NCEP Products Available to Distribute to CONDUIT
Phase 1
12/23/2010

High-Resolution Window Forecast System (HIRESW)  Full Description  Product Location
(hiresw directory)

Note: These products should be added to NOAAPORT in 2011.

The HIRESW consists of daily runs of the WRF versions of the non-hydrostatic, hybrid vertical coordinate mesoscale model (NMM) and the NCAR Advanced Research WRF (ARW) at ~5 km resolution. Currently, five nested domains are being run, three large domains (East/Central U.S., West/Central U.S., Alaska) and two small domains (Hawaii and Puerto Rico), each domain run with the ARW and NMM core.

Available grids:

Alaska ARW (NCAR Advanced Research WRF)
Alaska NMM (Non-hydrostatic, hybrid vertical coordinate mesoscale model)
East/Central US ARW (NCAR Advanced Research WRF)
East/Central US NMM (Non-hydrostatic, hybrid vertical coordinate mesoscale model)
Hawaii ARW (NCAR Advanced Research WRF)
Hawaii NMM (Non-hydrostatic, hybrid vertical coordinate mesoscale model)
Puerto Rico ARW (NCAR Advanced Research WRF)
Puerto Rico NMM (Non-hydrostatic, hybrid vertical coordinate mesoscale model)
West/Central US ARW (NCAR Advanced Research WRF)
West/Central US NMM (Non-hydrostatic, hybrid vertical coordinate mesoscale model)

Real Time Ocean Forecast System (RTOFS)  Full Description  Product Location

The RTOFS for the North Atlantic is an ocean forecast system based on the HYbrid Coordinate Ocean Model (HYCOM). HYCOM is a data-assimilative hybrid isopycnal-sigma-pressure (generalized) coordinate ocean model. The RTOFS-Atlantic is an operational real time ocean nowcast/forecast system for the North Atlantic running once daily at National Centers for Environmental Prediction (NCEP).

Available grids:

Daily full-basin volumetric fields, native horizontal coordinates, fixed-depth vertical coordinates
Daily volumetric fields, native horizontal coordinates, hybrid vertical coordinates
Hourly full basin surface fields, native horizontal coordinates, fixed depth vertical coordinates
Hourly surface fields, native horizontal coordinates, hybrid vertical coordinates
Daily surface fields, rectangular lat/lon horizontal coordinates
Daily Latitude-Longitude Ocean, 2 degrees of longitude and 1 degree of latitude resolution

**GFDL Hurricane model**

**Full Description**

The current GFDL hurricane model is a gridpoint model that consists of three computational meshes which are nested together with increasingly finer grid-point spacing in each mesh. The model is run on demand up to 4x daily.

Available grids:

- latitude-longitude 1.0 degree resolution full domain
- latitude-longitude 1/6 degree resolution nest
- latitude-longitude 1/12 degree resolution nest

**Product Location** (hur subdirectory)

**Hurricane Weather Research and Forecast (HWRF) system**

**Full Description**

The HWRF is a high resolution coupled air-sea-land prediction model with a movable nested grid and advanced physics for high resolution. It is run on demand up to 4x daily.

Available grids:

- latitude-longitude 27 km resolution full domain
- latitude-longitude 9 km resolution nest

**Product Location** (hwrf subdirectory)

**Real-Time Mesoscale Analysis**

**Full Description**

The Real-Time Mesoscale Analysis (RTMA) is a NOAA/NCEP high-spatial and temporal resolution analysis/assimilation system for near-surface weather conditions. Its main component is the NCEP/EMC Gridpoint Statistical Interpolation (GSI) system applied in two-dimensional variational mode to assimilate conventional and satellite-derived observations.

**Product Location**
Available grids:

Note: All RTMA domains except for Alaska are available on NOAAPORT and are therefore already in the IDD.

Alaska Polar Stereographic, 3 km resolution, analysis products

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<th>NOAA WAVEWATCH III</th>
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The NOAA WAVEWATCH III® operational wave model suite consists of a set of five wave models plus a global ensemble, based on version 2.22 of WAVEWATCH III®. All models are run on the 00z, 06z, 12z and 18z model cycles, and start with a 6h hindcast to assure continuity of swell. All models provides 126 hour forecasts.

