NAWIPS 7.1.0 Release Notes

Product Release Information

- **Product:** NAWIPS
- **Release Number:** 7.1.0
- **Release Date:** 7 Apr 2014

Introduction

This document contains the release notes for NAWIPS, version 7.1.0. 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 DA library and the Python scripts that request data from AWIPS II EDEX.
    a. Restricted the point data time retriever to return no more than 200 times.
    b. Changed the request for upper air times to use the new database column name.
    c. Modified the grid data retriever to always flip the grids to the GEMPAK orientation.
2. Enhanced the outlook processing to add new requirements from the SPC:
    a. Added MARGINAL and ENHANCED as categories for the severe weather Days 1-3 outlooks.
    b. Modified the Days 4-8 outlooks to have two categories instead of a yes/no line for each day.
3. Added more data sets to the altimeter wind speed data types for display in GPMAP and NMAP2. Also reorganized the altimeter significant wave height processing. This work was done by Greg McFadden, OPC.
4. Fixed problems in the XML-to-VGF and VGF-to-XML converters. Updated the applications to run on RHEL6. Fixed the line types and grouping conversion.
5. Updated the TAF decoder to handle miscoded reports. Added a table of stations to reject during the decoding process.
6. Fixed surface-based and layer-based parameter calculations for NSHARP. Also fixed the calculation of lapse rate where it would be incorrect if mandatory levels below ground were missing.
7. Modified the DCTAF decoder to fix the decoding of military reports. From L. Hinson, AWC.
8. Fixed the SIGWX BUFR encoder to correctly process the Cloud Distribution Code in the mid-level BUFR message. From L. Hinson, AWC.

9. Fixed the DCAIRM decoder to properly decode the low-level wind shear from the AIRMET text bulletins. From L. Hinson, AWC.
10. Fixed missing MVFR conditions on METAR and TAF plots. From L. Hinson, AWC.
11. Modified the GRIB2 function that creates a GEMPAK parameter name for probability grids. Updated the GRIB2 tables with missing parameter names for Snow and Freezing Rain grids from the WPC. This work was done by K. Tyle, UAlbany.
12. For NTRANS, added checks for the number of frames loaded to the loop and step commands. Even though the GUI buttons were disabled, the hot keys still invoked the functions with zero frames and caused a crash.
13. Updated the SSD web address in the SPENES output product at the request of NESDIS/SAB.
14. Fixed the shapefile map processing to accommodate recent updates to the NWS maps.
15. Modified the CSH and BASH environment configuration scripts to add to the PATH variable instead of overwriting it. Reorganized the various subsections of the scripts into separate scripts.
16. Maps and Tables
    a. Updated the hurricane cone error tables for the Atlantic and Eastern Pacific with values provided by the NHC.
    b. Updated the TCA breakpoints for the 2014 hurricane season with information provided by the NHC.
    c. Updated the GRIB2 parameter and vertical coordinate tables for new combinations for the upcoming GFS upgrade scheduled for Summer 2014.
    d. Updated the volcano ID numbers at the request of NESDIS. NESDIS/SAB provided the new Smithsonian Global Volcanism Program (GVP) table of active volcanoes.
    e. Added a satellite type and color lookup table for the AIRS images.
    f. Updated the oil platform locations in the surface station table.
    g. Updated the Alaskan upper air station information.
    h. Updated the VOR and Snap station tables to add MMB. Provided by L. Hinson, AWC.
    i. Added new BUFR tables for melBUFR for versions 20 and 21 issued by the WMO.
    j. Updated maps, bounds and station tables for county, cwa, fire weather, high seas, marine and zones valid on 3 December 2013. The updates were issued by the NWS.
    k. Applied fixes to the 3 December 2013 set of maps.
    l. Updated maps, bounds and station tables for zones, county, cwa, coastal marine, offshore marine, fire weather and PSA (predictive service areas) valid on 1 April 2014. The updates were issued by the NWS.

List of Modified Tables

- $GEMTBL/hcnadv/altker.tbl, eptker.tbl
- $GEMTBL/stns/tcabkpt.tbl, tcabkpt_land.tbl, tcabkpt_ovl.tbl, tcabkptlz.tbl
- $GEMTBL/grid/g2varsncep1.tbl, g2varswmo2.tbl, g2vcrdncep1.tbl, g2vcrdwmo2.tbl
- $GEMTBL/stns/volcano.tbl

- $GEMTBL/sat/imgtyp.tbl
- $GEMTBL/luts/airso3anom.tbl
- $GEMTBL/grphgd/cat.tbl, grphgd.tbl
- $GEMTBL/nmap/outlook*.lpf
- $GEMTBL/pgen/awdef.tbl, grptyp.tbl, outlook.tbl, outlooktimes.tbl, p2cdef.tbl
- $GEMTBL/stns/sfstns.tbl, snstns.tbl, snstns_land.tbl
- $GEMTBL/stns/snap.tbl, vors.tbl
- $GEMTBL/melbufr/B3M-000-020-*, B3M-000-021-*
- $GEMTBL/bounds/countybnds.tbl, cwabnds.tbl, firebnds.tbl, mzbnds.tbl, mzcntybnds.tbl, npsabnds.tbl, pfzbnds.tbl
- $GEMTBL/stns/county.tbl, countynam.tbl, firezones.tbl, marinenames.tbl, mzcntys.tbl, npsa.tbl, zones.tbl
- $GEMTBL/stns/tafblacklist.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/hihsuo.nws, lohsuo.nws, mehsuo.nws, tphsuo.nws
- $GEMMAPS/himouo.nws, lomouo.nws, memouo.nws, tpmouo.nws
- $GEMMAPS/himzcn.nws, lomzcn.nws, memzcn.nws, tpmzcn.nws
- $GEMMAPS/hinpsa.nws, lonpsa.nws, menpsa.nws, tpnpsa.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/gemenviron.csh, gemenviron.sh
- $NAWIPS/environ/csh.d/gem_awips_python.csh, gem_build_vars.csh, gem_env_vars.csh, gem_motif_path.csh, gem_path.csh, gem_path_extras.csh, gem_printers.csh, gem_set_os.csh
- $NAWIPS/environ/bash.d/gem_awips_python.sh, gem_build_vars.sh, gem_env_vars.sh, gem_motif_path.sh, gem_path.sh, gem_path_extras.sh, gem_printers.sh, gem_set_os.sh, gem_x_display.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. A user id and password are required to access the download area. This will be provided to site administrators via a phone call.

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)

Suggested Installation for the AWIPS Environment

The following configuration is used on NTBN, OPCN and HPCN. It allows for easy updating, but does require a separate user account to store the NAWIPS/GEMPAK tables, libraries and binaries.

1. If it does not exist, create a user account named “gempak”. Log into the “gempak” account.
2. Get the source tar file from the download web site above and transfer it to the AWIPS system.
3. Sample .cshrc and .profile files may also be found on the download site.
4. Make a directory for the current release (i.e., mkdir v7.0.0) in $HOME.
5. Go to the release directory and unpack the source tar file.
6. Follow the build instructions above.

The current data flow paradigm for the AWIPS does not provide for creating or transferring GEMPAK files to the AWIPS system. Therefore, all of the data-related environment variables will not be used. Any data access, while on an AWIPS system, will be through the database. Sample entries for the data types are in $GEMTBL/config/datatype.tbl and the XML control files are in $GEMTBL/data-access/*.xml.