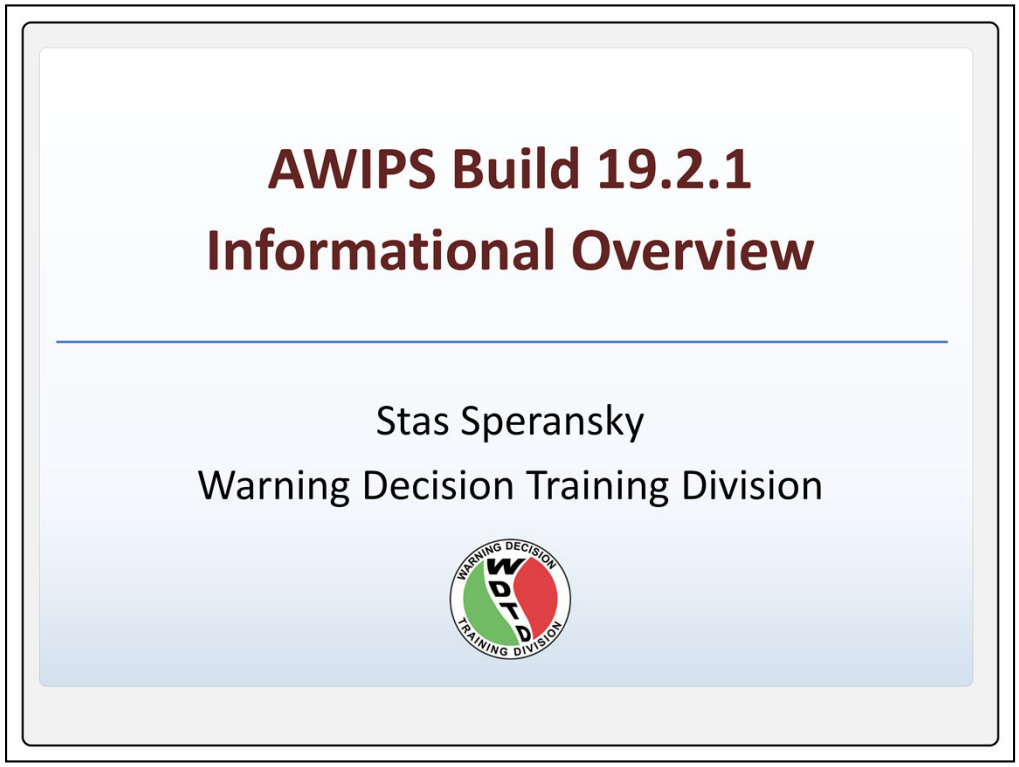
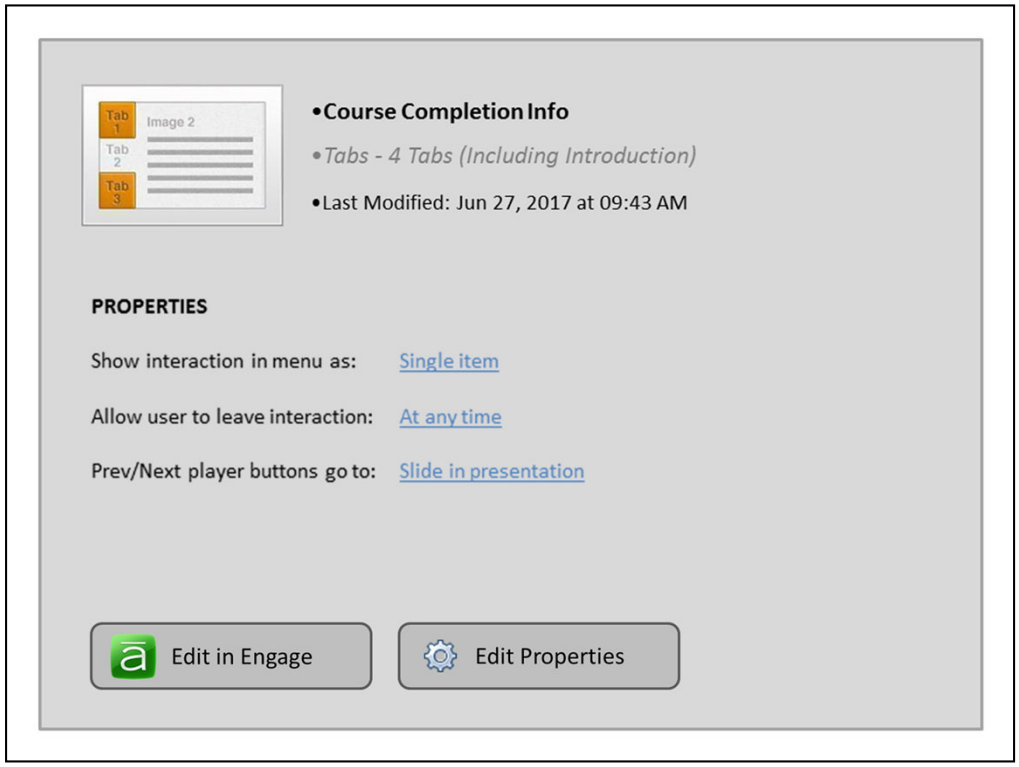
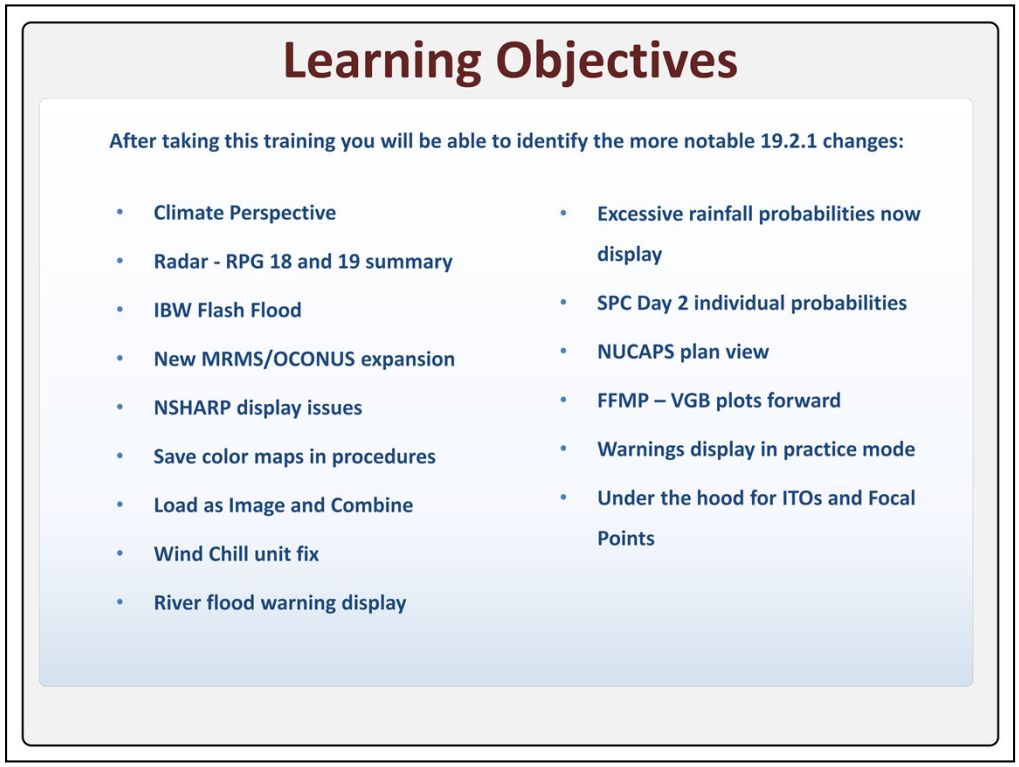


