

NOUS41 KWBC 081950
PNSWSH

Public Information Statement 20-41
National Weather Service Headquarters Silver Spring MD
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To: Subscribers:
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 - Emergency Managers Weather Information Network
 - NOAAPort
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From: Jason Levit
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Subject: Soliciting Public Comments on changing the product suite from
the proposed upgrade of the Real Time Ocean Forecast System (RTOFS)
Global Model through July 8, 2020

The National Centers for Environmental Prediction (NCEP) is soliciting
comments on removing, adding and changing certain products from the Real-
Time Ocean Forecast System (RTOFS) on or after November 11, 2020.

The following products will be removed from NCEP Web Services, including
NOMADS grib filter, OpenDap, and ftpprd.

For Nowcast:

-rtofs_glo.t00z.n-NN.archs.a
-rtofs_glo.t00z.n-NN.archs.b

These files contain Global Surface binary data for HYbrid Coordinate
Ocean Model (HYCOM) at 1 hourly intervals (Nowcast Hours: NN: 25-48, 1
hour increments).

Fields available in these files are

Montgomery Potential (montgl), Sea Surface Height (srfhgt), Steric height
(steric), Thermal Energy Flux (surflx), Salinity Flux (salflx), Boundary
Layer Depth (bl_depth), Mixlayer Depth (mix_depth), Ice Coverage
(covice), Ice Thickness (thkice), Ice Temperature (icetem), U Barotropic
Velocity (u_btrop), V Barotropic Velocity (v_btrop), U Velocity (u_vel),
V Velocity (v_vel), Layer Thickness (thkness), Temperature (temp) and
Salinity (salin)

-rtofs_glo.t00z.n-NN.archv.a
-rtofs_glo.t00z.n-NN.archv.b

These files contain Global Volume binary data for HYbrid Coordinate Ocean
Model (HYCOM) at 6 hourly intervals (Nowcast hours: NN: 25-48, 6 hour
increments) at 41 hybrid levels.

Fields available in these files are

Montgomery Potential (montgl), Sea Surface Height (srfhgt), Steric height
(steric), Thermal Energy Flux (surflx), Salinity Flux (salflx), Boundary
Layer Depth (bl_depth), Mix layer Depth (mix_depth), Ice Coverage

(covice), Ice Thickness (thkice), Ice Temperature (icetem), U Barotropic Velocity (u_btrop), V Barotropic Velocity (v_btrop), U Velocity (u_vel), V Velocity (v_vel), Layer Thickness (thkness), Temperature (temp) and Salinity (salin)

Nowcast in the new upgrade is run for 1 day (n-24 to n00) and hence the above files are removed. For n-48 to n-24, users can use the previous day nowcast files from n-24 to n00.

-rtofs_glo_2ds_nNNN_3hrly_[diag/prog].nc

These files contain Global Surface data in netCDF format in 3 hourly intervals (Nowcast hours: NNN: 000 to 048 in 3 hour increments)

-rtofs_glo_2ds_nNNN_daily_[diag/prog].nc

These files contain Global Surface data in netCDF format in daily/24hr intervals (Nowcast hours: NNN:000 to 048 in 24 hr increments)

Fields available in rtofs_glo_2ds_nNNN_[3hrly/daily]_diag.nc are:

Ice Coverage, Ice_thickness, U Barotropic Velocity, V Barotropic Velocity, Sea Surface Height (SSH), Surface Boundary Layer Thickness and Mixed Layer Thickness.

Fields available in rtofs_glo_2ds_nNNN_[3hrly/daily]_prog.nc are:

U Velocity, V Velocity, Sea Surface Temperature (SST), Sea Surface Salinity (SSS) and Layer Density

The reason for removing the above nowcast files (*prog* and *diag*) is that they are redundant. In current production *1hrly* files get copied to *3hrly* and *daily* files. So we have 3 copies of the same file which causes redundancy. Hence we plan to have one copy of the files with *hrly* and *daily* removed from the filenames (more on that below).

