HFRADAR Activities @ ODU

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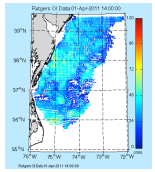
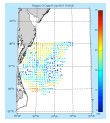
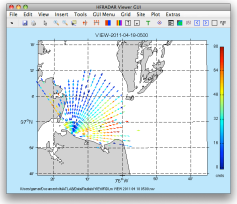
MATLAB Graphical User Interfaces

Display Data





Data plotted by accessing Rutgers Thredds server data online

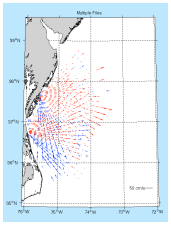


Other Options

- Apply masks to total vector maps.
- Define zoom area for close inspections.
- Define a set of plots to browse.
- Plot a range ring.

Visualization Options

- Arrow style and scale
- Option to plot fewer vectors
- Different colors and color schemes
- Ability to overlay plots
- Allows for several grids/map views

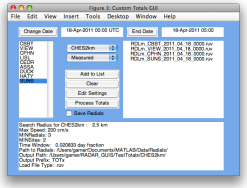


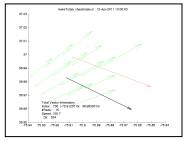
Multiple radial files plotted with color coding (current towards/away from antenna) to check for consistency between sites.

Compute Totals

Uses the least squares method HFR Progs routine for computing totals.

Define a time period.
Select a grid.
Create a list of radial files.
Choose your settings.
Process the totals.

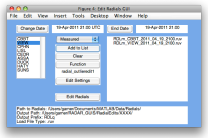


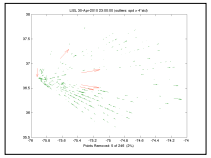


See which vectors contributed to a total.

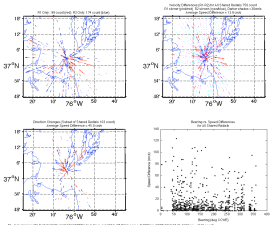
Edit and Compare Radials

Edit a single file by manually clicking on vectors to remove
OR
Edit several files using a selected function (i.e. a script to remove outliers)





Result of using a script to remove outliers. Radials that were removed shown in red.

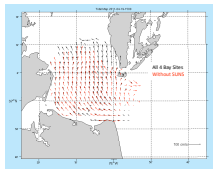


Compare two radial files. Example above compares CBBT radials processed with a smoothed and unsmoothed pattern.

Site Updates Since ROWG4

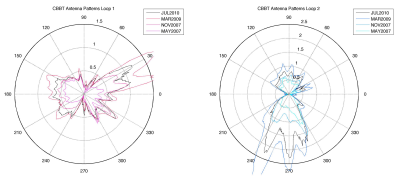
SUNS Site Installed

NOAA provided the RADAR equipment and trailer for this site located at the Sunset Beach Resort on the Eastern Shore of Virginia. It has been operational since August 11 2010.



Example of a total map with and without the SUNS site.

New Patterns at CBBT and CEDR

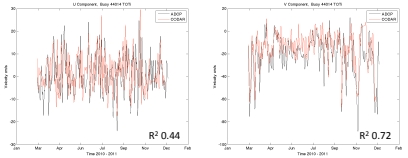


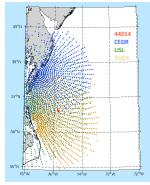
Four different pattern measurements at CBBT.

CEDR antenna pattern measured on March 17 2011. Plotted on Google Earth with use of CODAR's PATTtoKML tool.

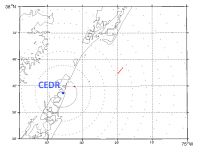
New Data Comparisons

NDBC Buoy 44014

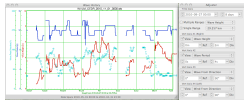




Future Work: CEDR Wave Data Comparison



Johns Hopkins University Applied Physics Lab TRIAXYS™ Mini Directional Wave Buoy deployment locations are shown in red.



Sample of wave data collected at CEDR RADAR site during one of the buoy deployments.

Project website: http://www.ccpo.odu.edu/currentmapping
Center for Coastal Physical Oceanography
Old Dominion University, Norfolk, VA 23529

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MACOORA Mid-Atlantic Coastal Ocean Observing Regional Association

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