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Technical Implementation Notice 14-25
National Weather Service Headquarters Washington DC
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From: Timothy McClung
 Chief, Science Plans Branch
 Office of Science and Technology

Subject: Upgrade the Real-Time Ocean Forecast System: Effective July 8, 2014

On or about Tuesday, July 8, 2014, beginning with the 1200 Coordinated Universal Time (UTC) run, the gridded binary version 2 (GRIB2) products being disseminated from the National Centers for Environmental Prediction's (NCEP's) Real-Time Ocean Forecast System (RTOFS) will change. This includes the GRIB2 products hosted on the NCEP servers and the GRIB2 RTOFS files distributed on NOAAPort.

Two changes will be made to the GRIB encoding. First, the generating process of 85 for RTOFS was incorrectly set in octet 13 of PDT 4.0. It will now be set in the correct location of octet 1 for all forecast and nowcast products. Second, forecasts and nowcasts had the same value for octet 12 in PDT 4.0--the type of generating process. With this change, the nowcast products will use a value of 14 in octet 12 to distinguish them from the forecast products.

The grid domain has been extended in the Hudson-Baffin sub-region for the nowcasts and forecasts.

The sea surface temperature (SST) will be sent in degrees Kelvin instead of the current degrees Celsius for all sub-regions for the nowcasts and forecasts.

Sample files with these changes are available at:

http://www.nco.ncep.noaa.gov/pmb/codes/rtofs_wmo_headers_regions/

The filenames start with grib2_rtofs_glo*.

The following World Meteorological Organization (WMO) headers are used for the GRIB2 RTOFS products on NOAAPort:

E***01 KWBW, where:

The first * specifies the parameters:

- H - Sea Surface Height Relative to Geoid (SSHG)
- S - Salinity (SALTY)
- T - Water Temperature (T)
- U - U-Component of Current (UOGRD)
- V - V-Component of Current (VOGRD)
- U - Barotropic U Velocity (UBARO)
- V - Barotropic V Velocity (VBARO)

The second * specifies the grid:

- A - Alaska 0.3 km grid
- B - Bering 0.08 km grid
- C - Western contiguous U.S. (CONUS) 0.08 km grid
- D - Arctic 0.08 km grid
- G - Guam 0.08 km grid
- I - Gulf of Alaska 0.5 km grid
- K - Western Atlantic 0.08 km grid
- H - Honolulu 0.08 km grid
- S - Samoa 0.08 km grid
- T - Tropical Pacific 1.0 km grid
- J - Hudson-Baffin 0.25 degree grid

The third * specifies the forecast hours:

B through T, depending on forecast hour

For more information on the RTOFS Global model, please visit:

<http://polar.ncep.noaa.gov/global>

NCEP encourages all users to ensure their decoders are flexible and are able to adequately handle changes in content, parameter fields changing order, changes in the scaling factor component within the Product Definition Section (PDS) of the GRIB files and any volume changes which may be forthcoming. These elements may change with future NCEP model implementations. NCEP will make every attempt to alert users to these changes prior to any implementations.

For questions regarding the scientific content of the modeling system, please contact:

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For questions regarding the dataflow aspects of these data sets, please contact:

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National Technical Implementation Notices are online at:

<https://www.weather.gov/notification/archive>

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