Release Notes

Application Name: NAWIPS
Application Version: v7.6.0
Release Date: April 30, 2019

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Introduction

NAWIPS v7.6.0 release notes. Highlights of this release:

- Maps/bounds/Tables files update as of April 2, 2019.
- Lightning decoder enhancements in order to handle LDM outages.
- Fixed Day 1 & Day 2 prob2cat operational issues.
- Graph-to-grid enhancements for weak contour gradients in CPC post-processing graphics.
- Updated scripts to build NAWIPS version 7.6.0 software on RHEL 7.

This release note covers the following Requests for Change.

RFC NUMBER	RFC DESCRIPTION	Release Date
5665	NAWIPS v7.6.0 release	April 30, 2019

System Requirements

Operating Systems Supported

The supported operating systems for installing the product are:

- RedHat 6 Linux 32 bit Version 2.6.32-754.3.5
- RedHat 6 Linux 64 bit Version 2.6.32-754.3.5
- RedHat 7 Linux 64 bit Version 3.10.0-862.14.4 (beta version)

System Requirements

The system requirements for NAWIPS are:

Minimum System Requirements

Processor: Capable of running RedHat Linux 64 bit Version 2.6.32
- Memory Requirements: 4G
- Operating System Version (see above)
- Disk Space: 12G

Recommended System Requirements

- Memory Requirements: > 12G
- Operating System Version (see above)
- Disk Space: 40G

Fixed Issues

Operational and Maintenance Fixes

The following list contains issues reported in maintenance requested by users that are included in this version:

Ticket #	DESCRIPTION
NAWIPS-5	Addressed GEMPAK year 2020 issue so the 2-digit year beyond 21 up to 39 is assumed to be 2021 to 2039. Any other 2-digit year is assumed to be in the 1900s, i.e., 1940 through 1999.
NAWIPS-13	Fixed incorrect format of the first two header lines in International SIGMET
NAWIPS-22	Fixed graphical artifacts that appear in CPC post-processed graphics as the GRPHGD algorithm is producing rough edges in weak gradient areas.
NAWIPS-28	Implemented SCN-18-37: Changes to the boundaries of Fire Weather Forecast Zones in Western Wyoming, effective June 25, 2018
NAWIPS-29	Fixed the contour algorithm that produces duplicate and/or segmented lines when using gdplot3 with high resolution models
NAWIPS-31	Implemented SCN 18-41: Changes to Public Forecast Zone for WFO Pocatello, ID, effective July 10, 2018
NAWIPS-32	Doubled XML string allocation in textlib module (afgetairmetxml.c) to mitigate nmap2 crashes during G-Airmet production
NAWIPS-34	Geo-locations of the volcanoes in volcano.tbl match PGEN volcano locations
NAWIPS-42	Updated sounding station RAP to UNR, SD in snstns.tbl
NAWIPS-43	Baselined 2019 breakpoint tables from NHC
NAWIPS-45	Fixed AREA coordinates https://jira.dev.nids.noaa.gov/browse/NAWIPS-43 computed from GPMXPLT
NAWIPS-49	Implemented SCN18-48: Public County Shapefile Renaming for WFO Newport/Morehead City, NC, effective July 10, 2018
NAWIPS-51	Increased maximum lightning strikes from 160K to 800K per hour
NAWIPS-52	Updated high resolution world map, including South Sudan country boundary and Canadian Provincial borders between Northwest Territories and Nunavut
NAWIPS-53	Fixed Day 1 prob2cat additional line issues which once occurred on May 19, 2018
NAWIPS-55	Added the following Canadian metar stations to sfstns.tbl:

