

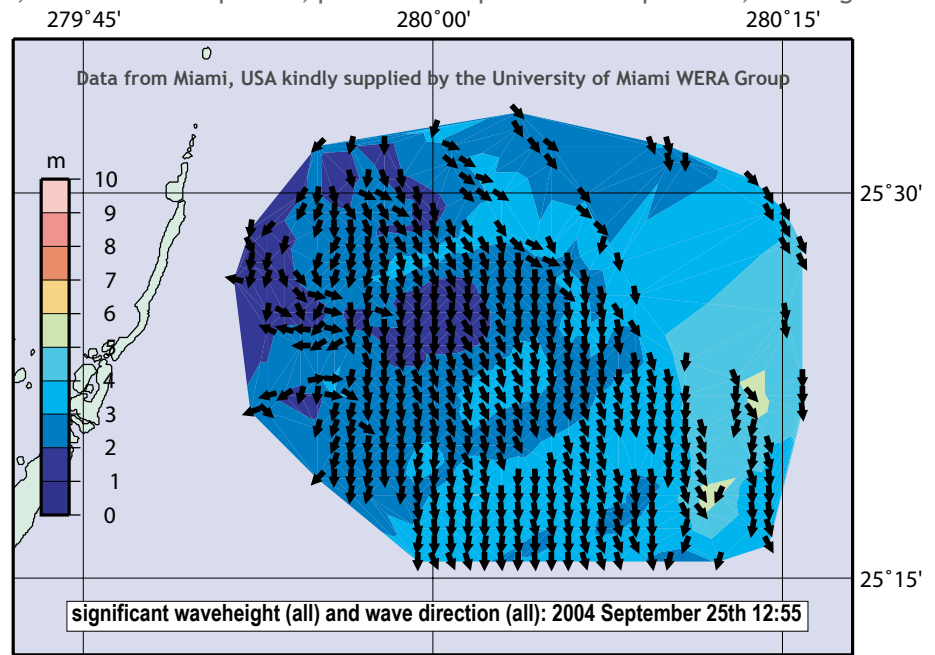
Seaview Sensing Ltd

Seaview Sensing Ltd is a marine information company that can provide you with high-quality consultancy and software for real-time, concurrent measurement, analysis and interpretation of wave, wind and current parameters, with a high spatial and temporal resolution and large area coverage. These parameters are key determining factors in the monitoring and understanding of environmental processes such as climate change, coastal erosion, flooding and pollution and for activities in coastal seas.

Seaview Sensing Ltd was founded in 2004 making decades of research and software development, led by Prof Lucy Wyatt, accessible to the ocean sensing world. At Seaview products' core is software that processes phased array HF radar data, the software is proven, portable and platform independent, working with any suitable radar.



Seaview software provides solutions for Research Institutions, the Oil & Gas Industry, coastal & harbour management and renewable energy producers.



Seaview Realtime Software

At the heart of Seaview products and services is Seaview Realtime software that processes phased array HF radar data to provide real-time measurement of surface currents, waves and winds and creates maps, time-series plots and directional spectrum wave plots with high temporal and spatial resolution and large area coverage, up to 250km offshore. The data is calculated at multiple grid points across the coverage area, this could be 300 high quality data points across an area of 500 to 20,000 km squared. The full directional spectrum for the waves is calculated at each point with sufficient signal, which allows variation in the wave field to be accurately captured. With current technology calculations take around 0.16 sec per data point, so typically the entire area may be updated in less than one minute after the radar data has been collected. The radar data collection period is dependent on the beam-forming methods of the radar and on the required averaging period for wave measurement, so typically the data updates occur every ten minutes. The data is then available locally or on-line using Seaview Data Viewer that provides a variety of easy to use data maps, tables and plots.

Based on the SPRO software developed at the University of Sheffield, Seaview Realtime software has been proven in met-ocean experiments such as SCAWVEX and EuroROSE and has been available in full operational mode since 2002. The software has been used with radar data from OSCAR, WERA and Pisces radar systems in the Netherlands, Norway, Spain, USA and UK.

Most recently the software has been used by the UK Met Office with Pisces HF radars in the Celtic sea for potential inclusion in UK wave monitoring network WAVENET and by various clients using WERA HF radars in Miami and Georgia, South Carolina in the USA, the Brittany Coast in France and Oman.

Seaview Realtime software provides wave, surface current and wind data

Seaview Realtime is proven, portable and platform independent, working with any suitable radar.

Seaview provides a large area coverage, up to around 20,000km squared with fine spatial resolution. Depending on radar installation, the range and resolution would typically be:

- Currents and wind measurements 50km at 1km resolution to 250km at 15km resolution
- Wave measurements 25km at 1km resolution to 150km at 15km resolution

Seaview data includes measurements of surface current direction & speed, wave height, period, direction & full directional spectrum and wind direction at each grid point across the area.

Seaview Realtime software calculates the full directional spectrum for waves at every possible data location across the sea area; this allows the full wave picture to be accurately captured and full direction spectrum plots to be displayed for each grid point where the radar signal is sufficient.

Fast calculation (less than one minute after data collection)
- the data update rates are defined by the radar selected, which typically allows a refresh every ten minutes.

Seaview provides comprehensive support for the software, the systems and technical expertise in system optimisation and data interpretation.

Seaview Data Viewer presents real-time and historical data clearly as a map, in tabular form, in time series plots and directional spectrum plots for viewing locally or on-line in real-time and downloading data quickly and easily.

Environmental warnings may be incorporated into Seaview Realtime software for particular applications and sent out as text alerts or emails for events such as storm surge alerts.

Seaview Realtime includes system diagnostics to recognise some radar system malfunctions; these can be linked to alerts via your preference of text messaging or email so that malfunctions are recognised immediately and repaired quickly.

Seaview Realtime software has been verified in met-ocean experiments including SCAWVEX and EuroROSE and has been used with radar data from OSCR, WERA and Pisces HF radar systems in France, the Netherlands, Norway, Oman, Spain, the USA and the UK.

Seaview originates from the radar and wave measurement expertise of Professor Lucy Wyatt and her team at Sheffield University; the company benefits from the continuing growth in their knowledge and dedication to our clients.