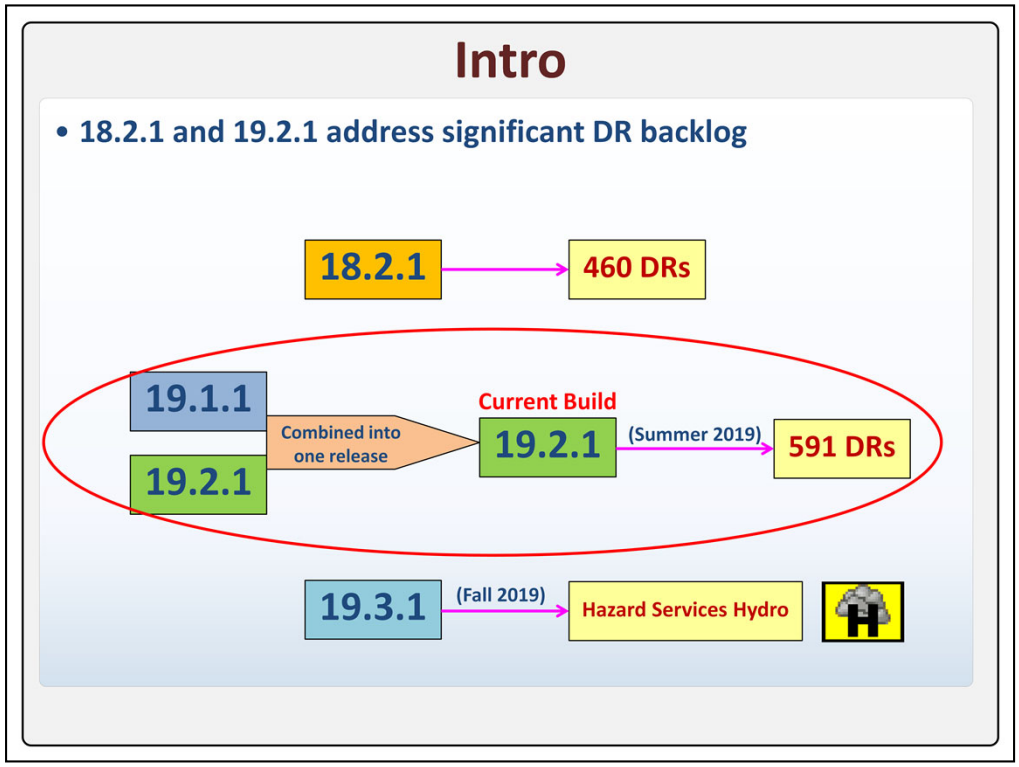
Welcome to the AWIPS Build 19.2.1 Informational Overview. I'm Stas Speransky from WDTD, and I will be introducing you to some of the significant changes in 19.2.1.



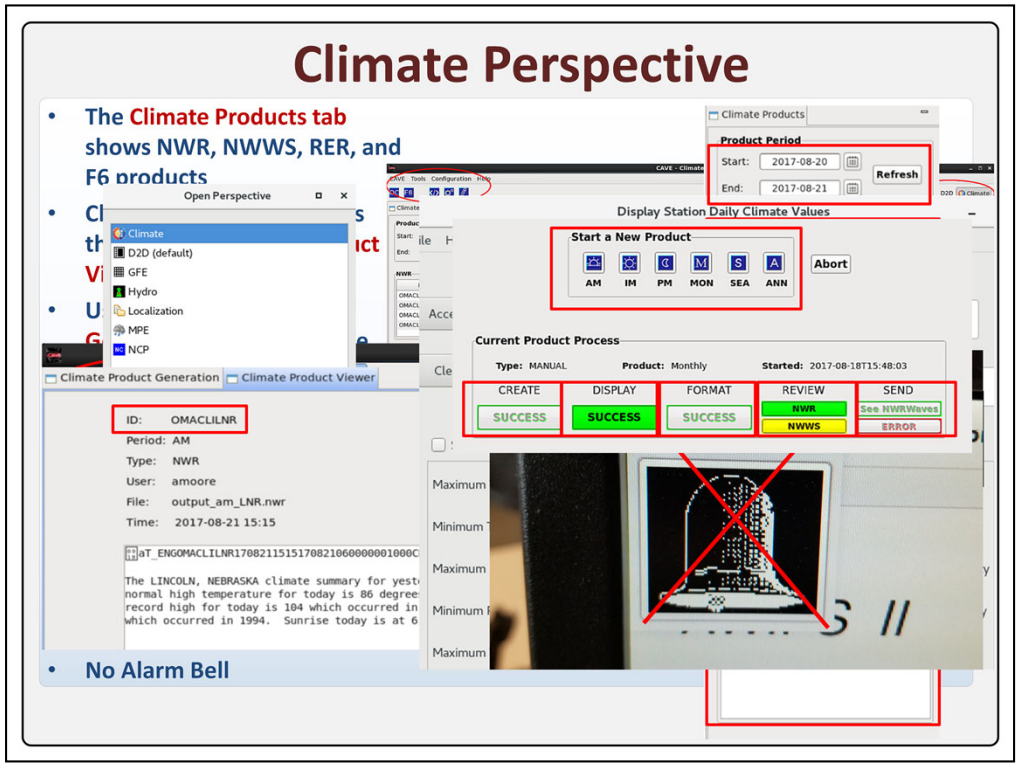
Go ahead and review the slides, and then access the references pages in the VLab from AWIPS LX workstations or the Internet. For a comprehensive list of all enhancements and bug fixes in 19.2.1, see the Resources tab in the upper-right part of the player.



The goal of this training is to provide a general awareness of the following new capabilities and recent changes in around 15 minutes.

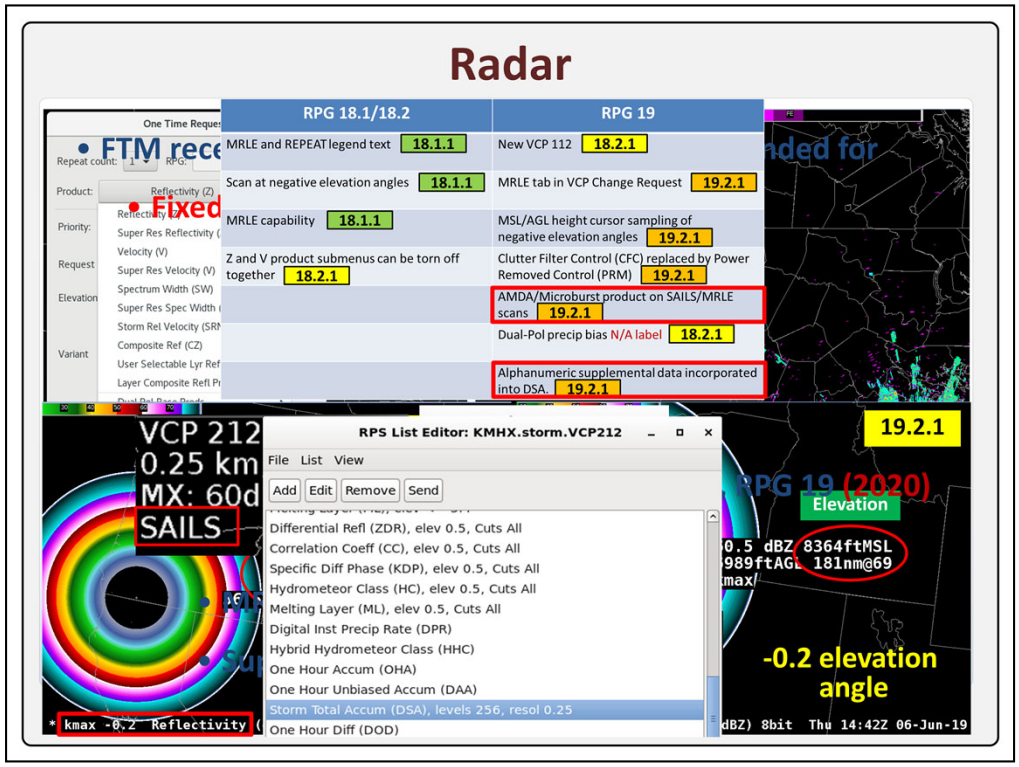


This is the second of 2 DR backlog builds. The goal of this release is to address a large portion of the significant DR backlog that has accumulated since AWIPS-2 was fielded in 2015. This overview will address the more commonly used higher-impact changes and some of the small enhancements, but if you would like to see a formatted list of the DRs, see the Resources tab for the 19.2.1 DR spreadsheet. After 19.2.1, 19.3.1 is still planned to primarily contain Hazard Services, a major enhancement that will provide new hydro product generation capability that will ultimately replace all watch, warning, and advisory generation software in AWIPS.



