoder, when given a grib2 message containing more than one parameter, will only decode the first parameter it encounters in the message. In our situation, this means the u-wind component is the only wind information decoded. Since all of the display software needs both components to present wind information, the lack of a decoded v-wind component means there are no wind data to display.*

> *My contention is that the since the grib2 standard allows for "sub messages" inside a grib2 "message", then the Grib2Decoder needs to be able to correctly handle that situation. For now, I pre-process the data I retrieve from the FTP servers. When I find a grib2 "message" containing the u- and v-wind components,*

> *I use the wgrib2 program to extract the two sub messages and create individual grib2 files.*

Problem: NWRWAVES does not suppress NWRSAME Tone during the silence period when "NWR Only." (DR 19957)

The current NWRWAVES OB8.3 or older version does set the alarm flag to a <blank> when the "NWR Only" option is selected which is fine during the unsilence period. However during the silence period NWRWAVES should suppress the Alert Tone (1050 Hz) as well as the NWRSAME Tone regardless to what are being selected by the forecasters. The alarm flag should be set to "N" in order to suppress both Alert and NRWSAME Tones.

The temporary solution is to select "off" for this option instead of "NWR Only". This will be fixed in NWRWAVES version OB9.

Problem. Small Enhancement: Add path in GFE for satellite data in OCONUS baseline. (DR 19956)

Bob Ballard at HFO would like the satellite data in GFE for the OCONUS to be available in the baseline; they currently get it with a local override in Hawaii.

Problem. OB8.1: Heartbeat hangs when stopping dx4 apps during postinstall. (DR 19925)

Originally fixed in DR 17546, the problem has returned. During the postinstall script for any install, dx4apps are halted after dx3apps. The stopIngest.dx4 script incorrectly sshes to dx3f, instead of dx4f, to announce that the package is down (via call to fxaAnnounce). Because dx3f is inaccessible, the script hangs at this point.

Workaround: Manually kill the ssh processes that launches the announce process. But regardless, this problem is artificially increasing the installation times at all sites.

Problem. Riverpro doesn't always account for VTEC information properly. (DR 19908)

If a user creates a VTEC product in Riverpro, then un-highlights one of the forecast point locations from the forecast point list prior to issuing the product, and then issues the product without re-creating it, the public product will include all of the locations originally highlighted to be included. However, the VTEC information stored in the hydro database will NOT include the location which was un-highlighted. As a result, the Riverpro application will not have a record of the VTEC information for a location which has been included in a public FLW/FLS product.

Problem: Hydro Database Manager: Could not enter new River Gage Data. (DR 19887)

During testing of the Hydro Database Manager on TBW3 for OB8.3to save data for a new River Gage, the following problem was noted.

An error dialog appeared with the message, "Unable to insert record: -400." The log displayed the following:

>   PutRiverstat() in Insert section -- ERROR
>   SQLCODE = (-400 sql state = (22008)

Error Message ('date out of range: "5881610-07-12"' in line 808.)

Workaround: To prevent/resolve the Date Field Error in River Gage, make sure valid dates are entered in the red circled fields below. In order to access the second screen, do the following step:

In the top left corner of the River Gage window, there is the option menu labeled "Page" with a value of "Geophysical". This window is actually a form with multiple pages. Select the next/additional page from that option menu (under Page); you will see a new page of info swapped into the display called "Additional info". That is where the other date field called "Date of Rating" is located. Filling the date in the second page will allow the user to successfully save the river gage data.

Problem. RAX Raw SHEFdeocder Running Slow (DR 19883)

Problem: Localization: Do not remove userMotion.txt file during full ws localization. (DR 19867)

Localization: Do not remove userMotion.txt file during full workstation localization. Instead, reset the storm motion vector to a default value. This will prevent the annoying FSI pop-up window seen when users have not yet set the storm motion vector on their workstation.

MDL believes that this DR may be another group's domain. We do not know the full reason why this file is removed upon localization.

Problem. NWRWAVES - Introduction words not being output in the NPW products. (DR 19864)

The NPW formatters are not properly formatting the products, including wind advisories and high wind warnings. "for the following areas" is missing before "in south dakota". It is still a problem if the segment only contains one zone.

Problem. Climate - missing column in CLM product. (DR 19859)

The EWX site found that in running the CLM product for the month of December for KSAT, KAUS, KATT, and KDRT, the data for last year's data that is missing.

Problem. OB8.1: Problem in GFE switching from Public to FireWx to Public grids. (DR 19857)

UNR reported the following problem with their GFE:

Whenever they switch from Public to Fire Wx grids, and then back to Public grids, some of the elements are "blacked" out (i.e., when we click on a grid, we get a black/empty display). In order to remedy the problem we have to close GFE and then restart it.

This problem is intermittent, but occurs fairly frequently according to the site.

Surrounding sites can see the elements - the problem is just with the display, not with the data. It causes them problems though when they don't know what values their data is. It usually occurs with a particular element, such as Td.

We tried to reproduce the problem a few times on NHDA as well as by logging onto the site remotely, but were unable to.

Problem. OB8.1: AX shef_decode_pro Application Requiring Full 7 Character SHEF Code. (DR 19855)

In a recent new build of the RFC Archive Server (RAX) application shef_decode_pro requires the full 7 character SHEF code to be specified or the decoder will not post the data. In previous builds of this decoder, default values were assumed for any missing characters. This is important in that the punch routine within NWSRFS generates files containing data output that does not include the full 7 character SHEF code, files that are sometimes used as input to shef_decode_pro.

The method of assuming default values in data handling is in current used in the RAX application shef_decode_raw. At present time, each RFC utilizes its own locally developed workarounds with varying degrees of success.

Problem. Riverpro doesn't output forecast information in Forecast and Warnings. (DR 19843)

Within Riverpro, the user has the option to use a template variable called <FcstTrend>. When this variable is used, a complex algorithm analyzes the forecast time series and outputs one or more lines of text describing in words the river forecast. This variable – and the process behind it – were implemented as a result of specific requirements generated by the forecast offices in California. These offices have a formal relationship with the state of California which dictates, among other things, the format of hydrologic forecast and warning products.

Under certain flow conditions, including high-water conditions, the worded output associated with the forecast trend variable is not being output in the product. As a result, WFO staff must cut-and-paste words from the RFC guidance product and place them in the official forecast and

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warning products. This cut-and-paste action results in additional workload for the staff, and delays the issuance of critical forecast and warning products.

Problem: GFE: product editor giving errors upon loading product. (DR 19826)

Several offices have been prevented from issuing corrections to hazard products or updates where the product is being loaded from a draft. The product editor, which is used for both of these actions, is not loading the VTEC active table and therefore cannot run through some of the necessary code.

This issue has affected several sites including LWX, GYX, SLC, MLB.

Workaround: A workaround for most situations is to run the same PIL, then in the same tab load the draft.

Problem. CLI: GUI for Initializing Database. (DR 19821)

Site LOT reported that the GUI for Initializing Database for Climate behaved strangely. When switching from one station (Rockford) to another (Chicago), Everything changed to 9999.0. The GUI was tested on NHDA for one station that has all missing data for several days. Add data to one day, then click arrow button to change to another day. It is supposed all the data will be missing. However, the data just entered still stays there. Another test was conducted for BALTIMORE and PITTSBURG. Choose a day that both BALTIMORE and PITTSBURG have no data. Add data to BALTIMORE, then switch to PITTSBURG. The data just entered stays in there for PITTSBURG. Error messages showed up from the window that the GUI was started. The error messages are "Run time error occurred!

ERROR: SQLSTATE=22002

NULL value without indicator in line 377"

Problem. Small Enhancement: Allow Grid Selection for the MPEeditor Multihour Accumulation. (DR 19817)

The MPE Editor includes a function which allows the user to build a multi-hour accumulation grid from the computed, hourly grids. Currently, this features only allows accumulations for the Best Estimate QPE field. It should allow accumulations to be generated for any generated precipitation grid.