The models are:

- The global NWW3 model
- The global NWW3 ensemble
- The regional Alaskan Waters (AKW) model
- The regional Western North Atlantic (WNA) model
- The regional North Atlantic Hurricane (NAH) model
- The regional Eastern North Pacific (ENP) model
- The regional North Pacific Hurricane (NPH) model

Available grids:

- Regional - Alaska, longitude-latitude grid
- Regional - Eastern North Pacific, longitude-latitude grid
- Regional - Great Lakes, longitude-latitude grid
- Global - longitude-latitude grid, 1.250 x 1.000 degree resolution
- Regional - Western North Atlantic, longitude-latitude grid
- Regional - North Atlantic Hurricane, longitude-latitude grid, 0.25 degree resolution, Multi-grid Hurricane Wave
- Regional - North Pacific Hurricane, longitude-latitude grid, 0.25 degree resolution, Multi-grid Hurricane Wave
- Regional – Alaska, longitude-latitude grid, 0.25 x 0.167 degree resolution, Multi-grid Hurricane Wave
- Regional – Alaska, longitude-latitude grid, 0.133 x 0.067 degree resolution, Multi-grid Hurricane Wave
- Regional - US East Coast, longitude-latitude grid, 0.067 degree resolution, Multi-grid Hurricane Wave
- Regional - US East Coast, longitude-latitude grid, 0.167 degree resolution, Multi-grid Hurricane Wave
- Regional - US East Coast, longitude-latitude grid, 0.25 degree resolution, Multi-grid Hurricane Wave
Regional - E. Pacific, longitude-latitude grid, 0.167 degree resolution, Multi-grid Hurricane Wave
Regional - North Pacific, longitude-latitude grid, 0.25 degree resolution, Multi-grid Hurricane Wave
Regional - US West Coast, longitude-latitude grid, 0.167 degree resolution, Multi-grid Hurricane Wave
Regional - US West Coast, longitude-latitude grid, 0.067 degree resolution, Multi-grid Hurricane Wave
Regional – Alaska, longitude-latitude grid, 0.25 x 0.167 degree resolution, Global Multi-Grid Wave
Regional – Alaska, longitude-latitude grid, 0.133 x 0.067 degree resolution, Global Multi-Grid Wave
Regional - US East Coast, longitude-latitude grid, 0.167 degree resolution, Global Multi-Grid Wave
Regional - US East Coast, longitude-latitude grid, 0.067 degree resolution, Global Multi-Grid Wave
Regional - E. Pacific, longitude-latitude grid, 0.167 degree resolution, Global Multi-Grid Wave
Regional - US West Coast, longitude-latitude grid, 0.167 degree resolution, Global Multi-Grid Wave
Regional - US West Coast, longitude-latitude grid, 0.067 degree resolution, Global Multi-Grid Wave
Global – longitude-latitude, 1.0 degree resolution, Wave Ensemble Control and Members
Global – longitude-latitude, 1.0 degree resolution, Wave Ensemble Products (mean, probability, spread)

Assimilation data – NAM, GFS  Product Information

Available products:

**NAM  Product Location**

POES/NESDIS and METOP AMSU-A 1b radiances
POES/NESDIS AMSU-B 1b radiances
Surface land synoptic, station pressure, specific humidity
Upper-air (raob, pibal, recco, drops) reports
MDCRS ACARS aircraft reports
AIREP/PIREP, AMDAR (ASDAR/ACARS), E-ADAS (AMDAR BUFR) aircraft reports
Wind profiler reports
Satellite-derived wind reports
Surface marine (ship, buoy, c-man platform) reports

**GFS  Product Location**

POES/NESDIS and METOP AMSU-A 1b radiances
POES/NESDIS AMSU-B 1b radiances
POES/NESDIS HIRS-3 1b radiances
POES/NESDIS and METOP HIRS-4 1b processed radiances
POES/NESDIS and METOP MHS 1b processed radiances
Upper-air (raob, pibal, recco, drops) reports

**AQUA-AIRS AIRS/AMSU-A/HSB 1B processed radiances**

AQUA/AMSR-E processed radiances
GOES NESDIS-processed 11x17 field-of-view imager clear radiances
GOES/NESDIS-processed 1x1 field-of-view soundings/brightness temperatures
GPS integrated precipitable water
COSMIC, CHAMP, GRACE, METOP(GRAS) and SAC-C GPS radio occultation data
METOP-2 IASI 1C radiance data (variable channels)
POES/NESDIS Solar Backscatter UV-2 radiances, version 8
Wind profiler reports
Radio Acoustic Sounding System Virtual Temperature
Satellite-derived wind reports
Mean sea-level pressure bogus
Surface marine (ship, buoy, c-man platform) reports
NASA/Tropical Rainfall Measuring Mission superobed data (on a 1 degree lat/lon grid)
NASA/Tropical Rainfall Measuring Mission
Vertical Azimuth Display winds by height at U.S. NEXRAD radar sites
WindSat products from NAVY