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Technical Implementation Notice 13-23 Amended
National Weather Service Headquarters Washington DC
658 AM EDT Mon Sep 23 2013

To: Subscribers:
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From: Timothy McClung
 Chief, Science Plans Branch
 Office of Science and Technology

Subject: Amended: Temporary Change to Preemption of HIRESW: Effective
August 13, 2013, Updated September 19, 2013

Amended to temporarily suspend all preemption of the High-Resolution
Window Forecast System (HIRESW) system for the 2013 hurricane season.

With the increased size and power of the Weather and Climate Operational
Supercomputing System (WCOSS), the preemption of the HIRESW runs will be
suspended and NWS will run HIRESW and the hurricane models concurrently.
This change will allow HIRESW to provide heavy precipitation (e.g.,
Colorado floods) and severe weather guidance without affecting the
National Hurricane Center requests for runs of hurricane models. This
change will ensure there will be no breaks in the Hurricane Weather
Research and Forecast System data assimilation cycle that was introduced
this season.

Previously on August 13, 2013, NCEP relaxed the preemption of the HIRES to
only preempt for four or more storms, but effective immediately, no HIRESW
runs will be preempted for the remainder of the 2013 hurricane season.
Below is the text from the original Technical Implementation Notice (TIN).
Preemption is expected to return for the 2014 hurricane season.

Effective on or about Tuesday, August 13, 2013, beginning with the 1200
Coordinated Universal Time (UTC) run, the National Centers for
Environmental Prediction (NCEP) will modify the preemption of the High-
Resolution Window Forecast System (HIRESW).

Due to resource limitations, NWS has had to cancel select HIRESW runs
during hurricane season depending on the number of hurricane models
running during that cycle. Currently, the HIRESW runs are preempted when
there are three or more tropical storms being run.

Because of the increased size and power of the new WCOSS supercomputers,
beginning August 13, the HIRESW runs will not be preempted until four or
more tropical storms are being run. This rule will apply for the
remainder of the 2013 hurricane season only. Once the HIRESW suite is

upgraded late this year or early next year, the preemption limit likely will return to a smaller number of storms. With a subsequent upgrade to either the Hurricane Weather and Research Forecast (HWRF) or the HIRESW, the preemption could begin with just one storm. A new TIN would alert users to such a change.

Long term, the HIRESW functionality will be covered by the High-Resolution Rapid Refresh ENSEMBLE (HRRRE), which will provide 18-24 hour guidance updated hourly, and by the Short-Range Ensemble Forecast (SREF), which will provide longer range ensemble guidance by extending the HRRRE members to 48-60 hours, four times per day. This configuration (roughly 2018) will alleviate the need for any preemption.

For questions regarding these model changes, please contact:

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