Problem. Small Enhancement: Include All Grids in MPEeditor Gage Table. (DR 19816)

The MPE Editor gage table lists the gage value and estimated precip value for the grid bin containing the gage from the assorted gridded estimates. Over the years, additional grid types have been added to MPE operations but these have not been recognized in the gage table. These grid types need to be available based on which grids are generated as per local office settings. The gage table should have a search text field to enable the quick location of a specific gage in the table.

Problem. Small Enhancement: GUI Changes to Support Forecast Services. (DR 19809)

The graphical interface which supports the identification of logistical verification measures for forecast services requires some modifications and enhancements based on field input. These modifications/enhancements include:

1. When deleting an entry, 2 pop-ups are initiated: one confirming that the user wants to delete the entry and a second one indicating whether the delete was successful. The second pop-up should only be initiated if the delete was unsuccessful

2. When a change is made to an attribute which is part of the database table primary key, a new entry is created and the user must delete the old entry. These changes via the GUI should result in an Update action, not an Insert action, so the user does not need to delete the original entry.

3. The messages in the database message box are listed with the oldest messages at the top. The order should be reversed so that new messages are listed at the top.

4. Within the GUI, data entry boxes for columns with NULL values are displayed with a dash (-). If there is more than one NULL field, and the user attempts to update only one field, an SQL error occurs because the GUI attempts to load the dash as a value into the database table.

5. The user should have the ability to refresh the main Point Services Data Management window after updates to location or river gage information are made. Currently, the user must close the GUI and re-open it for these changes to be recognized.

Problem. Small Enhancement: Database Changes to Support Forecast Services. (DR 19808)

The database tables which support the forecast services function require some modifications and enhancements based on user feedback. These modifications include:

1. Including an "Other" option for all lookup tables
2. Adding a "Verification Response Type" column to the fcstptservices table
3. Add a "Drainage Area" column to the fcstptservices table
4. Add a "VAR Usage" column to the fcstptdeterm and fcstptesp tables

Problem. In CF6 the starting/ending dates for GRTST 24HR Precip. may be misleading. (DR 19770)

Terry Benthall at GSP reported that the greatest 24-hour Precip of 0.96 at CLT occurred completely on the 11th (ASOS was right), however, AWIPS said that 0.96 occurred on the 10-11. No precip occurred at CLT on the 10th of June. Logically speaking, there was nothing wrong, but it was misleading. If the GRTST 24HR Precipitation occurs completely within one day, the starting/ending dates should be the same.

Problem. Small enhancement: Change SAF formatter in GFE to recognize practice mode. (DR 19762)

Matt Jackson at TFX opened ticket 316572 and posted on the ifps listserve that he was using the SAF formatter in GFE in practice mode and the product he created went out.

Dave Metze and Mark Mathewson both responded that the SAF is designed to send anything it gets to CRS - it doesn't recognize practice mode.

Mark Mathewson said though that the SAF could be changed to recognize practice mode. I am writing this DR to put that small enhancement into the SAF in GFE. I have attached the ifps listserve thread to the DR.

Problem. GFE: products have an extra space when stored. (DR 19761)

PDT reports that a space is added at the end of the transmission time at the first line for routine issuances when products are stored (via File->Store...). This extra space creates a problem with one of their archiving programs.

Problem. Small enhancement: Add LB.Y hazard to GFE baseline AreaFcst allowedHazards. (DR 19760)

John Rozbicki at BUF would like the LB.Y hazard (Lake effect snow and blowing snow advisory) added to the baseline AreaFcst allowedHazards method in GFE, in order to make it part of the baseline ZFP formatter.

There was some discussion from others in agreement from other offices in his email (Matt Belk, Harry Gerapetritis, Robert Radzanowski, see ticket attached to DR).

Problem. Minor bug in F6 calculation of mean monthly temperature. (DR 19746)

Terry Benthall from site GSP opened ticket 316204 to report a problem with the climate F6 product that has been occurring for as long as he can remember. The issue is that the calculated mean monthly temp is often coming out by 0.1 different than it should be - it looks like it's being truncated instead of rounded. This can easily be fixed.

Problem. Small enhancement: Add LSR to TMCP. (DR 19745)

Melissa Smith (melissa.smith@noaa.gov) opened up TT 316449 concerning LSR in practice mode.

The issue is that LSR has its own practice mode, but if you put the whole workstation in practice mode and then create a local storm report, it can still be transmitted. That's because the test mode control program doesn't allow any products to be sent out from the text workstation, but LSR doesn't use the text workstation, thus it's not covered.

The enhancement would be to add some code in the TMCP application and in the LSR application so that TMCP does not allow LSR to send out products while the workstation is in practice mode.

This could also be covered by training (tell forecasters to use the LSR's own practice mode, not workstation practice mode) or be a release note.

Problem. IDMA Not Following Correct Order Setup. (DR 19732)

Whenever a precipitation file name, under the @O card, begins with "AR", IDMA incorrectly labels the time series data. IDMA follows the order of the @F cards rather then the order setup

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under the @S card. When the precipitation file name is changed to begin with "ar", a number, or other letter combinations, the problem does not occur.

Problem. HydroGen doesn't retrieve flow-based crest values. (DR 19708)

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.

Problem. HydroGen not using Shifted Rating Curve. (DR 19707)

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.

Problem. HydroGen doesn't handle discharge locations properly. (DR 19706)

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.

Problem. GFS161 grid headers should be removed from CONUS acq_patterns.template. (DR 19705)

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

Southern Region should be consulted to see whether any CONUS sites there are using this data. If so, such a site should be set up to ingest the data, but other CONUS sites should not.

12/26/2007 - Update from Jamie Vavra:

> *On December 18th, the DR Team members reviewed DR 19705 /GFS 161 grid headers should be removed from CONUS acq_patterns.template/.*

> *The following systems require access to the GFS161 data: Puerto Rico, Miami, Melbourne, and Southern Region Headquarters (EHU)*

Problem: New ls2/ls3 ldad sendIPCmessage error in CO_serv. (DR 19699)

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.

Workaround: None known.

```
----- offending code in co_serv.c -----
      else if (dataTransferMessage == 'V')
      {
      ipcMessage = (struct ipcMsg*) &line[0];

      ipcMessage->msgContents[sizeof(ipcMessage->msgContents)-1] = '\0';

      sscanf(ipcMessage->msgContents,"%hu %s",
            &clientPort, clientName);
      ipcMessage->msgContents[0] = 0;

      msgSize = sizeof(IPC_MSG);

      sendIPCmessage((char*) ipcMessage, msgSize,
            clientPort, clientName);

      exit(0);
      }

----- offending code in sendIPCmessage.c -----
      /* Connect to the server */
      if (connect(sockfd, (struct sockaddr *) &serv_addr, sizeof(serv_addr)) == -1)
```

```
        {

        logProblem << "sendIPCmessage: connect FAILED: "
        << strerror(errno) << std::endl;
        for (i=0; i < MAXPORTS; i++)   /* add specifics about port to error msg */
        {

        if ( hostPort == portinfo[i].portnum )
        {

        logProblem << "Host port is: " << hostPort << ", "
        << portinfo[i].portmsg << std::endl;
        }

        }
        return;
        }
```

Problem. INSTALL: Sendmail queue build up dx3, dx4, and px2 (et al) are queuing up outbound SMTP messages. (DR 19687)

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.

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

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.

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)

Reference DR: 19591:

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. No PX4 scour cron means Log files accumulate at Alaska sites. (DR 19650)

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.

Problem. OB8.1: 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 (OB8.2). 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 request the issue be escalated to a DR. In addition, we believe 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 desktop 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 checked 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 consistently 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).

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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. 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 that do not have a definition in customFiles would have a zero threshold for area inclusion.

Problem. WarnGen:Vertices should be locked for CORs (Ref OB8.3 DR 19796). (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 follow-ups. 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. (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. OB8.1: 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.

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.

  b

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

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. 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 It'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 IDs. 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 (unsuccessfully so far).

Problem. D2D: Pane resets when sampling product. (DR 19528)

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."

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

Work around: Sample each frame manually without turning on sampling (and by avoiding sampling and advancing the frames at the same time.)