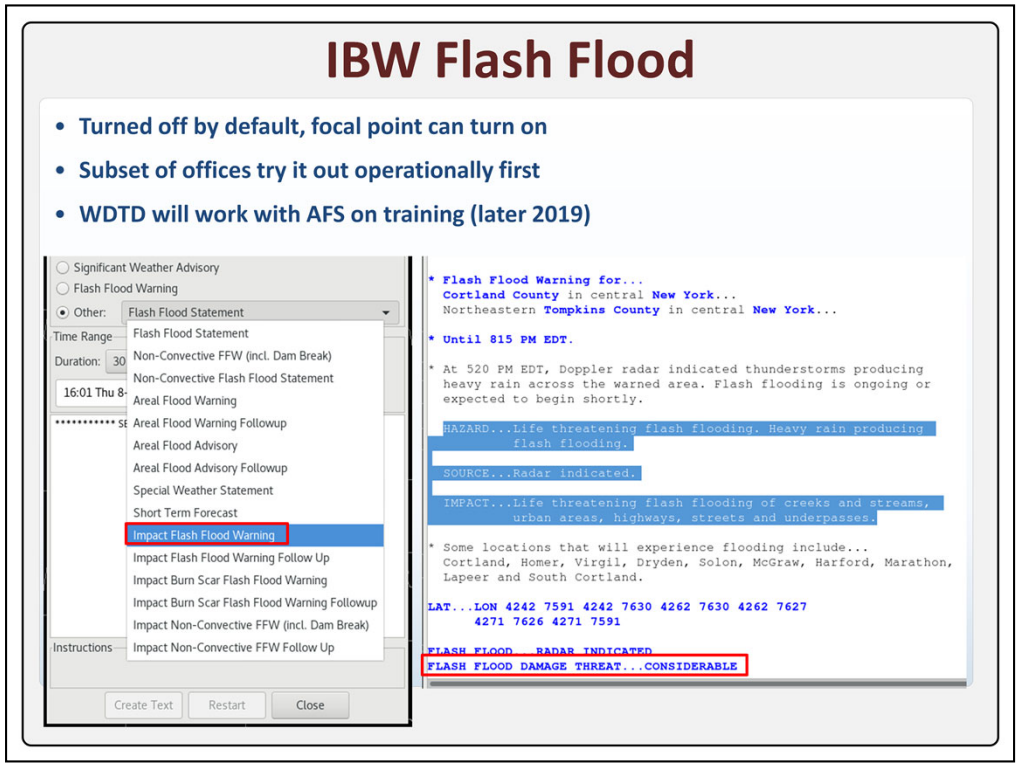
The Climate software tools used to generate and send out daily climate reports have been integrated as a new perspective in CAVE. The Climate Perspective has been available for viewing since AWIPS 18.1.1, however its field implementation has been delayed until this build. To the user, the graphical interface and workflow is very similar. Only the locations of tools and commands are mapped out to new buttons, menus, and tabs as a result of the AWIPS integration. Once you load the Climate perspective from the perspective loader, there are three important tabs. The “Climate Products” tab on the left has a list of all the existing climate products. You can also search for previous products using the start and end dates. If you click on any of the NWR, NWWS, RER, or F6 products, they will be displayed using the “Climate Product Viewer” tab on the right. To generate climate data and products, you can use the menus at the top of the perspective, the buttons immediately underneath, or the buttons on the “Climate Product Generation” tab in the middle. Once the user starts generating a new product for the morning, intermediate, and afternoon daily periods, or the monthly, seasonal, or annual periods, the status of the product creation is displayed in the Climate Product Generation tab. The colored buttons are dynamic and can be selected to reveal more information about the status of specific tasks, including the Create, Display, Format, Review, and Send stages of product generation. During the transition to using the new Climate perspective, the old software will still be available until the Climate focal point completes configuration of the new software. There are some important caveats to mention, though. The Climate perspective uses a new database, so you need to use either the old or the new way. To use both, you would have to maintain separate

climate databases. One of the notable improvements in the new version is the more standardized window interaction for data adjustment, so there are no longer any limitations on using the delete key or manual typing restrictions like in the previous software. On a final note, in the new version, a silent AlertViz banner is triggered when the Climate software is run instead of the old Alarm Bell, so your focal point may want to set up a new alert popup banner. For more information on using the Climate perspective see the user guide linked in the Resources tab.

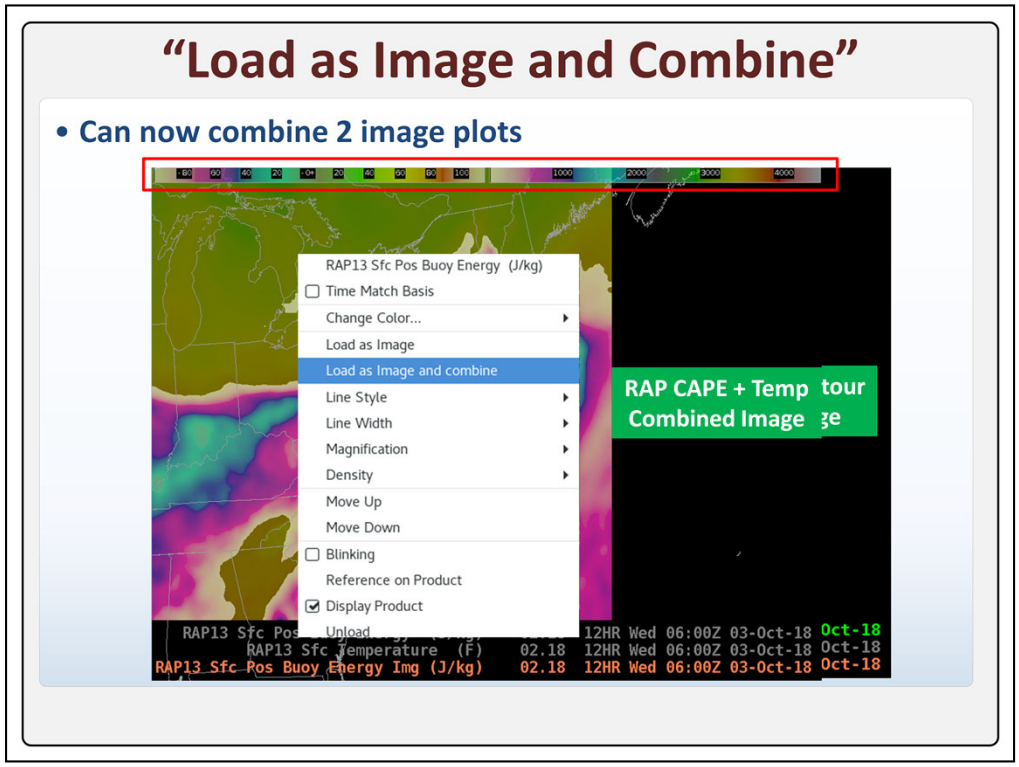


There have been some Radar enhancements in recent builds that can be grouped into the RPG 18 and 19 releases. RPG 18.1 is currently fielded at most sites. RPG 18.2 is planned for July and August of 2019, with RPG 19 after that in 2020. RPG 18.2 will contain the Mid-Volume Rescan of Low-Level Elevations, or MRLE, capability which provides an extra sub-volume scan of a limited number of low elevation angles. In 18.2 a limited number of sites will also obtain a supplemental low elevation angle. To help identify the SAILS or MRLE mode for WSR-88Ds, the AWIPS base data radar displays will display the word “SAILS” in the upper-left text legend when viewing any 0.5 degree SAILS tilts and “MRLE”” when viewing any of the tilts in the extra MRLE sub-volume scan. For Terminal Weather Doppler Radar data the only text label change will be the word “REPEAT” on tilts on its extra sub-volume scan. In 19.2.1, the number of MRLE cuts used in the extra sub-volume scan can be specified in the VCP Change Request GUI from AWIPS. The radar sampling heights for the few sites with negative elevation angles has also been fixed. Additionally, in RPG Build 19 and AWIPS Build 19.2.1, the RPG will be updated to generate the AMDA/Microburst product on SAILS and MRLE scans. RPG Build 19 also incorporates alphanumeric supplemental data into the dual pol storm total product. AWIPS 19.2.1 also includes a new menu for the Power Removed Control product which will replace the Clutter Filter Control. Please see an attached presentation in the resources tab for more information on the Power Removed Control Product. And finally, not tied to any RPG release, there has been some confusion with Free Text Messages being received by offices to which the Free Text Messages were not intended for. This has been fixed to only send the

