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PNSWSH

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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National Technical Implementation Notices are online at:

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