

GROW: Global Reanalysis of Ocean Waves



A Global Wind and Wave Database

- 40+ Years of a Calibrated Global Hindcast
- More Accurate than Ship Report Based Products
- Better Representation of Long Term Climate Than Altimeter Measurements

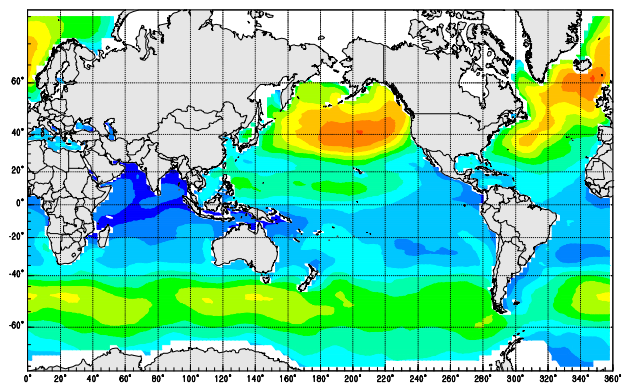
Description

GROW is a long-term global database consisting of hindcast ocean wave time series and statistical products. The GROW database was generated using Oceanweather's proven ODGP-2 spectral wave model and validated against worldwide buoy and altimeter measurements. Output from GROW includes wind and wave parameters (including sea and swell splits) every 3 hours on a global $.625^\circ$ by 1.25° degree grid spacing, and wave spectra (23 frequency bands by 24 directions) on a global 10° by 10° degree grid.

GROW products are provided in convenient point sort for direct application to site-specific wind and wave design problems including assessment of operability and extreme loads. Summary tables of return period extremes, frequency-of-occurrence, and persistence/duration tables can be generated for any GROW location. Wave spectra generated by GROW can also be used to drive higher resolution ocean response models for coastal or smaller scale meteorological applications (such as tropical cyclones).

Standard Products

- Time series of wind and wave parameters provided in ASCII or OSMOSIS format
- Operability data expressed as frequency-of-occurrence tables of winds and waves with persistence/duration statistics
- Return period extremes for wind speed, wave height (significant, maximum and crest), and wave period
- Directional wave spectra



Mean Significant Wave Height for January 1958

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