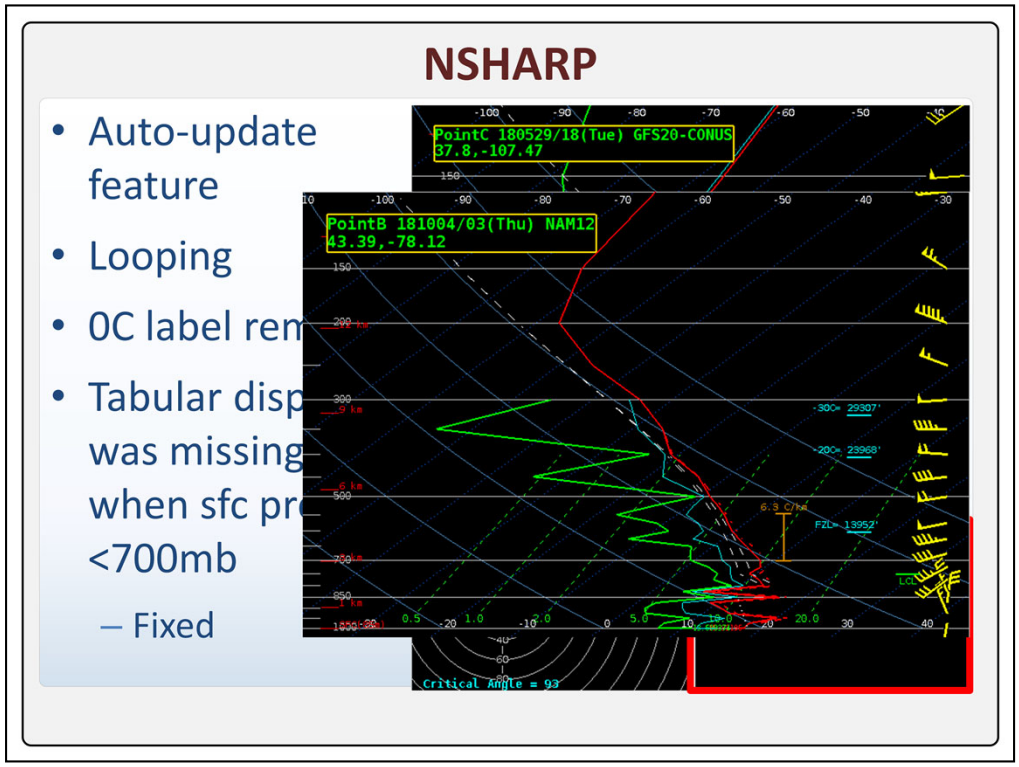
Free Text Messages to the single destination RPG for which the Free Text Message was originally entered.



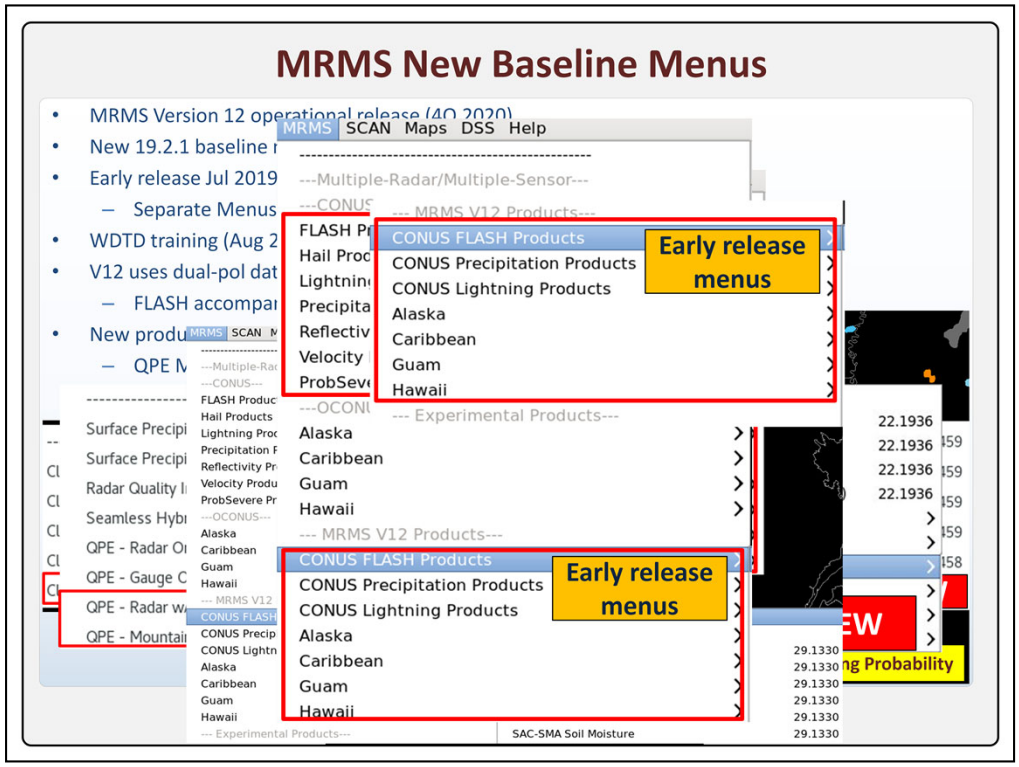
IBW flash flood is included in 19.2.1, but it is turned off by default. The focal point can turn it on for testing, but the plan is for a subset of offices to try it out operationally first and then there will be a coordinated start date for everyone else to start using. There will also be a later date when the Wireless Emergency Alerts are changed over, so the alerts will only be triggered for the new considerable or catastrophic tags. WDTD will be working with AFS on webinars and further training later in 2019.



In 19.2.1, you are now able to combine 2 image plots in the same map editor display using the "Load as Image and Combine" feature. This can be done by right clicking on the product legend text of a contoured product whenever an image field of another product is already loaded. Note that there are two distinct colorbars at the top.



Build 19.2.1 supports an auto-update feature in NSHARP. The display will auto-update with as new model runs become available. Another update in this build was to include a loop feature upon loading. When the loop button is pressed, NSAHRP will load a looped display for products accessed from the Upper Air menu as well as model derived soundings. In prior builds, the 0 degree label would occasionally disappear from the display when zooming in using the mouse scroll wheel due to the dynamic nature of NSHARP. In 19.2.1, the 0 degree label always remains on the display as the user adjusts the zoom. In recent builds, there was a issue with missing tabular display data when the surface pressure is less than 700mb. This has been fixed in this build.



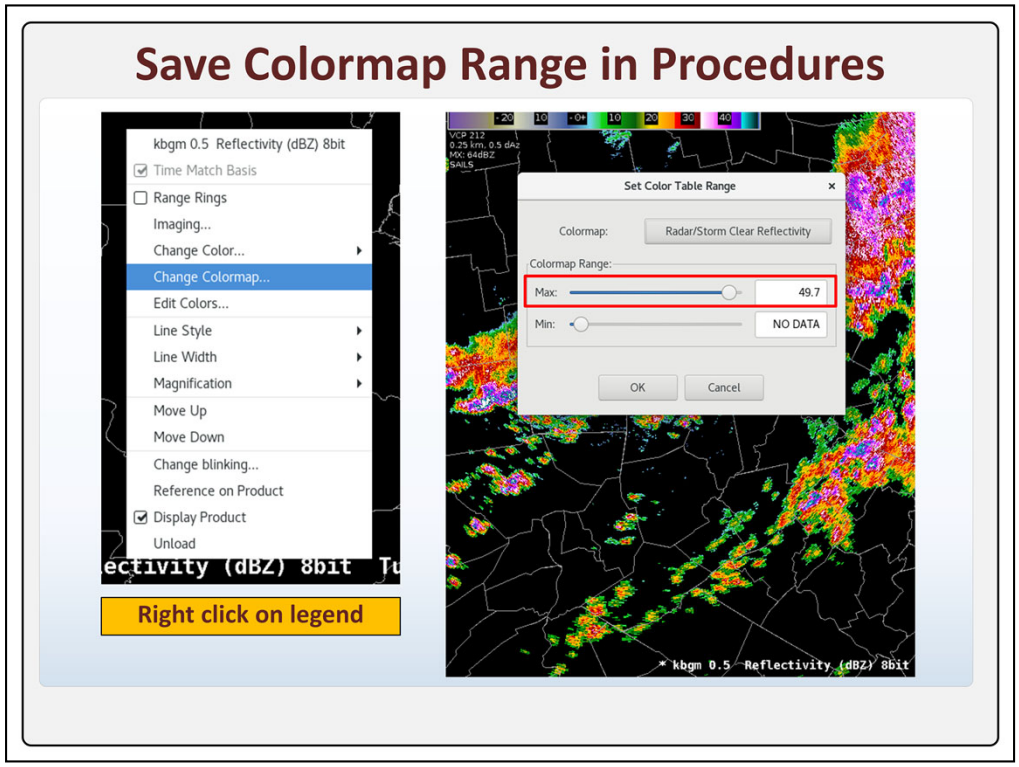
In 19.2.1 there are a few new baseline MRMS menus to support future products coming with the operational deployment of MRMS version 12 in 4th quarter of 2020. The baseline menus won't work until late 2020, but in July of 2019 regional headquarters started providing early access to v12 using a second set of menus and a data feed through LDAD that focal points can set up through the Software Collaboration Portal, or SCP.

WDTD is releasing training on v12 in Aug 2019 to support the early access, but here I will provide a high level overview of v12 and the 19.2.1 changes. V12 provides a major upgrade to MRMS hydro products by explicitly using dual-polarization data and new techniques like specific attenuation in precip estimates. Since FLASH is based off of MRMS precip estimates, FLASH products accompany the v12 hydro changes.