	CABR 713250 BEDFORD_RANGE CPAT 719860 ATLEE_AUTO8
NAWIPS-56	Evaluated FV3 against NAWIPS baseline scripts and applications
NAWIPS-57	Fixed two Day 2 prob2cat operational issues occurred on July 20, 2018 1. Lines drawn backward (counterclockwise) 2. Missing the "SLGT" contour line
NAWIPS-58	Fixed NEXRAD table (nexrad.tbl): Changed LGX (Langley Hill, WA) ID number to 870
NAWIPS-59	Implemented SCN18-73: Service Transfer of Lawrence and Randolph counties, AR to the Little Rock NWS Weather Forecast Office, Effective October 2, 2018
NAWIPS-62	Implemented SCN18-64: Transfer of Open Lake Forecast and Open Lake Watches, Warnings and Advisory Responsibility for Lake Michigan from WFO Chicago to WFO Milwaukee Effective September 5, 2018
NAWIPS-63	Created testing scripts to test modules/applications https://jira.dev.nids.noaa.gov/browse/NAWIPShttps://jira.dev.nids.noaa.gov/browse/NAWIPS-91-91nder $OS_BIN prior to each release
NAWIPS-64	Remove .so from Makefiles that were inadvertently added in v7.5.0
NAWIPS-67	Enabled lightning decoder to restart after LDM crashes on operational servers. Also enabled data store to pre-existing lightning files.
NAWIPS-73	SCN18-119 Updated: Changes in Fire, Public, and Marine Forecast Zones and Boundary Changes for NWS WFO Newport/Morehead City, NC,effective April 2, 2019
NAWIPS-78	SCN18-113: Changes to Marine and Land Zones of Coastal Northwest California: Effective April 2, 2019
NAWIPS-79	SCN18-114 Updated: New Fire and Public Forecast Zones and Boundary Changes for Lancaster County in north central South Carolina effective April 2, 2019
NAWIPS-80	SCN18-115: Changes to Public and Fire Forecast Zones for WFO Gaylord, MI effective April 2, 2019
NAWIPS-81	SCN18-116 Updated: Changes in Public and Fire Weather Forecast Zones for Central California effective April 2, 2019
NAWIPS-82	SCN18-117 Updated: Changes in Fire and Public Zones for NWS WFO Jacksonville, FL effective April 2, 2019
NAWIPS-83	SCN18-118: Implementing improved public zone coverage for WFO Midland/Odessa, TX, effective April 2, 2019

NAWIPS-84	SCN18-120 Updated: Change in Fire Weather Forecast zones and boundaries for WFO Morristown and Nashville, TN, effective April 2, 2019
NAWIPS-91	Changed PLB to PBG in sfstns.tbl.
NAWIPS-95	RHEL 7 get healthy: Part D: Update daily and release build scripts

Known Issues, Limitations and Restrictions

Known Issues in RHEL 7 beta version

Ticket #	DESCRIPTION
NAWIPS-10	Ascat wind speed is set to zero
NAWIPS-74	Failed decoders, e.g., dccsig, dcairm, dcncon, dcairm, dcwarn
NAWIPS-77	vgf BUFR data conversion generates zero cloud tops, jet stream flight levels, etc.
NAWIPS-94	Distorted exported GIF images and maps with 8-bit or 16-bit color depth

Packages required to build or to run NAWIPS	To build the NAWIPS software, make sure the following packages exist:
	    /usr/include/Xm/* (install motif and motif-devel)
	    /usr/bin/gfortran (replace g77, which converts f2c then complies as C programs)
	    /usr/bin/gcc
	    /usr/lib64/libXm.so (To run e.g., ntl)
	    link $GEMINC/MCHPRM.RPM to $GEMINC/MCHPRM.Linux.gfortran

Limitations

N/A

Restrictions

N/A

Deployment Instructions

NCWCP Workstation Deployment Instructions

STEP	ACTION
1	ssh nawips1@vm-lnx-ncosrv
2	cd .operations
3	vi *_<center> (e.g., opc) <Change the files to source the appropriate account> (e.g., nawips1)

NCWCP Compute Farm Deployment Instructions

STEP	ACTION
1	ssh nawcf1@vm-lnx-sibcf1
2	cd .operations
3	vi *_<center> (e.g., opc) <Change the files to source the appropriate account> (e.g., nawips1)

Remote Centers Deployment Instructions

STEP	ACTION
1	Save a copy of the keys to a temporary folder ($TEMP): cp $OS_BIN/etc/.kf/* $TEMP
2	Download the compressed tar file from the distribution site, http://www.nco.ncep.noaa.gov/sib/nawips/distribution, and unpack the file in an NAWIPS user directory.
3	Copy the lighting decoder keys over: cp $TEMP/* $OS_BIN/etc/.kf
4	Update all users' .cshrc or .profile as needed
5	Build the new NAWIPS system cd $GEMPAK/build external_libs_compile >&! EXTERNAL_BUILD_$NA_OS

6	cd $NAWIPS
	make all >&! MAKE_ALL_$NA_OS
	make link >&! MAKE_LINK_$NA_OS
7	cd $GEMPAK/utilities/a2conv
	make >&! A2CONV_MAKE_$NA_OS
8	To install NAWIPS onto AWIPS systems, follow instructions from this link