

Release Notes

Model	Real-Time Ocean Forecast System – Global (RTOFS-Global)
Version	1.1.2
Implementation date/time	October 17, 2017 0000 UTC
Purpose	The system provides daily a two-day nowcast and eight-day forecast for the global ocean.
Changes being made for this release	<ul style="list-style-type: none"> - An upgrade of HYCOM code to version 2.2.86F2p0i. - An increase in the number of vertical layers from 32 to 41 hybrid layers with additional iso-level coordinate layers in the upper ~200m. - The coupling of the ocean component Hybrid Coordinate Ocean Model (HYCOM) to Los Alamos National Laboratory’s Community Sea Ice (CICE) model using v4.0 of Earth System Modeling Framework (ESMF). - Updated bathymetry, which improves representation of grid points in shallow regions where minimum depth is set to 5m. - An update of the climatology from the U.S. Navy's Generalized Digital Environmental Model (GDEM) v3.0 to v4.2. - An equation of state, which is updated from 9 terms to 17 terms.
Developed by	National Weather Service (NWS) / Environmental Modeling Center (EMC)
Runs on	NWS Weather and Climate Operational Supercomputing System (WCOSS)
Community software	<ul style="list-style-type: none"> - Hybrid Ocean Model (HYCOM)+ v2.2.86F2p0i. - Community Sea Ice (CICE) v3.1 - Earth System Modeling Framework (ESMF) v4.0 - Climate Data Operators (CDO) v1.5.0
Input	<ul style="list-style-type: none"> - NAVOCEANO HYCOM restart files. - NCEP's GFS/GDAS ocean surface forcing files.
Output and where to find it	<p>RTOFS-Global output consists of hourly 2D ocean surface archives and six-hourly 3D archives, as well as high vertical resolution regional 3Z archives.</p> <p>The output data in native system format, NetCDF and GRIB2 formats is available via</p> <ul style="list-style-type: none"> - NCO Production FTP server ftp://ftpprd.ncep.noaa.gov/pub/data/nccf/com/rtofs/prod/ - NCO operational NOMADS http://nomads.ncep.noaa.gov/pub/data/nccf/com/rtofs/prod/ <p>Users can find additional information about RTOFS-Global data access and data formats at http://polar.ncep.noaa.gov/global/data_access.shtml?</p>
Primary users	<ul style="list-style-type: none"> - NWS Weather Forecast Offices (WFO) - NCEP Ocean Prediction Center (OPC) - NCEP National Hurricane center (NHC) - NCEP Environmental Modeling Center (EMC) - US Coastal Guard. - NOAA National Ocean Service (NOS)

In the future	<ul style="list-style-type: none">- Designing additional sea-ice products/forecasts (ice thickness, ice drifts) (FY18)- Updating HYCOM src codes, fix files to synch with US Navy (FY18)- NCODA at NCEP (FY19)
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For more information on this model, please contact ncep.pmb.dataflow@noaa.gov.