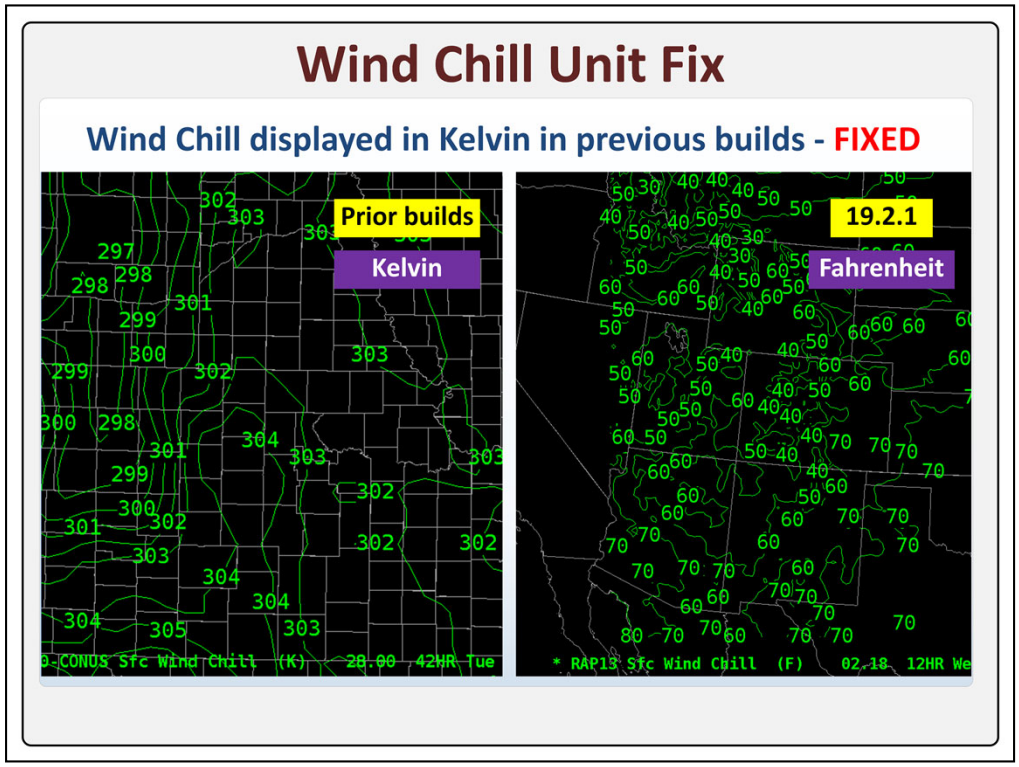
V12 also includes the new QPE Multi Sensor Pass 1 and Pass 2 products that utilize a combination of gauges and model data to gap fill poor radar coverage areas. 19.2.1 has menu placeholders for these hourly products that are available one hours and two hours, respectively, after the valid time.

Additionally, new Cloud-Ground Lightning Probability products are in v12. An improved 30 minute product will replace the old 30 minute product and a new 60 minute product will be added in the 19.2.1 menu. Additionally, a subset of the current MRMS products is included in v12 for the OCONUS domains including

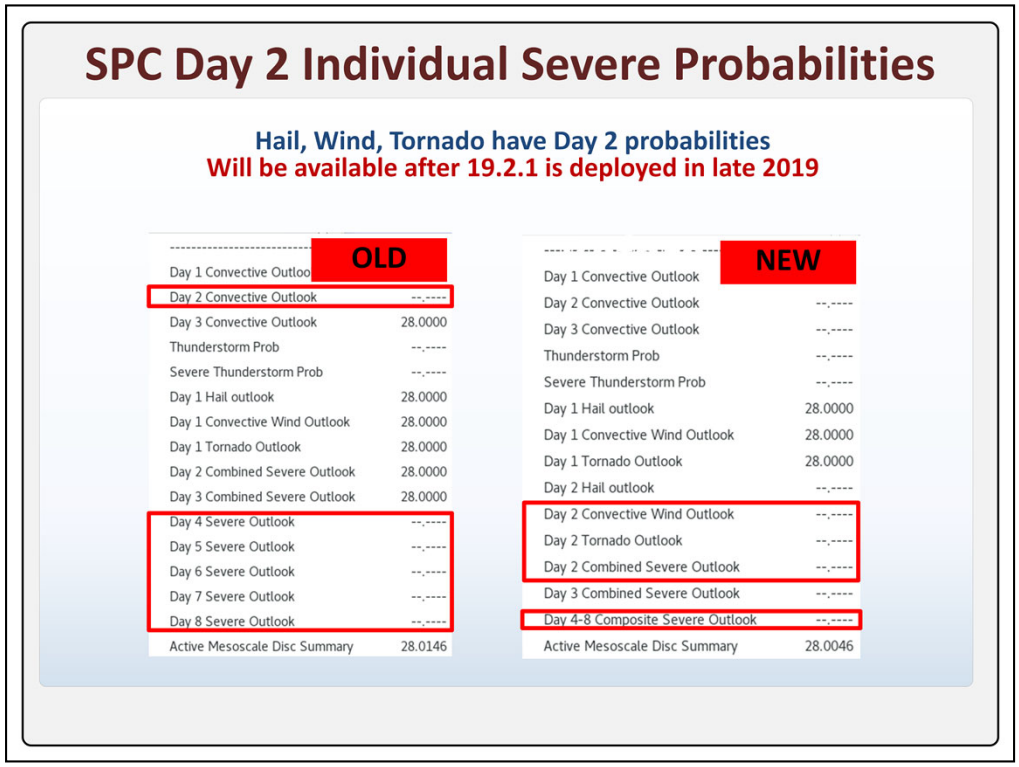
Alaska, the Caribbean, Hawaii and Guam. 19.2.1 provides new menus for those as well. So just remember the 19.2.1 baseline MRMS menus will continue using the operational MRMS data you have been used to, and for early access to v12 your focal point will need to set up the LDAD ingest and an additional set of v12 menus.



In prior builds, when you used the Change colormap menu to shift the range over which the colormap is assigned, it would not save in a bundle. Instead, the colormap would revert back to the default. In 19.2.1, this issue is now fixed and you can change the range and have it save in your bundles for next time.

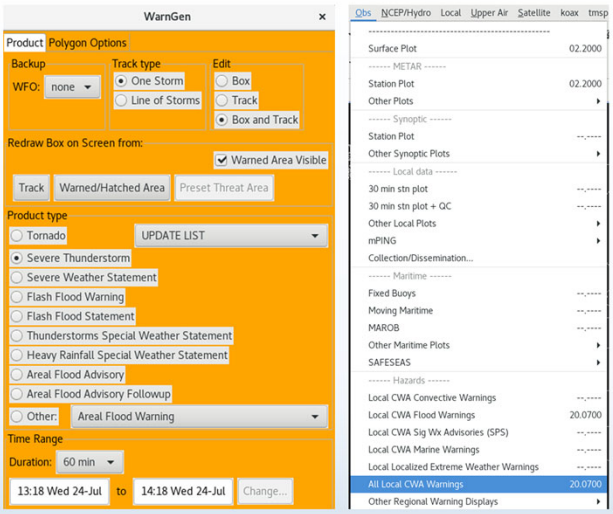


In previous builds, model derived wind chill parameters were displayed in Kelvin. This has been fixed in 19.2.1 to display in Fahrenheit.

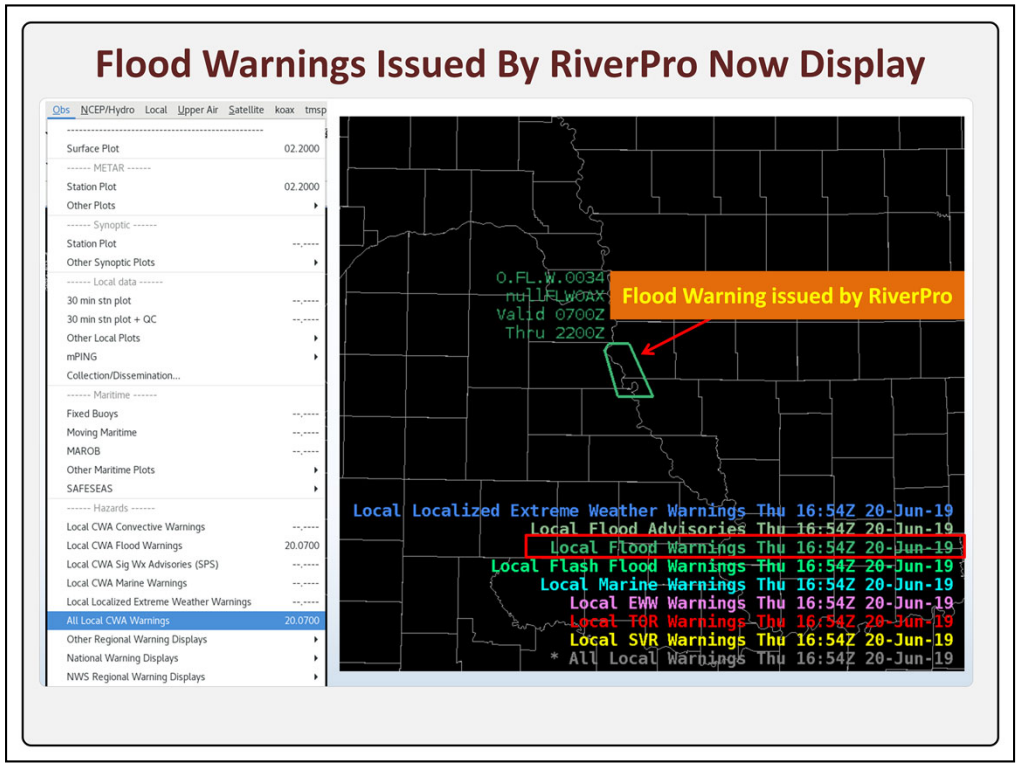


The SPC outlook menu is different in this build. There are now individual day 2 probabilities for hail, wind, and tornado. However, currently you cannot view these. Deployment of the new day 2 probabilities is planned for after 19.2.1 is fully deployed sometime in late 2019. Additionally, note that Day 4-8 is now a combined outlook.

