C-Nav

C-Tides®

Worldwide ocean tidal data from GNSS measurements

Since the early days of GNSS, it has been the dream of hydrographers to exploit the height ordinate to derive real-time tide information.

C-Tides[®] combines the exceptional real-time accuracy of Precise Point Positioning (PPP) corrected C-Nav3050[®] height measurements with the latest in global MSS and MSL models. This produces real-time tidal data of exceptional accuracy when out of range of traditional shore based tide gauges.



FEATURES

Choice of geoidal or satellite altimetry models

Real-time filtering or measurement of pitch and roll

Includes predicted world tides

OCEANEERING

Connecting What's Needed with What's Next™

C-Tides[®]

IHO Standards for Hydrographic Surveys

C-Tides® results are within bounds for combining with other vertical component uncertainties to achieve IHO SP44 Order 1 or better.

File Settings View Help Area of Interest COG Offsets Starboard To GPS: 15.5 -93 -92 Forward To GPS: 15.5 -93 -92 Output Data Output Data Output Data Output Data	🔺 C-Tides Online			💽 C-Tides Offline		
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Start Stop						

C-Tides[®] Online (Real-Time) Features

- » Uses C-Nav3050® binary message stream
- » Unique, real-time alpha-beta elevation filter
- » Outlier Rejection
- » Antenna offsets and draft inputs
- » Prediction tide overlays
- » Choice of models
 - » EGM2008
 - » Mean Sea Surface (MSS)
- » Aided (pitch, roll, heave [TSS1]) or unaided

Online Plots

- » Raw height data series
- » Filtered height data series
- » Predicted height data series

Real-Time Logging and Serial Output

- » Immediate data output (no waiting for Doodson X0 filter)
- » Data logged and output in ASCII format
- » All raw and filtered data included
- » MSS/MSL value from selected model
- » Time and position

C-Tides® Offline (Post-Processing) Features

- » Uses output from C-Tides[®] Online or C-Nav3050[®] logged binary data
- » Boxcar smoothing or alpha-beta filtering
- » Doodson X0 processing
- » Harmonic analysis (14 primary tidal constituents)
- » Manual draft adjustments
- » Plotted and logged data results
- » Comparison of:
 - » Raw, filtered, or smoothed data
 - » Predicted tides
 - » Harmonic generated tides
 - » Doodson XO sea surface

For more information: **oceaneering.com/cnav**

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