-rtofs_glo_3dz_nNNN_6hrly_hvr_REGION.nc

These files contain Regional Volume data in netCDF format in 6 hourly intervals [Nowcast hours: NNN: 030,036,042 048] Regions available are

REGION US East, US West and Alaska [REGION: US_east, US_west alaska]

Fields available in these files are:

U Velocity (u), V Velocity (v), Temperature and Salinity

-rtofs_glo.t00z.n048_REGION_std.grb2

This file contains Regional Surface data in GRIB2 format

(REGION: alaska, arctic, bering, guam, gulf_alaska, honolulu,

hudson_baffin,samoa,trop_paci_lowres,west_atl,west_conus)

Fields available in this file are:

Temperature (wtmp), Salinity (salty), U Velocity (UOGRD), V Velocity (VOGRD), U Barotropic Velocity (UBARO), V Barotropic Velocity (VBARO), Sea Surface Height (SSHG)

Nowcast in the new upgrade is run for 1 day (n-24 to n00) and hence the above files are removed. For n-48 to n-24, users can use the previous day nowcast files from n-24 to n00.

For Forecast:

-rtofs_glo_2ds_fNNN_3hrly_[diag/prog].nc

These files contain Global Surface data in netCDF format in 3 hourly intervals (Forecast Hours: NNN: 000 to 072; 3 hourly intervals)

-rtofs_glo_2ds_fNNN_daily_[diag/prog].nc

These files contain Global Surface data in netCDF format in daily/24hr intervals (Forecast Hours: NNN:000 to 192 in 24 hr increments)

Fields available in rtofs_glo_2ds_fNNN_[3hrly/daily]_diag.nc are:

Ice Coverage , Ice_thickness , U Barotropic Velocity, V Barotropic Velocity, Sea Surface Height (SSH), Surface Boundary Layer Thickness and Mixed Layer Thickness.

Fields available in rtofs_glo_2ds_fNNN_[3hrly/daily]_prog.nc are:

U Velocity, V Velocity, Sea Surface Temperature (SST), Sea Surface Salinity (SSS) and Layer Density

The reason for removing the above forecast files (*prog* *diag*) is that they are redundant. In the current production *1hrly* files get copied to *3hrly* and *daily* files. So we have 3 copies of the same file which causes redundancy. Hence we plan to have one copy of the files with *hrly* *daily* removed from the filenames (more on that below)

The following products will be changed on the web services:

rtofs_glo_[2ds]_[f/n]NNN_1hrly_[diag].nc

These files contain Global Surface data in netCDF format in 1 hourly intervals for both nowcast and forecast [f/n]

(Nowcast Hours: NNN: 000 to 024 and Forecast Hours: NNN : 000 to 192)

Ice coverage and Ice thickness will be removed from the "diag" files and added on to Global Surface ice data files in netCDF format in 1 hourly intervals for both nowcast and forecast. This *ice* is a new file that will be provided with this upgrade rtofs_glo_[2ds]_[f/n]NNN_1hrly_ice.nc files

Comments: Fields in *diag* files for both Nowcast and Forecast will have:

U Barotropic Velocity, V Barotropic Velocity, Sea Surface Height (SSH), Surface Boundary Layer Thickness and Mixed Layer Thickness

Changing file names:

Also all the Global Surface 1hrly files

rtofs_glo_[2ds]_[f/n]NNN_1hrly_[diag/prog/ice].nc will be renamed as:

rtofs_glo_[2ds]_[f/n]NNN_[diag/prog/ice].nc

Where

f/n: forecast/nowcast

Nowcast hours: NNN: 000 to 024 for nowcast

Forecast Hours: NNN: 000 to 192 for forecast

Further all nc files will be converted to NetCDF4 with compression.

WMO GRIB data to be removed from the SBN/NOAAPORT:

48hr nowcast output for the following regions will be removed:

alaska, arctic, bering, guam, gulf_alaska, honolulu,

hudson_baffin,samoa,trop_paci_lowres,west_atl,west_conus

Please see the list of headers here:

https://www.nco.ncep.noaa.gov/pmb/changes/RTOFS_48hr_nowcast_headers.txt

If these product changes are approved, a Service Change Notice will be issued giving 30 days of notice of the termination date.

Please send comments on this proposal to:

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For questions on the data flow aspects, please contact:

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National Public Information Statements are online at:
<https://www.weather.gov/notification/>

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