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Service Change Notice 25-47
National Weather Service Headquarters Silver Spring MD
1055 AM EDT Tue Jun 24 2025

To: Subscribers:
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From: David Michaud, Director
 NCEP Central Operations

Subject: Upgrade of the Real-Time Ocean Forecast System (RTOFS)
to Version 2.5: Effective July 24, 2025

Effective on or about Thursday, July 24, 2025 with the 1200 Coordinated Universal Time (UTC) cycle, the National Centers for Environmental Prediction (NCEP) Central Operations (NCO) will upgrade RTOFS to version 2.5. In the event that the implementation date is declared a Critical Weather Day (CWD), an Enhanced Caution Event (ECE), or other significant weather is occurring or is anticipated to occur, implementation of this change will take place at 1200 UTC on the next weekday not declared a CWD and when no significant weather is occurring.

RTOFS consists of Hybrid Coordinate Ocean Model (HYCOM), Community Ice Code (CICE) version 4 and data assimilation (DA) for both sea ice and ocean.

RTOFS version 2.5 introduces the following changes:

1. Add climatological constraints to the assimilation of sea surface height (SSH);
2. Update conversion of DA increments applied to HYCOM;
3. Add assimilation of velocity observations from drifting buoys and high-frequency (HF) radar installations.

The above changes are expected to:

- Reduce subsurface negative salinity bias in the Caribbean Sea
- Preserve HYCOM layer structure
- Provide additional observational constraints for DA

No product changes are introduced by this upgrade.
Current model data is available here:

<https://nomads.ncep.noaa.gov/pub/data/nccf/com/rtofs/prod/>
<ftp://ftp.ncep.noaa.gov/data/nccf/com/rtofs/prod/>

Parallel data will be available on the NCEP sites at the following URLs:

<https://nomads.ncep.noaa.gov/pub/data/nccf/com/rtofs/para/>
<ftp://ftp.ncep.noaa.gov/data/nccf/com/rtofs/para/>

NCEP encourages users to ensure their decoders are flexible and are able to adequately handle changes in content order, changes in the scaling factor component within the product definition section (PDS) of the Gridded Binary (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.

Please submit comments, questions, or requests pertaining to this upgrade to:

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For questions about the dataflow aspects, please contact:

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National Service Change Notices are online at:

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

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