> *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 select 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 don't want the lowest 50mb retrain in it. They have surveyed(informally) several forecasters in their 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. OB8.1: 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; it's just that the graphic is causing confusion for some of our customers.

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:

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/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

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

Problem. PostGres missing awips2nwr table. (DR 19453)

While testing Baseline_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."

Asked Sean Webb about it and we 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 text database 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, March 2005.)

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

Wayne Weeks submitted the following enhancement request:

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.

Sincerely,

Wayne Weeks
wayne.weeks@noaa.gov
Meteorologist
Marine and Coastal Weather Services Branch
National Weather Service 301-713-1677 x 129

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: 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.

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Raytheon

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

4-bit data may be substituted 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 January, it does not seem to be working now.

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

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

OFS FCINIT & FCST

When attempting to define segment 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 TRANSFER 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.

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Problem: HDB: On the Station List & Station Info windows the Columns does not align. (DR 19133)

On the Historical Data Browser system, the data descriptions do not align with the Column headings under the Station Information and Station List windows.

Problem: Text window version menu items stuck in disabled state. (DR 19053)

The version menu mysteriously get grayed out.

Steps to reproduce:

1. Create tear-off menu for the Version menu
2. Click in WMO entry box (Version menu and tear-off items will be disabled.)
3. Close tear-off menu.
4. Click in AFOS entry box (Version menu will be re-enabled, but the individual items will remain disabled.)

This is a due to a error in the Text Window user interface code. Although the problem was reported during OB8.1 beta, it is clear that this problem has been present since at least OB4.

Workaround is to create a tear-off menu again, click in the WMO entry box, and then click in the AFOS entry box.

This problem can hinder the work of forecasters who do not know the workaround.

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. This Trouble Ticket was discovered by Tim Helble on the NHDA System and was passed on 4/16/2007.

The current wording is:

New FFW: * FLASH FLOOD WARNING FOR A DAM FLOODGATE RELEASE IN

FFS CON: ...A FLASH FLOOD WARNING FOR A DAM FLOODGATE RELEASE REMAINS

IN EFFECT UNTIL

FFS EXP: ...THE FLASH FLOOD WARNING FOR A DAM FLOODGATE RELEASE HAS EXPIRED FOR

FFS CAN: ...THE FLASH FLOOD WARNING FOR A DAM FLOODGATE RELEASE HAS

BEEN CANCELLED FOR

The correct wording is

New FFW: * FLASH FLOOD WARNING FOR HIGH UPSTREAM RESERVOIR
       RELEASES

IN

FFS CON: ...A FLASH FLOOD WARNING FOR HIGH UPSTREAM RESERVOIR
RELEASES

IN EFFECT UNTIL

FFS EXP: ...THE FLASH FLOOD WARNING FOR HIGH UPSTREAM RESERVOIR
RELEASES HAS EXPIRED FOR

FFS EXP: ...THE FLASH FLOOD WARNING FOR HIGH UPSTREAM RESERVOIR
RELEASES HAS EXPIRED FOR

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.

The current wording is:

New FFW: * FLASH FLOOD WARNING FOR VOLCANIC SNOW MELT IN

FFS CON: ...A FLASH FLOOD WARNING FOR VOLCANIC SNOWMELT
REMAINS IN EFFECT UNTIL

FFS EXP: ...THE FLASH FLOOD WARNING FOR VOLCANIC SNOW MELT HAS
EXPIRED FOR

FFS CAN: ...THE FLASH FLOOD WARNING FOR VOLCANIC SNOW MELT HAS
BEEN CANCELLED FOR

The correct wording is:

New FFW: * FLASH FLOOD WARNING FOR EXTREMELY RAPID SNOWMELT
CAUSED BY VOLCANIC ERUPTION IN

FFS CON: ...A FLASH FLOOD WARNING FOR EXTREMELY RAPID SNOWMELT
CAUSED BY VOLCANIC ERUPTION REMAINS IN EFFECT UNTIL

FFS EXP: ...THE FLASH FLOOD WARNING FOR EXTREMELY RAPID
SNOWMELT CAUSED BY VOLCANIC ERUPTION HAS EXPIRED FOR

FFS CAN: ...THE FLASH FLOOD WARNING FOR EXTREMELY RAPID
SNOWMELT CAUSED BY VOLCANIC ERUPTION HAS BEEN CANCELLED FOR

**Problem. OB8.1: 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: incorrect wording for Ice Jam Break. (DR 18971)

In the non-convective FFW, if you choose Ice Jam Break 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 Ice Jam Break should be renamed Ice Jam. This Trouble Ticket was discovered by Tim Helble on the NHDA System and was passed on 4/16/2007.

The current wording is:

> New FFW: * FLASH FLOOD WARNING FOR AN ICE JAM BREAK IN FFS CON: ...A FLASH FLOOD WARNING FOR AN ICE JAM BREAK REMAINS IN   EFFECT UNTIL

> FFS EXP: .THE FLASH FLOOD WARNING FOR AN ICE JAM BREAK HAS EXPIRED FOR

> FFS CAN: ..HE FLASH FLOOD WARNING FOR AN ICE JAM BREAK HAS BEEN CANCELLED FOR

The correct wording is:

> New FFW: * FLASH FLOOD WARNING FOR ICE JAM FLOODING IN FFS CON: ..A FLASH FLOOD WARNING FOR ICE JAM FLOODING REMAINS IN EFFECT UNTIL

> FFS EXP: ..THE FLASH FLOOD WARNING FOR ICE JAM FLOODING HAS EXPIRED   FOR

> FFS CAN: ..THE FLASH FLOOD WARNING FOR ICE JAM FLOODING HAS BEEN CANCELLED FOR

Problem: WarnGen: incorrect wording for Glacial Lake Dam Outburst. (DR 18970)

In the non-convective FFW, if you choose Glacial Lake Dam Outburst 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 Glacial Lake Dam Outburst should be renamed to Glacial-Dammed Lake Outburst.

This Trouble Ticket was discovered by Tim Helble on the NHDA System and was passed on 4/16/2007.

The current wording is:

> New FFW: * FLASH FLOOD WARNING FOR A GLACIAL LAKE DAM OUTBURST IN FFS CON: ...A FLASH FLOOD WARNING FOR A GLACIAL LAKE DAM OUTBURST REMAINS IN EFFECT UNTIL FFS EXP: ..THE FLASH FLOOD WARNING FOR A GLACIAL LAKE DAM OUTBURST HAS EXPIRED FOR

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> FFS CAN: ..THE FLASH FLOOD WARNING FOR A GLACIAL LAKE DAM OUTBURST HAS BEEN CANCELLED FOR

The correct wording is:

> New FFW: * FLASH FLOOD WARNING FOR GLACIER-DAMMED LAKE OUTBURST FLOODING IN FFS CON: ..A FLASH FLOOD WARNING FOR GLACIER-DAMMED LAKE OUTBURST FLOODING REMAINS IN EFFECT UNTIL

> FFS EXP: ..THE FLASH FLOOD WARNING FOR GLACIER-DAMMED LAKE OUTBURST FLOODING HAS EXPIRED FOR

> FFS CAN: ..THE FLASH FLOOD WARNING FOR GLACIER-DAMMED LAKE OUTBURST FLOODING HAS BEEN CANCELLED FOR

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.

The current wording is:

> New FFW: * FLASH FLOOD WARNING FOR A LEVEE FAILURE IN

> FFS CON: ...A FLASH FLOOD WARNING FOR A LEVEE FAILURE REMAINS IN EFFECT UNTIL

> FFS EXP: ...THE FLASH FLOOD WARNING FOR A LEVEE FAILURE HAS EXPIRED FOR

> FFS CAN: ...THE FLASH FLOOD WARNING FOR A LEVEE FAILURE HAS BEEN CANCELLED FOR

The correct wording is:

> New FFW: * FLASH FLOOD WARNING FOR LEVEE FAILURE FLOODING IN

> FFS CON: ...A FLASH FLOOD WARNING FOR LEVEE FAILURE FLOODING REMAINS IN EFFECT UNTIL

> FFS EXP: ...THE FLASH FLOOD WARNING FOR LEVEE FAILURE FLOODING HAS EXPIRED FOR

> FFS CAN: ...THE FLASH FLOOD WARNING FOR LEVEE FAILURE FLOODING HAS BEEN CANCELLED FOR

Problem. OB8.1: 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.