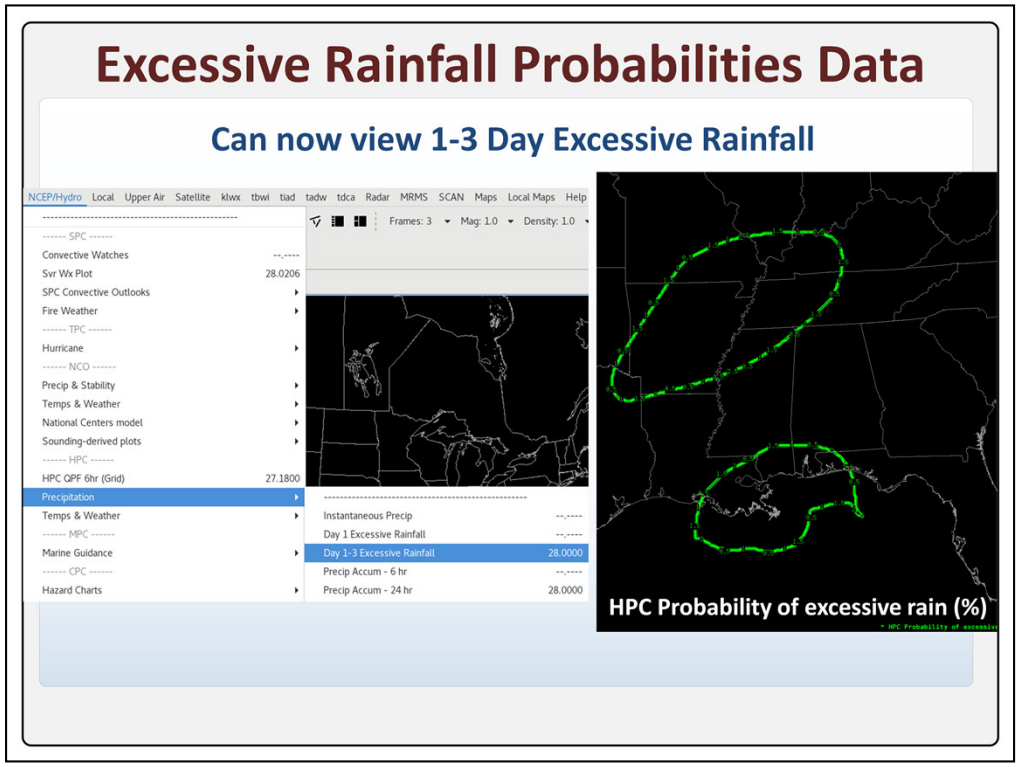
Warnings Display in Practice Mode



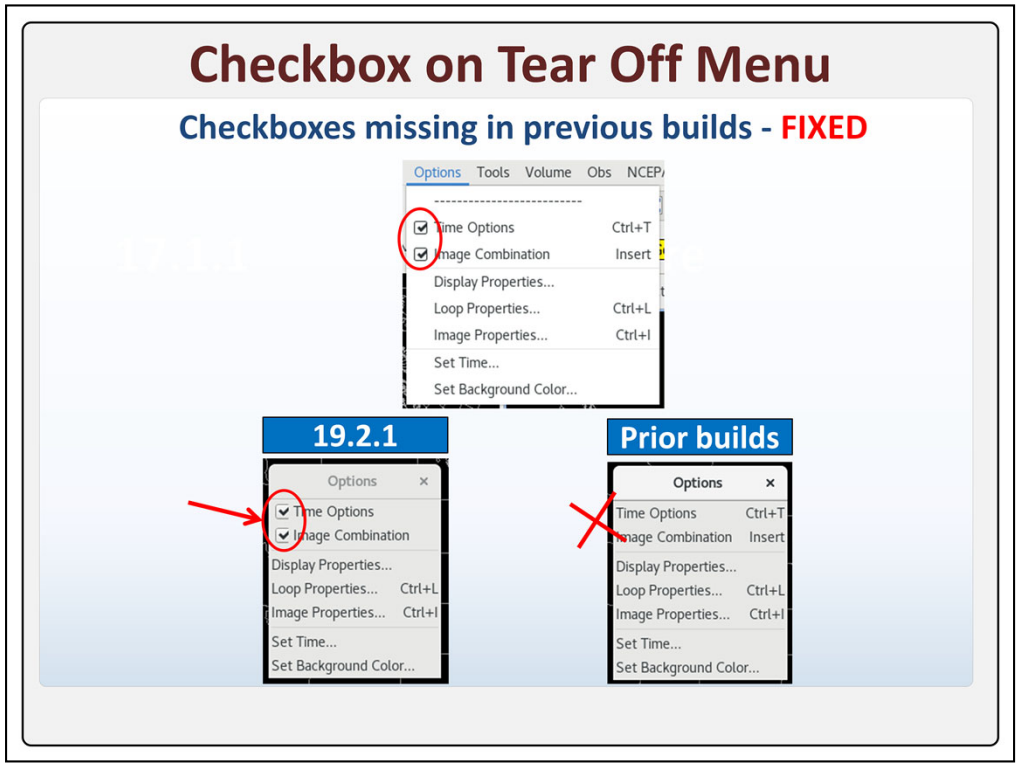
In pervious builds, warnings issued using WarnGen in practice mode would not display. This issue is now fixed.



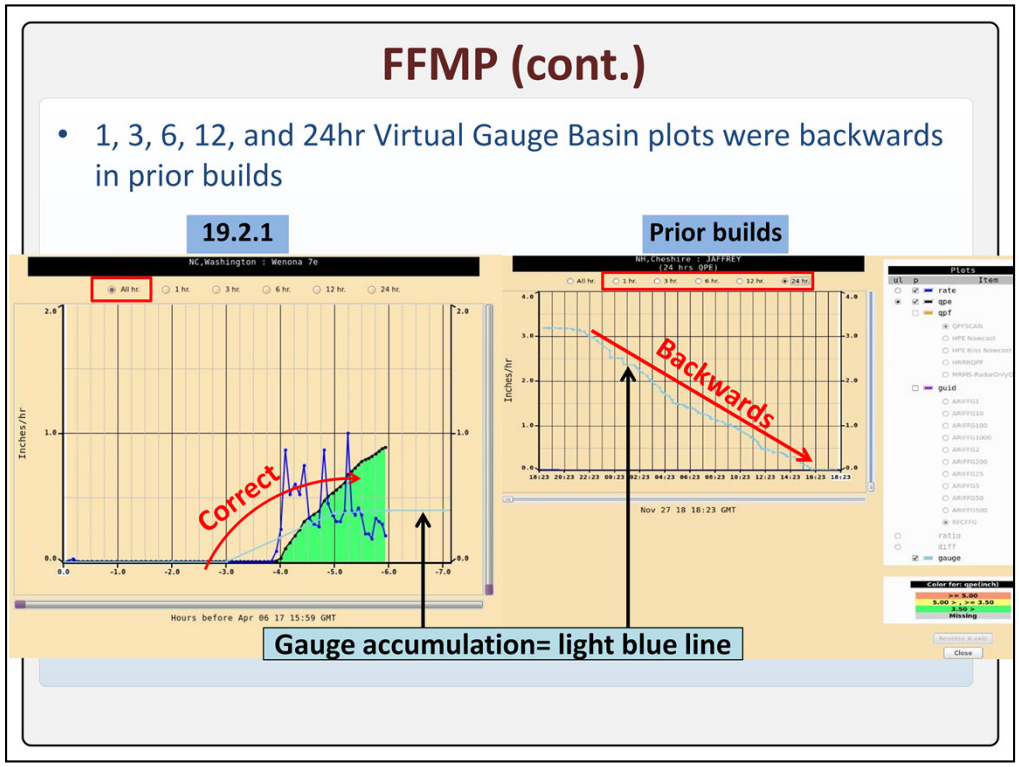
There have been issues displaying Flood Warnings issued by RiverPro in past builds when selecting All Local CWA warnings from the Obs pulldown menu. This is now fixed in 19.2.1 and they should display just fine.



