

NOUS41 KWBC 051615  
PNSWSH

Technical Implementation Notice 13-46  
National Weather Service Headquarters Washington DC  
1115 AM EST Thu Dec 05 2013

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From: Tim McClung  
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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 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 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 Notice are online at:

<http://www.weather.gov/os/notif.htm>

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