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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 an SVR in effect.

Jim Ramer says:

> *This is not doable 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.*

4.0   RELEASE OB7.2

Problem. Archiver failed to archive directories that are several sub-directories down.

Archiver failed to archive directories that are several sub-directories down from the first line of directories under /data/fxa. (DR 20224)

The problem is with the user files: the directories listed in the user.cfg. The problem is the listed directories should be the first line of directories under /data/fxa. If the listed directories are several sub-directories down from the first line of directories, the archiver can't create the sub-directories to archive the data. For example, the first line of directories under /data/fxa are ffmp, Grid, img, LDAD, radar, sat, tstorm, etc. You can ask the archiver to archiver the whole directory in the first line of directories by listing /data/fxa/ffmp, /data/fxa/Grid, so and so. If you list the directories such as:/data/fxa/Grid/LOCAL/netCDF or /data/fxa/img/SBN/netCDF/HRAP. Current archiver scripts can not create the sub- directory from the first line of directories.

Note: This is a design problem and has been around since the initial rollout of the software.

Problem. RUC13 CIN display does not show image. (DR 20212)

For the RUC13 surface-level Neg. Buoy En (Cin), contours appear but an image does not. The color bar in the upper-left displays, but the image does not. Requires a adjustment to gridImageStyle.rules.

MAF's Greg Jackson suggests:

> *Here is what is in the national file (suspect that RUC13 should be in the model list of the second definition -- not sure what the utility of the first definition is as it will produce blank images all the time for NBE):*
>
> > * NBE, cCin
> >
> > J/kg | 1 | 0 | 1 | 450 | |,x | 29 | 0 | 100
> >
> > * NBE, ETA, mesoEta212, ETA207, mesoEta216, mesoEta217, ETA218, ETA242, GFS213, GFS212
> >
> > J/kg | -1| 0 | 1 | 450 | |,x| 29 | 0 | 100
>
> *Here is what I have in customFiles that resolves the issue for us:*
>
> > * NBE,cCin
> >
> > J/kg | 1 | 0 | -250 | -5 | | ,,x | 29 | 0 | 50

Problem. DE: TPC Wind Prob geographic definition incorrect. (DR 20206)

Jim Ramer at GSD reported the following problem:

> *"The TPCWindProb data source has a slight problem. The grid as we receive it wraps ALMOST all the way around the globe, to within one grid point. Whoever implemented this, however, artificially forced it to wrap ALL the way around. The corners of the 231 grid in actuality are (0N 0E) and (90N 0.5W), whereas the*

way grid231.sup is generated in makeDataSups.csh, the corners are being forced to be (0N 0E) and (90N 0W)."

This can cause a one-half degree shift of data for the TPCWindProb product.

Workaround: In /awips/fxa/data/localization/scripts/makeDataSups.csh, change the lines:

> $maksuparg 8 0 179.999 0 grid231.sup \
>   x -179.999 179.999 0 90

to:

> $maksuparg 8 0 179.999 0 grid231.sup \
>   x -179.999 179.5 0 90

I.e., In the second line of the entry, change 179.999 to 179.5.

Run a -grids -dirs -dataSups -clipSups localization on DX3, DX4 and workstations and restart ingest on DX3.

Problem. NWRWAVES-Add the word "test" for convective watches test messages. (DR 20204)

Mike Hudson of CR HQ reported the following:

> *It is an issue with convective watches (tornado watch/severe thunderstorm watch) that get issued as test messages. This happens in the spring during severe weather awareness weeks. The test tornado watch is issued, and NWRWAVES does the right thing (send a red banner message and places the CRS message in the 'pending' directory). However, the canned text used in the watch makes no mention of the word test.*

Therefore, Mike Hudson suggested to make minor changes in the section of code that generates the canned text, by simply checking to see if this is a test message. If it is, we use the same string of text but use the word "test" in there:

> *"The NWS has issued a test tornado watch, repeat test, effective until.... Repeating, this is a test"*

or something like that.

Problem. D-2D cannot display radial products with maximum number of gates. (DR 20201)

If 90km TDWR radial image has the maximum number of range bins (600), D-2D will not display it. Usually such products have less than 600 bins and there is no problem.

This is due to a rounding error while calculating the maximum number of gates.

Workaround: In radarInfo.txt, edit products 180, 181, 182, 183, and 185: Change the "90" in the range column to "90.49". If the site has customized radarInfo.txt, make sure the change gets propagated to localizationDataSets/LLL.

Problem. notificationServer crashes or fails to send updates. (DR 20183)

Notification server crashes under circumstances. This is a longstanding problem that predates OB8. Ticket 309954 identifies this same problem. This ticket is from OB7.2, so it cannot be due to the crash that was fixed with DR 17907.

The recent crashes at VUY have finally shed some light on the situation: It appears to be a logic error in the DepictUpdateMgr code.

When notificationServer crashes, auto-updates in D-2D stop working. However, it does not cause a loss of data and notificationServer can be restarted easily.

Workarounds: Manually restart the notificationServer or set up a cron to ensure notificationServer is always running.

On Linux systems, notificationServer fails to send updates when the host has been running for more than 199 days. This may also be a triggering condition for the crash described above.

There may be yet another problem: notificationServer occasionally seems to stop working and there are no messages in the log file until the server receives a termination signal.

Problem. update meta data in historical data browser. (DR 20166)

The meta data in histdata database needs to be updated so that historical data browser (HDB) will be used as expected. New scripts will need to be created to delete old data from the tables and load new set of data.

The IDMA application also reads histdata database so after the changes both HDB and IDMA will need to be tested.

AWIPS_DR_20070 OB7.2: Service backup error requires dx4 reboot. The following is a symptom of the problem. BGM was backing up CTP:

> See bad ctp directory in /awips/adapt/ifps/localbin on dx4

> -- See the following:

> -sh-3.00$ ls -l
> total 1680
> drwxrwxr-x 2 ifps fxalpha   4096 Oct 24 2005 afi/
> drwxrwxr-x 4 ifps fxalpha   4096 May 9 15:09 bgm_products/
> -rwxrwxr-x 1 ifps fxalpha   765 Feb 8 2005 ccf.log*
> drwxrwxr-x 2 ifps fxalpha   4096 Nov 26 2003 ccfver/
> -rwxrwxr-x 1 ifps fxalpha 266901 Jun 19 2003 Checksheet_4_AFI-2.wpd*
> ?--------- ? ?   ?   ?   ? ctp

Also, the error message 'Service Backup Servers Failed to Start' will appear.

Juliya Dynina at ASM/MDL investigated extensively last year, and believes that the service backup software is not responsible for the problem. During the time when the problem started occurring, there were no changes to the scripts in question. We have been told by a system administrator that the problem is likely related to nfs mounts.

Problem. NWRWAVES: routine update to UGClookup.table. (DR 20027)

WFO LOX found an incorrect marine entry in the UGClookup.table file. The location description should be "Point Conception" instead of "Port Conception" in the marine zone PZZ085 record. In case of any other offices may have any latest UGC/zone changes, NWRWAVES baseline UGClookup.table will be updated to reflect these changes. On 3/18/08, the AWIPS DR Team is suggested that the fix should be done in OB8.3.1 release.

Problem. MAKE6HRXMRG program is incompatible with Leap Year. (DR 20015)

Joe Ostriwski from MARFC called program MAKE6HRXMRG is incompatible with Leap Year on the day February 29.

Program MAKE6HRXMRG creates four 6 hour xmrg files from the 1 hour xmrg files and then the files can be displayed using program XNAV. When run the program on March 1st of 2008, it produced 6hr totals for the day 02/28 and 03/01, nothing for 02/29. This is wrong. But program MAKE24hrXMRG works fine on the day March 1st of 2008.

More information can be found on NHDR

/fs/hseb/bug/TT324610

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. 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. Fog Monitor: Wrong satellite assignment 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) revealed that the Fog Monitor was trying to access GOES-West data, while GLD gets GOES-East. This is occurring because the localization-calculated center point 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 WFOs 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 WFOs 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 affects the ability for those warnings to be verified.

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

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.

Workaround: 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 beginning point for the next day's query.

For some locations--particularly 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. 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 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. 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)

E-mail 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: 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 there 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 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. 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. 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 receive 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: 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.

Workaround: 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: Guardian and forced settings (Ref: DR_18729). (DR 19184)

Forecasters in the field have pointed out that Guardian does not allow for a forced sound file to be played. This was as designed, but the field states very clearly they want/need this sort of functionality.

Problem: Reprioritize RadarMsgHandler messages sent to GUARDIAN (Ref. DR 18767). (DR 19179)

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 the following 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: 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: In monthly climate report (CLM) Number of days max > 90 is incorrect. (DR 19108)

In the monthly climate report (CLM), the normals for the number of days with max temp>= 90, number of days with max temp <=32, number of days with min temp <=32, and number of days with mintemp <=0 are incorrect. The product displays the number of days that the normal temp meets the criteria, not the average number of days the criteria is met.

Example: In July in Amarillo, instead of showing 19.9 days on average with a max temp >=90, the product shows 31 days, because the normal is above 90 for all 31 days of the month.

I looked in Amarillo's climate database, and the correct values are in there, so there may have been a software change at some point that caused the wrong values to be grabbed.

The values that should be displayed in the database from the table mon_climate_norm are num_max_ge_90f, num_max_le_32f, num_min_le_32f, and num_min_le_0f.

Workaround. Manually edit the monthly climate products. The operational impact is the time required for manually editing.

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
> $\pm$ 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

Problem: ETNs for TS and HU not being maintained in the CWF. (DR 19096)

CHS and JAX discovered upon preparing for TS Barry that their ETNs were not incrementing to 0002 as they should. I have created TS and HU products on nmtw and can get the ETN to increment as the previous product is recent.

My theory is code exists which purges TS and HU hazards from the VTEC AT after 14 days. This does not impact the TPC-issued coastal zone hazards as they assign their own ETN. But it does negatively impact the WFO as the ETN is pulled from the AT. AFAIK, there is no workaround.

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 RFCs, the fact that /data/fxa/ispan/bufr/GFSLAMP is not purged is a particular problem because RFCs do not run the BufrMosDecoder, which would read and then remove the data from this directory.

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

Problem: VTEC ETN mismatch between WarnGen and Text Workstation QC program. (DR 19081)

There is suspected mismatch between WarnGen and the Text Workstation (Text WarnGen Window) QC program over the number of products examined in the text database. When this occurs, the following QC error occurs [See Attachment 1 for a screen shot from WFO SGF] "The value of your ETN, 0008, is much higher than the highest ETN in the text database.

The SST has examined the text database using the following command [textdb -r ALL:STLFLSSGF | grep ^'/X'] and found the following: [See Attachment 2]

Note: The text database does have products stored FA.Y using ETNs 0001 - 0007 before the site rain into this problem.

Shannon White had indicated that she had seen this problem in previous VTEC testing.

A WarnGen archive was created for this problem 5/30/ 2007 and stored in /data/fxa/wgnTT.20070530_1236.

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: NWRWAVES: Incorrectly issues red banner TEST message. (DR 19057)

As reported by Brian Walawender of CR HQ: The check for TEST wording or T VTEC coding occurs before the processing of listening area codes. So it is possible to get an FXA Red Banner message stating something similar to "TEST WORDING DETECTED IN STLWOU4...SENDING TO PENDING" even though the product has none of the sites' counties/zones in it.

This bug will affect all WFOs. The good news is that no messages are generated unless the product contains counties or zones in your listening area. The FXA red banner message can be safely ignored.

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 definition 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 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 bulleted 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: WarnGen: County dropped from first bullet of warning. (DR 19031)

County names were dropped from the body of an areal flood warning. These counties coincided with duplicate county names between states. Upon generating the product, WarnGen alerts the user to the fact that there's a miscount between the number of UGC codes in the product

(correct) and the number of counties listed in the first bullet.

The source of our problem originates from the template section below, which creates the first bullet output:

```
<AREA |file=wwa_counties |format=simple |group_by=[table]

        |used=begin |unique_by=[1] [53] [0,table]

        |item_format=

        ~~[county_area_state][-799,...][799,...]&[599,~~THIS INCLUDES THE CIT]
        @@@COPE

        |accumulate |cross=wwa_counties |sort_by=[52] [51] [50,table] [0,size]

        |file=wwa_warn_city @@@CIPE

        |include_field=2 |include_text=1

        |exclude_field=2 |exclude_text=0

        |item_format=[1199,Y OF~][2199,IES OF...][1][-799,...][799,...&] >
```

Most WFOs have trimmed back this section to look like the following:

<AREA |file=wwa_counties |format=simple |group_by=[table] |sort_by=[1]

|used=begin |unique_by=[1] [53] [0,table] |portions |extreme=no

|accumulate |item_format=~~[county_area_state]&>&

Note the |unique_by=[1] [53] [0,table] piece of code. The wwa_counties.id file is a pipe delimited file which contains the county information used in WarnGen. The first field is the county, the second is the state and the third is the UGC code. |unique_by = [1] tells WarnGen that all output must first be unique by the 1st field -- or the county name. This is where the error occurs, because the duplicate county names are no longer unique.

The same potential problem exists in the national templates for:

Tornado Warning, Severe Thunderstorm warning, Flash Flood Warning, Dam Break FFW and Areal Flood Warning.

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

Something is sending thousands of pop-up messages to Guardian. It was suggested that the 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.

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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: OB8.2 - AF: Increase timeout value for service backup to complete (REF DR-18910). (DR 19000)

When the grids were imported by the sites with resolution of 2.5km, size becomes so huge and MHS discards the products when received at the site. This is because time taken for transmitting the products extends for few hours and hence site discards. So as part of the solution, the timeout value for the grid products transmitted from NCF, is specified as part of service backup response that is sent from NCF.

This problem has serious impact to the forecasters/end users. Problem occurs whenever the site imports grid data from central server with resolution of 2.5km.

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 performed on either a set of variables or a combination of variables and defined values.

Problem: Small Enhancement: Allow users to configure Hydroview font size. (DR 189896)

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: SCAN: Non-low-cored Mesocyclone will not show in the SCAN MESO Table. (DR 18984)

The ORPG will add the implementation of associating storm ID and Mesocyclone features by using 20 km distance to remove high MESO false alarm in the ORPG Build 9 emergence release. Based on this change, some of the Mesocyclones (non-low-cored features but more than 20 km away from any storm identifiers which are labeled as "??" in the MD radar product) will be missing from our SCAN MESO Table display.

The reason of this DR is rated as "critical" is because some Mesocyclone important information will be missed to represent to forecasters and thus may mislead them in severe weather events for their decision making. Although the percentage of the non-low-cored mesocyclones is low, we like this DR to be included ASAP to accommodate the changes caused by ORPG.

Problem: Point Precipitation Accumulation feature fills up /awips/hydroapps space. (DR 18980)

The Point Precipitation Accumulation function within the HydroView application allows a user to select one or more durations, data elements (PP, PC, or both), and data sources, and as well as a variety of filter and sort options. The output is a tabular listing of precipitation accumulations for the durations which have been selected. The process also writes 3 files to the /awips/hydroapps/whfs/local/product directory:

>   paccum_hdr.ccccc
>   paccum_data.ccccc
>   paccum_out.ccccc

where the ccccc is the numeric Linux process id for that instance of Hydroview.

