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The WERA Mobile Solution! Ask for details on purchase and leasing options.

The new generation WERA Compact 12 +

Our answer to a demanding trend towards more sustainability and environmental protection in the use of high end technology: WERA Compact 12+

Always a wavelength ahead

More compact hardware

Flexible Site Geometry

Intelligent Energy Management

Low Power Consumption

High Signal Quality

Highest Data Availability

Tx SAT Unit

WERA Compact 12+

The new ocean radar system "WERA COMPACT 12+" is the more compact successor of the well-known WERA system. The system provides several new features to offer more flexibility for site geometry to make the site selection easier. In particular the wireless connection between the transmit and receive unit allows to install the WERA COMPACT 12+ even at populated coasts where suited sites are rare.

A new independent transmit unit guarantees this wireless connection to the main WERA station. This configuration allows to place the ocean radar main unit directly next to the receive antenna array, e.g. in the center behind the antennas. This new feature is available as upgrade for existing WERA systems as well. The Tx-SAT option enables users to install the Tx unit separately from the main WERA unit without cable connection.

Furthermore the power consumption is minimized to enable the operation at remote locations. The total power consumption of less than 300 Watts can be provided by means of solar power generators. The high quality standard and reliability of the WERA concept is kept to guarantee highest data availability for operational application.

The new system will cover the entire frequency range that is allocated for ocean radar (4.4 to 44 MHz) and furthermore now frequencies up to 70 MHz (VHF) can be used. These lower VHF bands are no longer used for broadcasting TV channels, so there is a good chance to get an experimental license for highest resolution (<100m), short range (10km) measurements.

For the scientific community the open interface structure is kept as well to allow scientists to use this instrument for research projects. Results of first tests at the German coast demonstrate the high signal quality of the new WERA COMPACT 12+ system.

4th Workshop on Remote Ocean Sensing - ROS Chile 2013 Proceedings

You missed the 4th Workshop on Remote Ocean Sensing ROS-2013 held March 13 - 14 at the University of Concepción in Chile?

This workshop was a technical and scientific orientated workshop for all groups working with Ocean Radar or interested in this technique. It was a perfect occasion to get feedback from experienced Ocean Radar users such as:

- Universidad de Concepción, DGEO, Chile
- University of South Carolina, Marine and Geological Sciences, USA
- Universidad Autónoma del Estado de Baja California, Faculty of Marine Sciences, Mexico
- Helmholtz Zentrum Geesthacht, Center for Coastal Research, Germany
- OGS - Istituto Nazionale di Oceanografia e di Geofisica Sperimentale, Italy
- MELCO, Japan
- Ezcurra & Schmidt, Argentina
- Helzel Messtechnik, Germany

Should you be interested in special topics/presentations, please do not hesitate to contact us and we would be pleased to forward the proceedings. Here are some of the topics:

- Basic Principles of HF Radar
- Ocean current forecasts by HF radar
- Tsunami Detection
- Japanese Tsunami warning concept
- Physics-biology Interaction studies using HF radar
- Surface currents in Fjords
- Nearshore Hydrodynamic Measurements using VHF
- Wind directions observed with HF radar
- New compact systems
- Different operation modes

Details on the ROS-2013 topics could be found at http://www.roschile.com/

WERA success stories at a glimpse

Red: coverage to get directional wave data
Yellow: for current vectors

Until December 2012, a short-term installation of two WERA high-resolution short-range systems delivered data for an in-depth scientific study of coastal erosion and the movement of sediment along the coast of **Dingle Bay, Ireland**, in order to measure wave statistics and gather up-to-date scientific data.

The project was commissioned in response to the large scale erosion that has been occurring on Rossbeigh Beach over the past five years. The data will increase the understanding of coastal processes in Dingle Bay which is vital to predicting the future of Rossbeigh and the Dingle Bay area in terms of erosion, flood mitigation and planning policy.

The Dingle Bay Radar Project is being managed by the Hydraulics and Maritime Research Centre of the University College of Cork. The installation has been supported by our partner MARTEK Ireland.