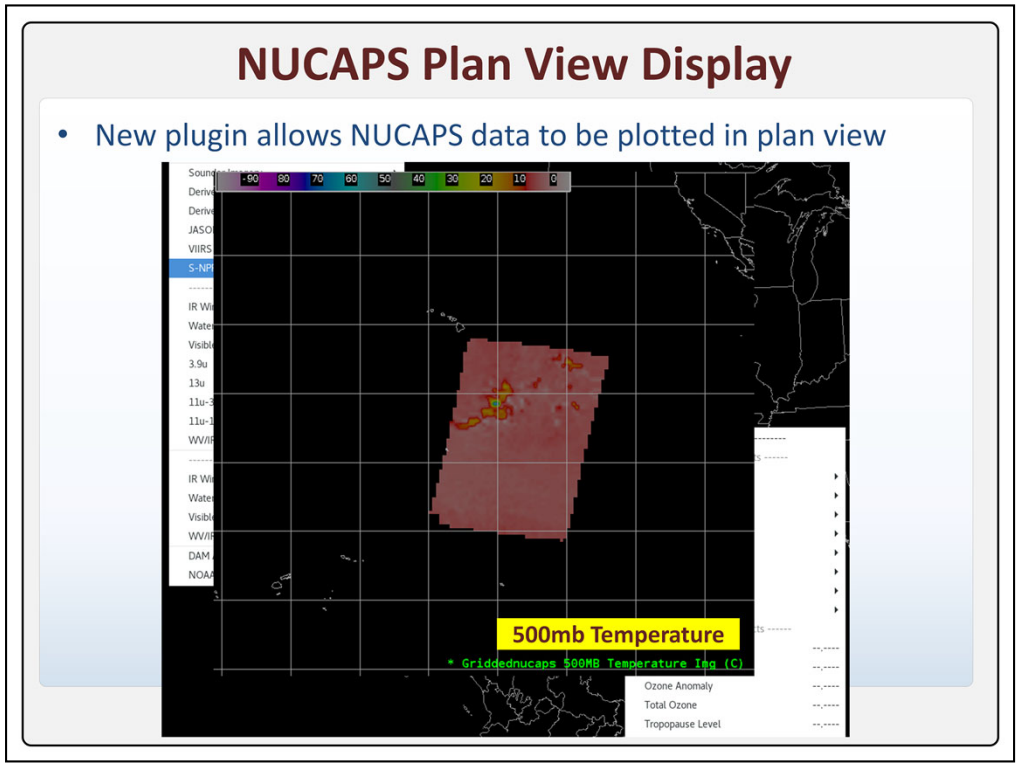
1-3 Day Excessive rainfall data now plots without issues.



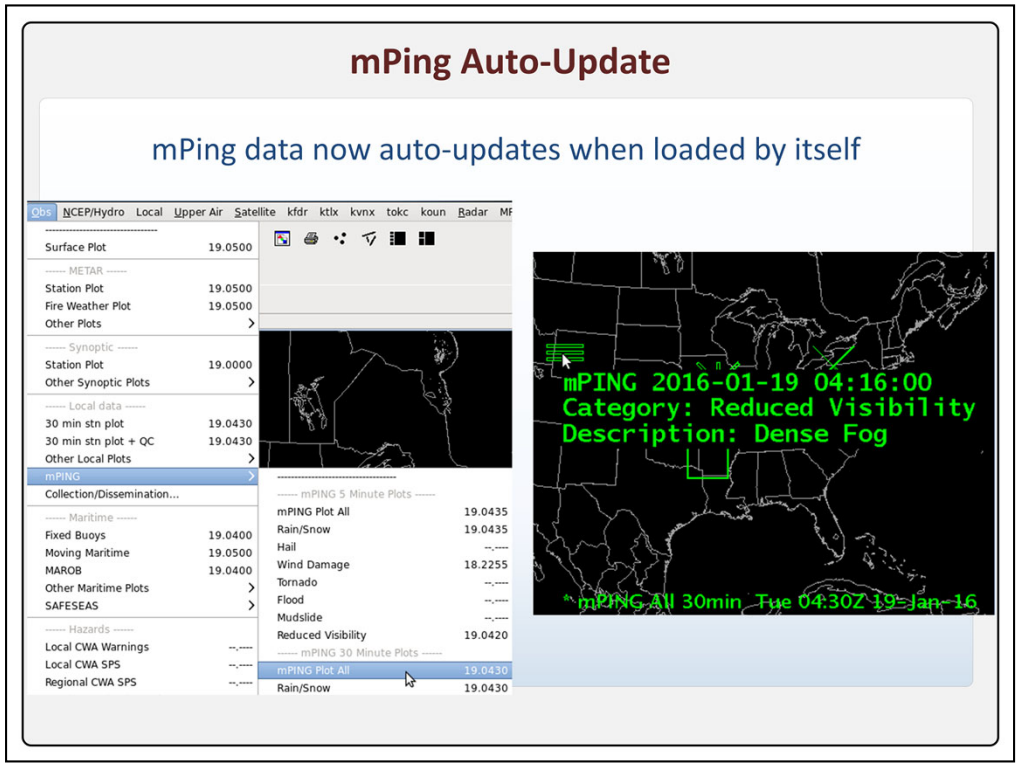
Submenus that have checkboxes such as the Options menu, did not maintain the checkboxes once the menus were torn off in previous builds. This inconsistency has been fixed in 19.2.1



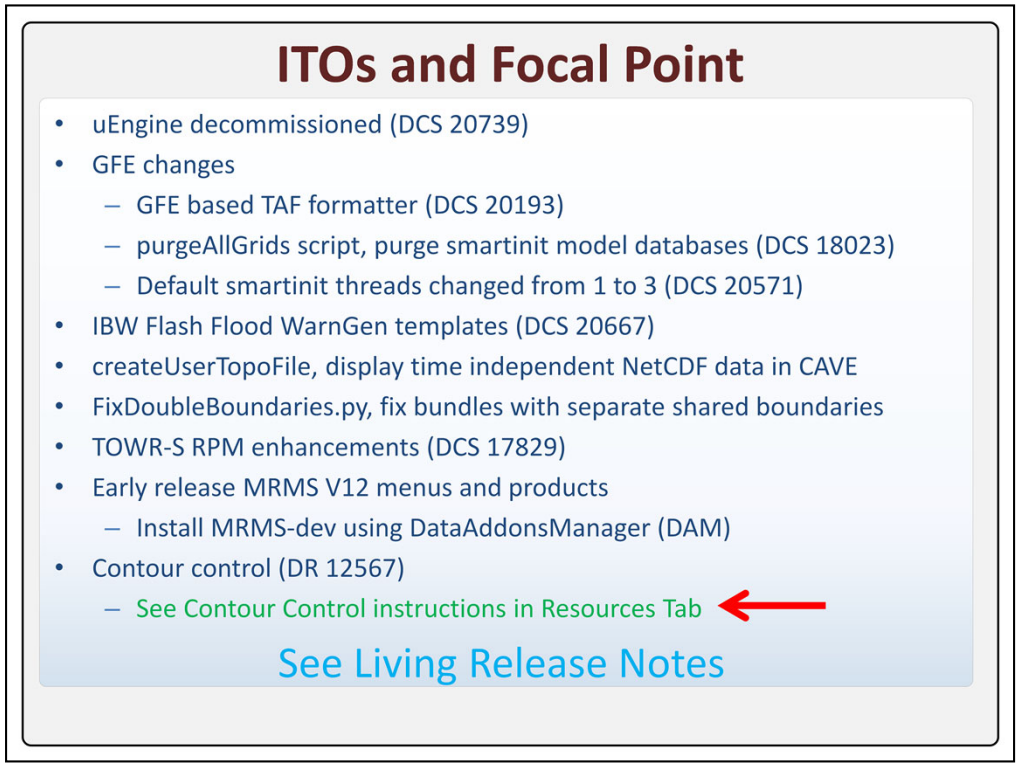
The FFMP Virtual Gauge Basin plot used to be backwards in all time intervals except the All Hour plot. This has been fixed in 19.2.1