For the duration, the user can select from a scroll-list of pre-defined durations (1-hr, 3-hr, 6-hr, 12-hr, 24-hr, 48-hr, 72-hr), or a user-defined duration may be selected. When selecting a user-defined duration, the user must select the "Other" value from the scroll-list of durations, as well

as enter the duration, in hours, in the box labeled Other, which is beside the duration scroll-list. The "Other" value in the scroll-list is at the bottom of the list, so the user must scroll through the list to select it.

If a value is entered in the Other box, WITHOUT selecting the "Other" value from the duration scroll-list, the application will write to the paccum_data.ccccc file until it consumes all the available disk space in the /awips/hydroapps directory. The Hydroview application will hang, and ultimately crash. When the disk space fills up, the shef decoder will be unable to write its log files, and it will stop processing data. Other applications which write log files will also be unable to successfully process data, including the dpa decoding process (which decodes the radar precip estimates which are the input to MPE).

If the user desires to see a precipitation accumulation for a duration other than one of the pre-defined durations, s/he must make sure to select "Other" from the list as well as define the duration.

Problem: SPCcheck:LLL-tor/svrWatch.txt not have all counties in a watch(8.1 18872). (DR 18979)

SPCcheck creates LLL_torWatch.txt or LLL-srvWatch.txt for a tornado watch or a severe thunderstorm watch issued by SPC. Not all counties in the same CWA mentioned in the watch were included in LLL_torWatch.txt or LLL-srvWatch.txt. WarnGen uses include mechanism to automatically ingest the content of LLL_torWatch.txt/LLL-srvWatch.txt into warning products. The missing regions in LLL_torWatch.txt/LLL-srvWatch.txt cause missing counties in WarnGen warning products.

The following is an example occurred at ILM: "On Friday March 2nd, Tornado Watch #51 was issued for all of our Southeast North Carolina counties and Northeast South Carolina counties. ... Our Severe Thunderstorm Warning and Severe Weather Statements only contained a mention of the watch in North Carolina in the text."

The missing counties issue has been confirmed with SVR tstm watch 69 on March 23, 2007 at site EPZ.

History: SAW product was replaced by WOU, and new code were added to SELSparagraphs.C to handle WOU (DR 16231). There might be bugs in the code.

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: NCEP/Hydro -> HPC Precipitation menu incorrect. (DR 18976)

The NCEP/Hydro -> HPC Precipitation menu includes spaces and a divider at the bottom of the menu. It looks incorrect. I'm not sure what the menu should include, but as it is, it doesn't look right. See attached image.

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: Ref. OB8.2 program Batch Post not working. (Ref. OB8.1 DR 18889). (DR 18965)

Batchpost got memory fault when input file is over 50000 lines.

BATCHPST was not posting all of the data from the vl2v5.buf file (this file is created when OFSDE pulls the latest data out of the PostgreSQL database) to the fs5files.

This program is responsible for moving model data from Postgres over to their hydrologic modeling programs. Usually when another program called OSFDE creates and input file for Batch Post that sometimes that input file can get too large and will create a Memory Fault error in Batch Post.

Find: This latest enhancement of program was designed to move less than 50000 lines from vl2v5.buf file to the fa5files. But this time the input file is 150000 lines long, so the program get memory fault and core dump.

Solution: In batchpst.f file, Change dimension (50000) to (500000).

Workaround. Use the OB4 version to transfer data into fs5files. The problem left is when there is no data on the top of each hour, it will show the missing data in the fs5files, but the enhancement was let the program to look the valid data in a small window.

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: DE: NAM12 & GFS40 display wrong freezing-level heights. (DR 18962)

This DR comes out of TT276800, reported by Matt Foster at OUN.

Although this problem was discovered in OB7.2, it is believed to be pre-existing.

When displaying the Freezing Level Height, when there is a low-level inversion present (i.e. the surface temperature is at or below freezing and a temperature inversion results in the temperature going above freezing at some height above ground), D-2D display of NAM12 shows the freezing level at 0ft, when it should be higher due to the inversion. With the GFS40, it appears to show negative values. This problem happens when the Freezing Level Height is delivered as part of the SBN data flow (i.e., an NCEP-provided freezing level grid) and stored into the netCDF files. For models in which the Freezing Level Height is not included in the SBN data, it is calculated on D-2D load in AWIPS, and those cases do not show this problem.

It needs to be determined for this DR whether this is due to the data or to AWIPS software manipulation of the data, either upon storage or upon display.

Matt Foster, of OUN, who reported this problem states that the impacts can be pretty severe, especially during winter weather situations. The erroneous freezing level plan view plots make it much more difficult for the forecasters to determine the depth of a surface-based sub-freezing layer. This directly affects the determination of precipitation type...most notably discerning between freezing rain and sleet, which is an extremely high-impact decision.

This could also impact aviation icing forecasts, which we don't do at the WFO level, but could potentially affect other offices or centers that do these forecasts.

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: Expansion of MAPX in NWSRFS Not Working. (DR 18938)

The version of NWSRFS in release OB7.2 included expanding the capabilities of MAPX in order to improve the forecast support MARFC provides for the to the Susquehanna Flood Forecast Warning System (a joint project among multiple Federal agencies). Now that MARFC is attempting to fully utilize these new capabilities and provide the agreed to support, a number of problems have been found.

After a careful examination of the problem, the following changes need to be made in order for MARFC to fully utilize the increased MAPX capabilities:

FCST

>   nmapx.f - array length variable increase

PPINIT

>   sblock.f - DATA statement for array size increase
>   ssppp2.f - array length variable increase

REORDER

>   sblock.f - same as for PPINIT
>   urgtts.f - format statement change to handle increase in number of time-series.

FILESIZE

>   pppsiz.f - format change for increase in max number of parameters

FILECRAT

>   pppctl.f - format change to handle increased quantities

SHARED_S

>   ssppp.f - format change to handle increased quantities.

SHARED_UTIL

>   fcint.f - format change to handle increased quantities.

The array size changes keep the affected programs - FCST, PPINIT, and REORDER - from working with the expanded definitions. The FILESIZE changes are critical as the input for FILECRAT created by FILESIZE are "starred-out" (FORTRAN fixed format problems) without

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the changes, preventing FILECRAT from working properly, while the format changes are mostly to keep the program output readable.

Workaround: None.

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: River Monitor does not display flood stage or action stage departures. (DR 18929)

The River Monitor application allows the user to review and monitor a wide spectrum of river data and information. Some of the data which can be displayed include departures of current observed or forecast data from flood stage and action stage values. A bug exists whereby in certain conditions, the departure values are not displayed in the River Monitor tool. The bug manifests itself when subtractions result in departure values with more than two decimal places due to floating point representation limitations.

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 hydrologic 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: Bug in baseline Hazard_WCN: Definition["purgeTime"] misspelled (Ref 18841). (DR 18926)

There is a spelling error in the baseline Hazard_WCN. Definition["purgeTime"] = 12 is misspelled as "purgeTme". This was causing us to have a product exp time (segment) of 8 hours

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for a 12 hour watch (some reason defaulted to 8 hours which is used in some other products). And yes, SPC does issue watches longer than 8 hours. Anyway, I overrode it locally (Hazard_WCN_Local) since the Weather Channel apparently still keys on this coding instead of the VTEC coding.

Joe Lowery, IFPS Focal Point, WFO Memphis, TN (MEG OB7.1)

Matt Foster wrote:

> *So, I guess the most "proper" way to fix this immediately is to put a correct Definition["purgeTime"] = 12 in the Hazard_WCN_Local file?*
>
> *Matt @ OUN*

Code changes have been checked into OB8.1. Test cases need to be updated.

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: ORPGCommsMgr fails to close open files before deleting (OB8.1 DR 18916). (DR 18917)

This is an OB8.2 duplicate DR of OB8.1 DR 18916 and OB7.2 DR 18771.

The ORPGCommsMgr process which runs on dx2f at all AWIPS sites and is responsible for the ingest of radar data from the RDA is failing with error message: EMFILE (Too many open files) the culprit are temporary nfs transaction files in /data/fxa/radar/environData/.nfs*

This failure is manifested at sites by the lack of storage of radar images and data. When the ORPGCommsMgr is in this state, no radar data from the site's local RDA will be ingested. This affects ALL sites ingesting via the ORPGCommsMgr process.

