

NAWIPS 7.2.0 Release Notes

Product Release Information

- **Product:** NAWIPS
- **Release Number:** 7.2.0
- **Release Date:** March 24, 2015

Introduction

This document contains the release notes for NAWIPS, version 7.2.0. The following sections describe the release in detail and provide late-breaking or other information that supplements the main documentation.

This is a minor release with bug fixes, table updates and a few modifications, which are outlined below.

What's New

1. Updated the wrapper scripts for the XML to VGF and VGF to XML converters.
2. Changed the parameters used to set the grid size from reals to integers. GFortran complained that the implicit real parameters could not be used to declare an array size. Added another flag for GFortran. The `-fno-range-check` flag is required to compile the IM library.
3. Increased memory allocation to fix bug in PGEN Volcanic Ash Advisory for long volcano names.
4. Modified the GRIB2 tables to make the parameter names and level scaling match the GRIB1 values.
5. Re-modified the GRIB2 function that creates a GEMPAK parameter name for probability grids to remove the previous change. The original change interfered with the WPC creation of the GRIB2 files.
6. Added new build file for GDTSER_GF at the request of the WPC.
7. Fix the SIGWX BUFR encoder to correctly encode the Airframe Icing Code for Severe Icing in the Mid-level BUFR message. This work was done by Larry Hinson, AWC.
8. Added a new image color table for the Dvorak IR curve. This table was created by Mike Brennan, NHC.
9. Fixed a potential infinite loop in `af_getIntIPt`, when none of the points in the clipped polygon is an original point of the international bound.
10. Updated maps and tables with the 4 June 2014 changes from the NWS geodata web site. Map updates for Public Zones and Fire Zones valid for Oct 7, 2014.
11. Updated maps, bounds and stations tables valid for Dec 3, 2014 NWS shapefile updates for Public Zones, Counties, CWAs, Coastal Marine Zones, and Fire Zones.

12. Added a new application, MPDWPC, to create information for the WPC Mesoscale Precipitation Discussion. The application finds a scallop line in a VG file and produces a list of states, WFOs and RFCs affected. It also outputs the lat-lon pairs for the line coordinates.
13. Fixed the STATES list for a relatively large area. The STATES list and WFO list were getting mixed up.
14. Fixed size of the date-time string to show the 5-digit forecast time. Modified FL, CFL and ST functions to allow FFFFF as a valid template pattern. This allows GEMPAK to properly process the HRRR data which has sub-hourly times and must use 5 digits for the forecast times.
15. Bug fix to generate the proper UGC codes for Hawaii breakpoints in the TCV product.
16. Modified the MDPWPC program to only use the last 4 digits of a longitude greater than 100W. According to the NWS directive, lat/lon values must only use the last 4 digits.
17. Updated MPDWPC to no longer process LINE_ELM types. It will only process SPLN_ELM Scallop lines.
18. Temporary fix for the lat-lon of Jasper County, TX. This was reported to the NWS GIS lead and should be fixed in the next version of the Shapefile.
19. Updated to the VGF2XML process to allow for VG files using an LPF to convert properly to XML.
20. Fixed VGF2XML run on RHEL6. Added check to use a different temporary directory for JNA, if /tmp is mounted with the noexec flag.
21. Fixed problems in VGF2XML when converting an LPF to a multi-layered XML file- run vgf2xml without any argument for on-line document. If "color_mode" is set to "OFF" instead of "Mono", it would be ignored and "monoColor" would be set to "true" in the XML. Also fixed the problem when the converter passes incorrect fhour and date/time in an LPF conversion.
22. Fixed the problem regarding Text Width lost when converting between VGF and XML. Also a line which has only one point in a VGF will not be converted to XML.
23. Updated KIGX surface station location per NHC M. Brennan's request.
24. Fixed prob2cat segment fault and incorrect results reported by SPC when running against tornado outlook that contains significant severe lines.
25. Fixed AIRMET problems for AWC:
 - a. Two FROM lines associated with one set of snapshots.
 - b. IFR G-Airmet problem: All chosen IFR will be remembered and updated in the text box.
 - c. MOD/Editing tool problem.

List of Modified Tables

- \$GEMTBL/grid/g2varswmo2.tbl, g2varsncep1.tbl, g2vcrdwmo2.tbl
- \$GEMTBL/stns/firezones.tbl, marinenames.tbl, marinezones.tbl, sfstns.tbl, county.tbl, zones.tbl, volcano.tbl, mzcntys.tbl, countynam.tbl
- \$GEMTBL/luts/enhance.tbl, ir_bd_cc.tbl
- \$GEMTBL/bounds/cwabnds.tbl, countybnds.tbl, firebnds.tbl, mzbnds.tbl, mzcntybnds.tbl, pfzbnds.tbl

List of Modified Maps

- \$GEMMAPS/hicnus.nws, locnus.nws, mecnus.nws, tpcnus.nws
- \$GEMMAPS/hicwa.nws, locwa.nws, mecwa.nws, tpcwa.nws
- \$GEMMAPS/hifzus.nws, lofzus.nws, mefzus.nws, tpfzus.nws
- \$GEMMAPS/himzcn.nws, lomzcn.nws, memzcn.nws, dd tpmzcn.nws
- \$GEMMAPS/hiosuo.nws, loosuo.nws, meosuo.nws, tposuo.nws
- \$GEMMAPS/hiznus.nws, loznus.nws, meznus.nws, tpznus.nws

List of Modified Environment Configuration Files

- \$NAWIPS/environ/csh.d/gem_build_vars.csh
- \$NAWIPS/environ/bash.d/gem_build_vars.sh

Installation Notes

Download Site

The distribution may be found at <http://www.nco.ncep.noaa.gov/sib/nawips>. This Release Notes document is also available at this web site. The link to the download page is located at the bottom of the page.

Installation

After getting the necessary compressed tar file from the distribution page, unpack the tar file in your NAWIPS user directory. Please note that the “dot files” have been moved to subdirectories. The sample .cshrc and .profile files are in the sample_files/ subdirectory and show the proper use and locations for these files. Update all users’ .cshrc or .profile as needed.

Build the entire system as follows:

- `cd $GEMPAK/build`
- `external_libs_compile >&! EXTERNAL_BUILD_$NA_OS`
- `cd $NAWIPS`
- `make all >&! MAKE_ALL_$NA_OS`
- `make link >&! MAKE_LINK_$NA_OS`
- `cd $GEMPAK/utilities/a2conv`
- `make >&! A2CONV_MAKE_$NA_OS`

Repeat this process for each operating system.

System Requirements

The software has been built and tested on the following operating systems:

- Red Hat Enterprise Linux 5 (32 bit)
- Red Hat Enterprise Linux 5 (64 bit)
- Red Hat Enterprise Linux 6 (32 bit)
- Red Hat Enterprise Linux 6 (64 bit)