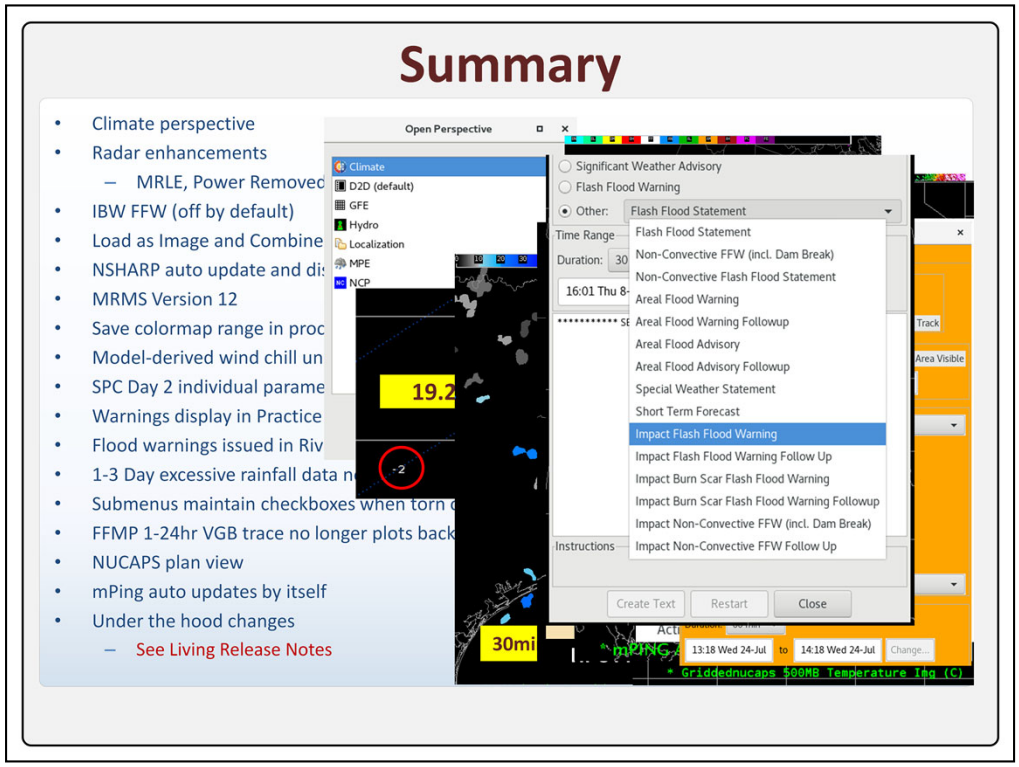
NUCAPS uses a cross infrared sounder on board the Suomi National Polar orbiting Partnership (S-NPP for short) satellite to display vertical profiles. Before 19.2.1, you could only view NUCAPS data in a sounding format. There is now a new plugin in this build that allows NUCAPS data to converted to gridded data and be plotted in plan view.



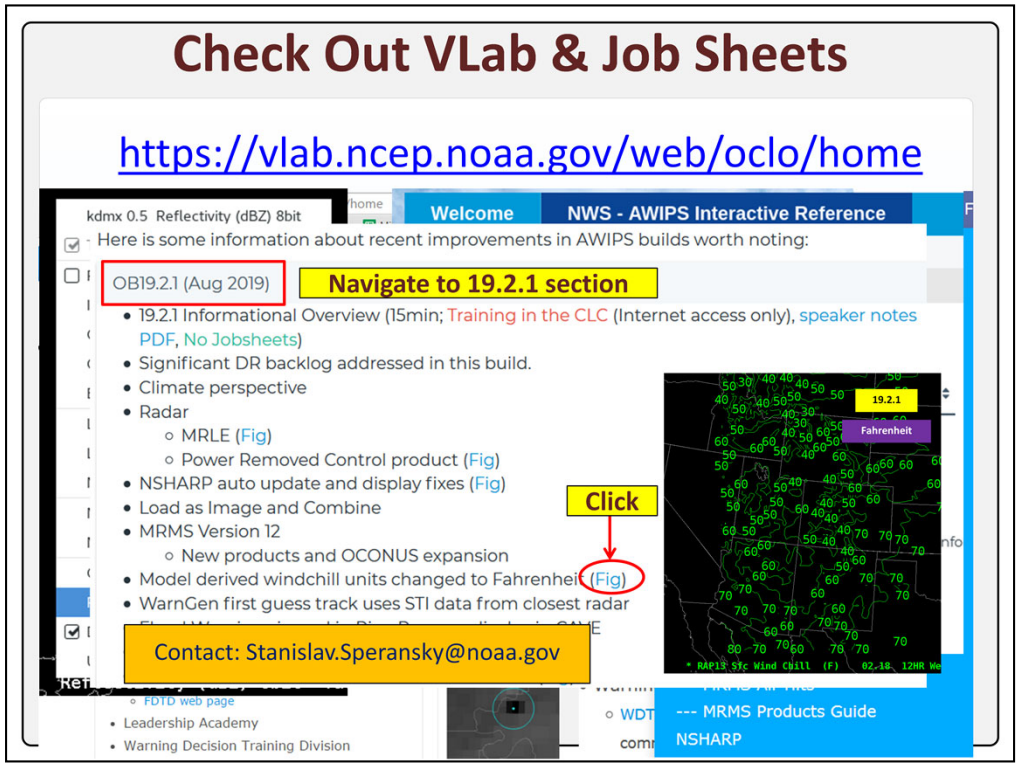
In previous builds, mPing data would not auto-update when loaded alone. It would only auto-update when overlaid with other data. This issue has been fixed in 19.2.1 and now mPing data auto-updates when loaded by itself.



Let's briefly discuss some changes relevant to ITO's and Focal Points in this build. Micro engine has officially been decommissioned in this build. All local application usage should now be handled using the Data Access Framework, or DAF. TAF's can now be generated in GFE. A new purgeAllGrids script will purge any model database created by smartInits. The number of smartinit threads per edex server has been increased from 1 to 3. There are WarnGen template changes for impact based flash flood warnings. You can turn on IBW FFW following the living release notes to add it to your list in WarnGen, but this should only be for testing in practice mode until the announcement for all sites to use. There is a new command line utility named createUserTopoFile to display time independent NetCDF data in CAVE. A new fixDoubleBoundaries delta script fixes bundles with separate shared boundaries. There are some configurations from the TOWR-S rpm's in this build. To get the new products and menus as part of the Experimental MRMS version 12, install the MRMS-dev setup using the DataAddonsManager (or DAM) from the SCP following instructions provided by the regions. You can now lock the contour intervals in CAVE so that the intervals don't change as you zoom in. The focal point can configure this by adding a zoomlock tag in the contourStyleRules. For more information on these, please see the Living Release Notes.



To summarize, the new Climate perspective introduced in build 18.1.1 is now ready to be used operationally in 19.2.1 There have been some Radar enhancements in recent builds. Couple of the bigger items include the addition of MRLE and the Power Removed Control product. IBW flash flood is included in 19.2.1, but it is turned off by default. Your focal point can enable it for practice mode use prior to the authorized use date which will happen sometime after initial deployment. WDTD will be working with AFS on webinars and further training later in 2019. You are now able to combine 2 image plots in the same map editor display using the “Load as Image and Combine” feature. There is a new auto-update feature in NSHARP in addition to a couple display fixes. The next version of MRMS, version 12, will support ingesting the new products and will contain new menus. You can now save the colormap range in procedures. The model derived wind chill parameter unit has now been changed from Kelvin to Fahrenheit. Individual parameters for the SPC Day 2 outlook will be available later this year. Warnings issued using WarnGen now display in practice mode. Flood warnings issued using RivePro now display in CAVE. 1-3 Day Excessive rainfall data now plots without issues. Submenus now maintain checkboxes when those menus are torn off. The FFMP Virtual Gauge Basin plot used to be backwards in all time intervals except the All Hour plot. This has been fixed. There is now a new plugin in this build that allows NUCAPS data to be plotted in plan view. mPing will now auto-update when loaded by itself. Finally, there are number of changes and new tools that impact focal points that are covered in the Living release notes.



You are now done with the AWIPS 19.2.1 Informational Overview.

Just enter this address in a browser on your LX workstation or on the Web and select the AWIPS Build Changes VLab page from the Forecaster References. From there, navigate to the 19.2.1 section. Alternatively, you can right click on a product in the Product Legend in CAVE and select Reference on Product. This will bring up the AWIPS Interactive Reference search page. Type AWIPS Build Changes in the Keywords search then click Update and you should see the Build Changes Page as the top hit. Once you're on the Build changes pages, you can click on the figures to display images relevant to each bulleted item.

Let me know if you have any further questions, and good luck with the new 19.2.1 capabilities.