Workaround: Periodically restart the ORPGCommsMgr process, which clears out the errors and open files.

Conclusion: The ORPGCommsMgr process is not closing the /data/fxa/radar/environData/YYYYMMDD_HHMMSS.kxxx files before deleting them. This is what creates the .nfs, when a file is deleted on an nfs partition which a process is still reading. If the ORPGCommsMgr closes the file properly, and then deletes the YYYYMMDD_HHMMSS.kxxx file, the .nfs wouldn't even show up.

The error in the trace: EMFILE (Too many open files) is given when the calling process has too many open files in memory, and not the OS.

Problem: msg_stats modification for sendmail queue relocation. (DR 18914)

The msg_stats utility references the /var/spool/mqueue for the sendmail queues when executed from the NCF when it should reference /var/spool/mqueue/mhs#. Need to make it display the sendmail queue information depending on whether it is running at the NCF (A/B/T) or a site. The version currently running in the field is correct for sites, but not for the NCF. The change will make msg_stats run correctly at both locations. There is no impact to the sites for this change, only to the NCF. This utility is not used by forecasters. There is no workaround. Impact is minimal since the information is available elsewhere.

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.

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

ARX reported two problems with the D-2D display that 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.

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. AWIPS_DR_18893   GFE: no timer phrases with thunderstorm attributes. (DR 18893)

Thomas Spriggs' e-mail 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 similar CoverageLists (WxPhrases). When it finds like coverages, it will remove the time information from the thunderstorm attributes. When

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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

Workaround: Override or edit the 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: DS decom: Add legalArchiver.sh to dx1cron file (Ref. DR18786). (DR 18890)

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: 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 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: 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: Intermittent problems with HWR product getting over to CRS. (DR 18871)

The site are having a problem with their HWR products where in any given hour, none or some or all of their HWR products aren't making it to CRS. When this problem happened, the site was in failover mode by failing DX1 to DX2. The exact problem happened to LWX site on 2/26/2007.

Workaround: **Manually send the missing products over to CRS.**

Impact: **Minimum impact to weather forecast operation.**

Note: A debug version of NWR needed to be installed at the trouble site when the site has Release 7.2 or earlier and is in failover mode to diagnose the root cause of problem. If the site has Release 8.0 or later, the site needs to turn on the debug flag for logStreamExpect log in the ingestLogPref file to diagnose the root cause of problem.

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

If one loads only warnings and then tries to do a follow-up, 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: 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: 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: 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: 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.

Workaroun: Manually edit climate through sql commands.

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 NWRWaves 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 repetitive testing just reached the critical number of saves during the testing of OB7.2.1.

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: Neighboring. 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 database it will dump the grid on the floor. Unfortunately, it stops the entire iscMosaic process rather than continuing on with the next grid or next weather element. When multiple weather elements are sent in one message via ISC, grids processed up to the offending one will be properly stored, everything else after that will be ignored.

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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 configs 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 Monitor: 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 occurrence 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 correctly 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 to 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: 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: 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

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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

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:

Contract DG133W-05-CQ-1067; DCN AWP.RLSN-OB8.3 Final

Use or disclosure of data contained on this sheet is subject to the restriction on the title page of this document.   4-46

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: 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.

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Problem. GHG: Event extended to a far away location. (DR 20215)

WFO Fairbanks issued two flood watches for ice jam flooding recently using GHG. The flood watch for the Yukon River at Ft Yukon (AKZ220) was issued first and was assigned the ETN of 0001. When the second one was issued for the Tanana River near Fairbanks (AKZ222/AKZ223), GHG assigned it the same ETN (i.e., as an expansion of the first watch). The two locations are hundreds of miles apart and the site expected to have two different events.

Problem. Cursor error ITO alarm when climate is run on cron. (DR 20135)

Kevin Johnson from the NCF contacted me. He said that they are trying to clean up their ITO alarms so that unnecessary errors are not broadcast. He said they have determined that the error "ERROR: cursor "clispeci_cursor" does not exist" is generated each time a site runs their am/pm climate on a cron.

There were some cursor bugs generated by the Informix to Postgres change in OB7.1, and I believe this is a leftover that was not fixed because there is no known problem in running climate, just the error message.

Problem. GFE: CWF swell phrase has bug. (DR 20112)

Greg's e-mail per ticket description:

There appears to be a bug in the GFE CWF formatter. I am able to get it to fail for the CWF_Pacific_SGX (local) and CWF_Pacific_WR (regional) formatters. I have not been able to duplicate the problem with the baseline CWF formatter, but I believe that is because the height of the secondary swell is not sufficient to generate a secondary swell statement and thus cause the same sort of failure noted in the local and regional formatters. I do think the problem likely lies at the baseline level, however.

Scenario: Primary swell is changing within a forecast period. There is also a secondary swell. This is in one of the first few forecast periods (where both height and period information is included for swell).

What should happen: Statement for the primary swell with height and period showing the transition (e.g., Swell w 3 to 5 ft at 10 seconds...building to 4 to 7 ft at 9 seconds after midnight). There should also be a statement for the secondary swell with height and period (e.g., secondary swells 2 to 3 feet at 14 seconds).

What is happening: The primary swell statement is correct, but the secondary swell statement is omitting the secondary reference and the period information (e.g., swell s 2 to 3 ft).

This only occurs when there is a transition of the primary swell within a forecast period and also a secondary swell present.

The site is running OB8.2. Not sure which build this problem started with but I believe the issue has always been there.

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).

Workaround: 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. AvnFPS: IFPS2AvnFPS should query ifpServer for edit area definitions. (DR 19406)

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. notificationServer not updating Upper Air RAOB Green Times. (DR 19195)

Sometimes the notificationServer fails to update the green time on D-2D.

Workaround: 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: 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")

Trouble Ticket 278769 from TOP refers to the above Trouble Ticket.

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.

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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: 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: 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: 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).

Note: Because 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 that 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 Initialization 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: 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.

<div align="center">###</div>

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: 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: 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"

6.0   RELEASE OB6

6.1   OB6.1

Problem. Small enhancement: RFCs don't have NotifyText infrastructure in AWIPS. (DR 20203)

The following is from the ifpServer log in GFE, from Marty Lee at the Portland RFC:
"PROBLEM: Unable to 'kick' NotifyTextProd" RFCs don't have NotifyText infrastructure in AWIPS, and this trickles down to not having GFE GHG capabilities, etc.
All this ultimately illustrates how, that since GFE is different at RFCs and WFOs, the resulting AWIPS 2 GFE training will also need to be different – unless Raytheon really does narrow its GFE implementation down to a single approach (which would make GFE look the same at both RFCs and WFOs).

Problem. Small enhancement: RFCs need to be recognized as WFOs in GFE. (DR 20202)

The following is from Marty Lee at the Portland RFC:

Part of a "dx4 OB8.3" ifps server logfile from 5/6/08 that illustrates the issue.

"PTR is not a known WFO. Skipping text formatter configuration"

This is not an end user configurable issue - it gets delivered in binary code to the field this way. RFCs need to be added in by Raytheon or GSD prior to delivery of GFE software to the field.

Problem. TextWS: Proximity Alarm does not handle SAW products. (DR 20187)

The Proximity Alarm/Alert function of text workstations does not correctly process the lat/lon coordinate lists in SAW products. This causes it to give false positives for storm watches.

Workaround: It should be possible to use WOU products instead.

Problem. RFC 6 Hr QPE Bad Mosaic. (DR 20168)

In the image showing a 6 hour QPE between CBRFC and NWRFC (the boundary is the blue line). You can see 'white' grid cells along the border that don't fit the values of their neighbor grid cells. These cell values are 0. It appears that their QPE software puts 0.0 values outside their RFC boundaries, whereas we happen to put in a missing value. It looks like the same issue, just different values. Either way, zero or missing are not the correct values to be displayed in those grid cells. With this information, it looks more like my second suggestion might be the culprit. Perhaps D2D (or the mosaicking software) assigns a grid cell to an RFC and those assignments don't match up with the RFC assignment of grid cells.

