

Welcome to the summer 2016 Edition of WaveForce News! It has been a busy year at WaveForce with new products, smart partnerships, and diverse industry projects. Read about the highlights below and learn more at www.waveforcetechnologies.com.

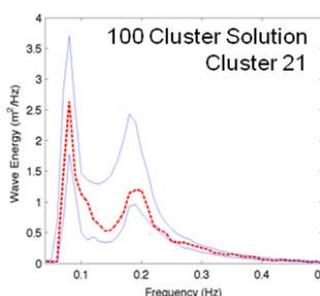
El Niño and the Mid-Atlantic Wave Climate

WaveForce conducted an analysis of a 35-year wave observation data set for the US Army Research and Development Center (ERDC) Field Research Facility (FRF) in Duck, North Carolina. An Artificial Neural Net (ANN) approach was used to transform directional wave spectra from various depths to a single station at 18m depth. The resulting long-term record shows that El Niño Southern Oscillation (ENSO) has a profound effect on the mid-Atlantic coastal wave climate. Results were presented at the [14th International Workshop](#) on Wave Hindcasting and Forecasting held in November 2015. [Check out the full paper.](#)



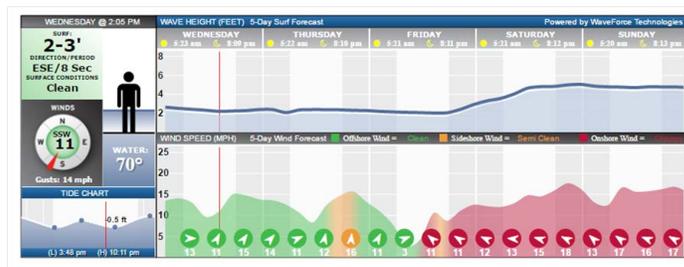
Wave Clustering for Efficient Structural Analysis

In a project awarded by Shell Global Solutions, WaveForce has collaborated on the development of a new method for clustering directional wave spectra for efficient structural response analyses. Based on two years of wave measurements off Brazil, the results show that a complex wave climate can be adequately represented by only 100 distinct sea states. Results were presented at Offshore Technology Conference 2016, paper [OTC-27039-MS](#).



Surf's up!

WaveForce is thrilled to announce a new [custom surf forecast model](#) for Virginia and North Carolina. Predicting hourly wave heights along the coast right where the action is - in the surf zone. Forecast developed in collaboration with Right Coast Surf, AcuSea and RPS.



New Partnership Supports Development of Offshore Wind Power

WaveForce and RPS have partnered with the [National Weather Service](#) on a project awarded by Virginia Tech for the Commonwealth of Virginia Department of Mines, Minerals and Energy (DMME). We will develop an online environmental data server and forecast model validation tools for use by the offshore community. Results will be available in a fully-interactive map-based data portal with the goal of providing real-time and historical coastal marine data and model validation products for use in offshore wind facility development, construction and operation. Stay tuned for more information!

WaveForce Partners with RPS

A partnership between WaveForce and [RPS](#) is a win-win for both companies, as WaveForce benefits from RPS expertise in oceanographic software, and RPS benefits by adding WaveForce ocean wave analyses to a growing suite of metocean products and services.



A partnership between WaveForce and [RPS](#) is a win-win for both companies, as WaveForce benefits from RPS expertise in oceanographic software, and RPS benefits by adding WaveForce ocean wave analyses to a growing suite of metocean products and services.