WERA Northern Radar Rx-Array
Saint-Laurents River Estuary - Canada

Northern Radar Tx-Array

Under the umbrella of the SOFT (Submesoscale Ocean Fronts and Turbulence) project and financed by the CRSNG the first two WERA NorthernRadar systems were installed at Pointe-à-Boisvert (PAB) and Pointe-aux-Outardes (PAO) at the Northern estuary of the Saint-Laurents river.

The systems are operated by ISMER-UQAR (Institut des Sciences de la Mer de Rimouski of the Université du Québec à Rimouski) Canada and prove the successful cooperation between Helzel Messtechnik and the Canadian companies Northern Radar and ASL Environmental Sciences combining their knowledge in this system. The core systems are 12-channel WERAs, the antenna construction has been delivered by Northern Radar, installation support came from ASL Environmental Sciences. The 16 MHz systems deliver data every 20 minutes. The data will be validated by buoy installed ADCPs.

WERA
Ocean Remote Sensing

Join the GEO Global HF Radar Network

The Group on Earth Observations (GEO) has formed a Global HF Radar Network with working groups organising regular meetings and using their webpage to support and promote HF Radar Technology.

This excellent platform will be used to inform about HF Radar Technology and to make political stakeholders aware of the tremendous advantages of HF Radar for environmental protection and prediction services. This would help you to convince your decision makers to apply for additional research funds for HF radar.

The long term goals are:

- To make HF radar data available in a single standardized format in near real time
- To develop a worldwide QA/QC standard
- To develop easy-to-use standard products
- To assure HF radar data assimilation in ocean and ecosystem modelling
- To develop emerging uses of HF radar in the areas of ecosystem, tsunami and climate

We would like to encourage you as WERA user to forward your coordinates of the installed WERA systems as well as real time data maps to the HF Radar Network to be published on this webpage.

Tell about the success stories with your WERA system! How you use it for public benefit and how you improve predictions with the real-time data implementation.

You can find the GEO Global HF Radar Webpage at: http://www.ioos.noaa.gov/globalhfr/welcome.html
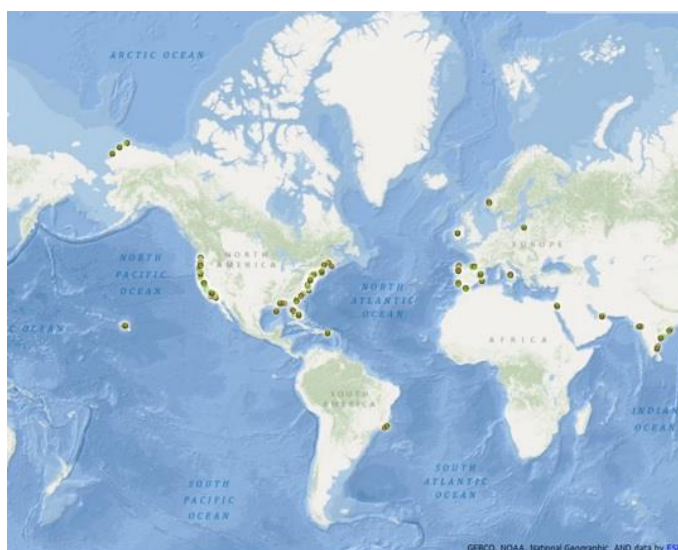
If you cannot find your WERA site on the IOOS/NOAA map, it is time to
Sign Up to participate in the Global HF Radar effort: global.hfr@noaa.gov

Point of contact: Jack Harlan, NOAA, e-mail: jack.harlan@noaa.gov

WERA Operators Seminar

We would like to invite you to join us for our next WERA Operators Seminar in Kaltenkirchen, Germany:

Autumn 2013

This one-week intensive seminar is an excellent opportunity for potential users or for operators who already work with the WERA system and data on a daily basis to get to know all they need to experience about our Ocean Remote Sensing Technology.

Understanding the physics and technology behind WERA, an overview on the system hard- and software structure, basics for site planning will be explained to enable users or consultants to carry out future site planning, introduction to the software tool box and tools for quality assurance will be points on our agenda.

One day is reserved for a field trip to one of the WERA sites at the North Sea coast to carry out practical training.

The date will be announced soon at http://www.helzel-messtechnik.de/de/13917-WERA-Operators-Seminar

Mark your calendar to meet us: