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From: Tim McClung
 Chief, NWS Science Plans Branch
 Office of Science and Technology

Subject: High Frequency Radar (HFR) Total Vector Velocity (TVV) or Surface Current Data will be Provided over the Satellite Broadcast Network (SBN) and NOAAPort: Effective February 25, 2014

Effective on or around Tuesday, February 25, 2014, HFR TVV data will be added to the SBN and NOAAPort. The data are distributed by the National Data Buoy Center (NDBC). The hourly grids will be disseminated in gridded binary version two (GRIB2) format. Depending on the HFR site, TVV data are available at grid resolutions of 500m, 1km, 2km, and 6km.

6km resolution HFR TVV data consist of two GRIB2 formatted messages that cover all areas: one for the Pacific Coast (WEST_6KM) and one for the Atlantic Coast (EAST_6KM).

2km resolution HFR TVV data consist of seven GRIB2 formatted messages that cover the following: US_EAST_NORTH_2KM, US_EAST_SOUTH_2KM, US_EAST_FLORIDA_2KM, US_HAWAII_2KM, US_WEST_NORTH_2KM, US_WEST_CENCAL_2KM, and US_WEST_SOCAL_2KM.

1km resolution HFR TVV data consist of seven GRIB2 formatted messages that cover the following: US_EAST_DELAWARE_1KM, US_EAST_VIRGINIA_1KM, US_HAWAII_1KM, US_WEST_WASHINGTON_1KM, US_WEST_SANFRAN_1KM, US_WEST_LOSOSOS_1KM, and US_WEST_LOSANGELES_1KM.

500m resolution HFR TVV data consist of one GRIB2 formatted message that covers US_WEST_500M.

The parameters associated with the messages at these resolutions are:

UOGRD U-Component of Current [m/s]: at the surface
VOGRD V-Component of Current [m/s]: at the surface

Additional files for Alaska, Puerto Rico/Virgin Islands, and the Gulf Coast will be included, when those sites are active.

Data volume will vary, depending on the HFR site. The sizes of the 6km resolution GRIB2 messages are 60 KB for the Coastal Pacific (WEST_6KM) and 140 KB for the Coastal Atlantic (EAST_6KM). The total volume for 6km resolution files is 200 KB per cycle and therefore, approximately 5 MB per day.

The sizes of the 2km resolution GRIB2 messages are 130 KB for US_EAST_NORTH, 160 KB for US_EAST_SOUTH, 100 KB for US_EAST_FLORIDA, 80 KB for US_HAWAII, 65 KB for US_WEST_NORTH, 50 KB for US_WEST_CENCAL, and 100 KB for US_WEST_SOCAL. The total volume for 2km resolution files is 685 KB per cycle and therefore, approximately 17 MB per day.

The sizes of the 1km resolution GRIB2 messages are 240 KB for US_EAST_DELAWARE, 125 KB for US_EAST_VIRGINIA, 305 KB for US_HAWAII, 80 KB for US_WEST_WASHINGTON, 65 KB for US_WEST_SANFRAN, 65 KB for US_WEST_LOSOSOS, and 120 KB for US_WEST_LOSANGELES. The total volume for 1km resolution files is 1 MB per cycle and therefore, approximately 24 MB per day.

The sizes of the 500m resolution GRIB2 messages are 10 KB for US_WEST. The total volume for 500m resolution files is 10 KB per cycle and therefore approximately 0.25 MB per day. The total volume for all resolution files is 2 MB per cycle and therefore, 48 MB per day.

The World Meteorological Organization (WMO) Header for these products is OUTA98 KWNB.

The NDBC's HFR website is located at:

<http://hfradar.ndbc.noaa.gov/>

For additional information regarding GRIB2 files, visit:

<http://www.nco.ncep.noaa.gov/pmb/docs/grib2/>

For questions pertaining to HFR TVV data, please contact:

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National Technical Implementation Notices are online at:

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

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