

# GTAS Release Notes

## Version 062210

### New Features

- 1) WRF-NMM model data for city and regional scales is available for display on the WFO client system. EOC systems have access to this data only when delivered as part of a "Briefing".
- 2) WFO systems can select which model to use when running HySPLIT (GFS, NAM12, or WRF-NMM). EOC system will always use WRF-NMM in this release. We are working on an ensemble approach for forecaster system. In a future release the forecaster will pick the best model for the EOC to use for HySPLIT runs (GFS, NAM12, RUC, WRF-NMM, ..., Ensemble) this model will then become the EOC default instead of the default being hardwired to WRF-NMM.
- 3) WSI national scale radar mosaic is available on the GTAS client systems for display. WFO can select this from the "RADAR" menu. The EOC receives this product as part of their default briefing package.
- 4) Weather icons have been added to the WFO client system. This will allow for creating more simplified graphics for "Briefings" for the EOC.
- 5) 30 minute lightning plot. WFO can select this product for display; the EOC receives this product as part of the default briefing package.

### Bug Fixes

- 1) Product legend has been resized for ease of reading. Previous version used 8 as the font size current version uses 12. In a later version of code the user will select the legend size as part of the setup process.
- 2) Looping has been reconfigured to work like AWIPS. In the previous version of code if the user selected a loop length of 8 and then switched to a smaller loop length "x" the GTAS client would keep the last "x" frames of the loop no matter what product was loaded first. Observed product loops always end with the most current observation. Forecast product loops always end with the last forecast specified by the initially longer loop count, meaning the user doesn't see the observation data that was used to generate the forecast. In this version of GTAS if the first product loaded is a forecast product (HySPLIT or model data) the start of loop is always the 0 hour of the forecast.
- 3) Fixed HySPLIT to scale data display based on Levels Of Concern (LOC) for Acute Exposure Guideline Levels (AEG), Emergency Response Planning Guideline (ERPG), Temporary Emergency Exposure Limits (TEEL). These are based on ALOHA and use the same yellow, orange, and red color zones. See <http://response.restoration.noaa.gov/toxiclocs> and <http://response.restoration.noaa.gov/threatzones> for more information. Also implemented a gray scale which can be used for and unknown chemical.
- 4) Fixed legends on HySPLIT runs to list the chemical and LOC table (AEG, ERPG, or TEEL) being used for the display of the product.

- 5) HySPLIT changed to start calculations from user selected event time not top of the hour. Loop starts with first 15 minute averaging period from user selected start time and ends with last 15 minute period based on the number of hours the user selected for forecasting the plume. In last version HySPLIT would always start at the top of the hour no matter what the user selected causing frames to be missing from the beginning and end of the loop, and the first image not correctly navigated.
- 6) Modified CAP messages to contain GMT offset so that they are version 1.1 compliant.
- 7) Modified CAP interface to allow users to select run and event times. User now can select run and event times up to a day in the past/future.
- 8) WFO clients now have the ability to display limited sounding information. Soundings work for all models except the WRF-NMM city and regional models. In a future release the variables to display soundings will be added to the list of variables being disseminated from GSD for the WRF-NMM model domains. The 24 hour temperature change plot portion of the sounding is still missing and will be fixed in a future release.
- 9) Time series plots can be created for all model data but is limited to only one variable at a time and fixed to point A.
- 10) Time height plots can be created for all model data but is limited to only one variable at a time.
- 11) Cross sections can be displayed for all model data but is limited to only one cross section location at a time. Display must be cleared before loading a new cross section location.
- 12) Fixed problem with display of WRF-NMM data. Legends on AWIPS export not being generated properly; they were always set to 500MBs.
- 13) Fixed problem with WFO client systems not being able to add to and read procedure files. The run-FXCcollaborate argument list set the WFO client to write and read from the FXC server which didn't allow the WFO client to write to the local GTAS client disk. This has been changed so that the client reads locally and stores locally and remotely.
- 14) Fixed problem with the temporary file partition filling to 100%. There were two problems. The first was that the GTAS server never cleared its temporary files when a clear request came from the client which is now fixed. The second problem was that the file system scouring agent was set to clean all files in the temporary partition once an hour which could cause clients to lose display items during a request. The scour agent no longer looks at the temporary partition.
- 15) Fixed problem with log partition filling up on GTAS server. Log files are cycled during restart of server.
- 16) Fixed notification server. Notification server would stop running right after starting up if there were no GTAS servers requesting registration with the notification server. The problem was that the GridKeyServer was not being instantiated properly for this instance.
- 17) Fixed problem with data not being updated on GTAS client systems. Problem was that the cache on the GTAS server wasn't being cleared properly so once client made a request for a product the cache of product times remained the same until the server was restarted. The cache is now properly cleared when the client clears the screen or request and update or reload of the product.
- 18) Fixed problem with contour plots not being able to use progressive disclosure.

- 19) Fixed problem with wrong hi-resolution topology file being created for the US. Topology map creation was hardwired to map sequence. Changed to look at sequence and name of scale instead of being hardwired to sequence only.
- 20) For image combination to work properly a none image product with the same frequency as one of the Images products needs to be loaded first to force time matching. FXC is currently not sending the combo image flag to AWIPS. This will be corrected in the next release. Also found a bug were time matching for single frame image combination doesn't work on the AWIPS side which will also be fixed in the next release of software.
- 21) Display density settings don't work correctly from procedures. The work around for this is for the user to select a display density then reselect loading the bundle.
- 22) Fixed problem with lightning products not being properly exported from AWIPS causing product not loaded messages on FXC.

## Updates

- 1) Added ability to change FXC title bar and splash screen to reflect project and program information.
- 2) Added Salt Lake City and Salt Lake regional scales to western region.
- 3) Added all pressure levels to model product list.
- 4) Added precipitation rate displays from the RUC and NAM models.
- 5) Added snow accumulation rate displays from the NAM model.

## Infrastructure change

- 1) Configured western region primary server at Western Region Headquarters. This should allow for better 24/7 coverage.
- 2) Purchased and configured new operational backup data server for GSD. Found that data server was over utilized causing HySPLIT run times to vary from 30+ seconds to more the 4 minutes depending on system load. Now all runs are done in less than 30 seconds.
- 3) Configured development test data server and GTAS server at GSD. This should allow us to more quickly deploy upgrades to the field, by allowing developers to test in the environment that is being fielded.
- 4) Configured Integration test data server and GTAS server at GSD. This should allow for more quickly deploying and better testing of the software before deployment by allowing full integration of all development efforts In a beta release of the software before being fielded.
- 5) Regional at Southern and Western region are now NFS mounting FX-NET data servers at region. The data servers have recently been moved to new hardware which will allow for the same response times that we are seeing from our operational backup system at GSD.