James:

If you look at other RFC mosaicked products (FFG, QPF) in D2D, you will see similar gaps, but they differ depending on the product. The QPE product looks like the 'gaps' or holes are all the same size and the grids are all the same size. If you look at the FFG grids, for example, the gaps

are not in the same places as the gaps in the QPE. Also, the gap sizes differ within the FFG. It looks like the grid sizes differ from one RFC to another (I assume this is in the projection of the HRAP grids to another grid). Along RFC boundaries, it looks like the grids actually overlap because of the size difference.

Bill is correct. These gaps have existed since we've been able to see mosaicked RFC gridded fields in D2D.

This may or may not also cause issues with FFMP and GFE. If they use these netCDFs and the gaps are really holes in the data (and not just display artifacts) then the missing data would cause problems.

Problem. Incorrect SIGPIPE handling by C-Shell scripts. (DR 20134)

When running /awips/ldad/bin/startLDAD.csh as $USER=ldad on px2 you receive the following error which exits the script and DOES NOT startup the required procs:

> px2-orn{ldad}#: startLDAD.csh
>
> NOT STARTING LDAD PROCESSES - ls1 is not listed when running ypcat hosts

The LDAD processes are not started and no data flow will occur between the ls1-${SITE_NAME} and AWIPS.

The problem occurs because C-Shell is not compiled with the flag to ignore SIGPIPE errors, as in BASH and KSH (DONT_REPORT_SIGPIPE). The ypcat /etc/hosts | gre -q ls1-${SITE_NAME} line is what is causing the problem ... the startLDAD.csh script exits with error if the return code ($?) from the command is anything other than 0. The command is ran to check if the site actually has a LDAD. The reason it returns a non-zero exit status is because it receives a SIGPIPE when it fails to detect a read from a PIPE it tries to write to ... the failure comes from the poll() system call which is waiting on a socket it opens to a non-local LAN IPADDR. This occurs at sites who have non-local LAN IPADDRs in their /etc/hosts file on DX1, and thus in /var/yp/bindings (the NIS mapfiles on the clients, such as PX2). A return signal isn't received and thus a SIGPIPE is handled causing the exit status to be 141 (141-128=13:SIGPIPE). Haven't seen this occur at sites without the non-local LAN IPADDR entries in the dx1:/etc/hosts file.

It isn't known if this problem can occur without the non-local LAN IPADDR in the dx1:/etc/hosts file since exhaustive testing wasn't done; however, the sites it has occurred at all have that common thread, and a stack trace shows the poll() system call trying to fork a socket to an external host and receiving the SIGPIPE back due to a non-write return.

Problem. TextDB_Server leaks memory. (DR 20089)

TextDB_Server leaks memory on each read request. This probably goes back to OB6.

The leak may not cause a huge performance impact, but it could affect stability when TextDB_Server is up for long time.

Workaround: Periodically restart TextDB_Server.

Problem. OB6: In climate, snow depth entry should not have tenths. (DR 20011)

E-mail from Roger Galloway at RNK to NCF:

> *Due to confusion, I believe tickets I had opened in the past were prematurely closed because a DR is open concerning snow depth. However, the DR is to change the snow depth to be a 1200 UTC reported depth.*
>
> *My request was to fix the way the snow depth is entered and reported. Currently, when creating any of the daily climate reports, the snow depth entry window, on the station data entry gui, provides an indication the depth should be reported in inches and tenths of inches. For example, it shows an entry of 99.9. This is incorrect. Snow depth, according to the appropriate manuals/directives is only to be reported in whole inches. So the snow depth entry screen should only allow an integer entry.*
>
> *Although I opened tickets before, I believe they were closed due to a DR already open for snow depth, albeit for a different problem than my ticket.*
>
> *Would you please open a new ticket for me concerning the way the data entry is displayed in the snow depth field to reflect whole numbers only?*
>
> *Roger Galloway*
>
> *Blacksburg, VA RNK*

Setting as OB6 as it seems that climate has always been this way.

Problem. OB6: Climate program not ingesting snow depth/snowfall SCD data. (DR 19966)

Chris Geelhart at Lincoln IL (ILX) reported that when they have snowfall, the SCD data they are getting does not get ingested into the climate program. He said that he has talked to surrounding sites, and they also noted the problem. He said that as far as he knows, this is not a new issue - it has never worked, ever.

Baoyu Yin at ASM took a look at the climate application, and one problem he sees is that there does not appear to be a code for snow depth, so SCD snow depth info can not be stored in the climate database. It is unclear about snowfall. More investigation would be required.

Workaround: Manually entering the SCD data into climate.

Problem. OB8.1: CO_serv log break restarts process. (DR 19787)

It appears that during the breakLogLDAD.ls script, when the kill -USR1 is sent to the CO_serv process, it actually stops and starts the process rather than just creating a new log file.

There does not appear to be any operational impact, but if a product comes through when the process is restarting there may be loss of product.

Workaround. None. The process does restart.

Problem. OB6: In HWR, dewpoint from METAR listed as 32 when should be missing. (DR 19638)

This is the same issue as DR 17043. DR 17043 was written in OB6, was assigned to OB8.1, and was tested and closed at that point.

The problem is still being reported however by field sites. Two tickets have come in in the last month: GLD 312873 and HFO 313936.

The problem is that if a weather station does not report dewpoint or the dewpoint is missing from the report for some reason, instead of coming back as 9999 or missing in the METAR, it comes back as 0 (Celsius) which shows up in the Hourly Weather Roundup (HWR) as 32F.

Brad Schick the ITO at Goodland has done a couple of tests after noticing the problem initially and has been able to reproduce it (11/15/07).

Maurine at HFO also reported the problem (11/26/07).

Problem. OB6: 0-byte files in /data/incoming. (DR 19636)

Gray Maine opened ticket 310733 during OB8.2 beta that 0-byte files in LDAD were coming into /data/Incoming.

Eastern Region mentioned that they also had the problem, but they said it has been occurring for six years. This may have been a problem at a lot of sites and we just hadn't heard about it. Putting release discovered as OB6 to clarify that it's been occurring for a long time (could be before OB6).

Problem. OB6: Expiration date on climate CLI product incorrect for PM product. (DR 19631)

This problem has been occurring for years according to the site, at least since OB6.

When the file "output pm MYY.nwr" is issued between 4:30-4:45 PM, the expiration time is about 24 hours earlier than the actual day. I.E. for today's message, 141859Z, but should be 151959Z. When file is sent to CRS, it will already be expired and not included in the broadcast cycle. The site fixes this by manually editing.

This is similar to the error in DR 19437 (not assigned to a build as of Nov. 15) but different.

Problem. AF:Duptext products not processed due to missing entry in dx1apps. (DR 19291)

Duptext products are not processed at the site as dx1apps package does not contain an entry for appropriate process (uplink_send) that sends the data to acquisition server. Currently all sites process this data as uplink_send process is executed on ds1 and its part of dsswap package. After DS decommissioning, these duptext products will not get processed unless it is added to DX1apps.

AWIPS OB8.3 Final Release Notes. Section III, Current Problems, 05 June 2008

Raytheon

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.

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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 RFCs 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 RFCs.

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 Trouble Tickets 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 (e.g., soil temperature at multiple depths). Data of this type is stored in a separate 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: OB6: vacuum 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.
>
> 0, 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.

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. Tide Shef Messages. (DR 18092)

A shef message can't be created for tide data when doing a ppdutil dumpshef command.

Tide shefdata with the shef parameter code HMIFZ will not post to the preprocessor database using shefpost.

Problem. Incorrect Time Stamp on FFG Product. (DR 18024)

The product output from the FFG program is time stamped with CST time when it should be time stamped with CDT time.

Problem. Incomplete XSETS. (DR 18023)

Crest STGE Forecast LX-XSETS: If the time series that the forecast is created from is STGE, any crest forecasts and Above FS and Below FS information is not generated.