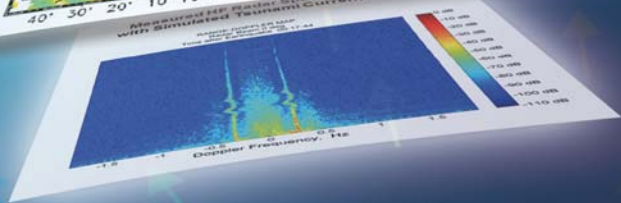
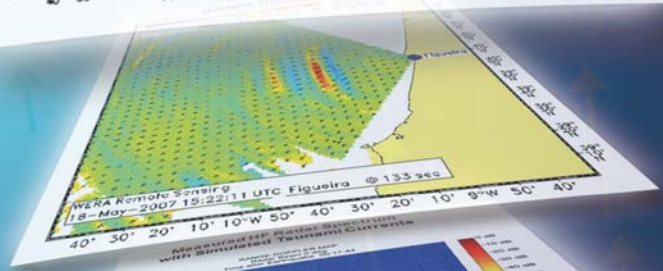
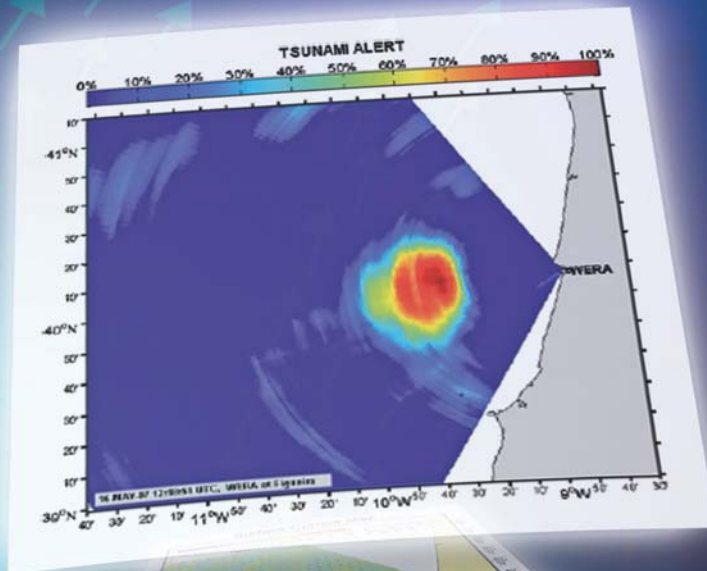


Leader in reliable high-quality ocean current, wave and wind mapping



Tsunami Detection



Ocean monitoring system for timely tsunami detection





▲ Small receive antennae (3 m pole) linear array at Fremantle, Australia Range > 200 km



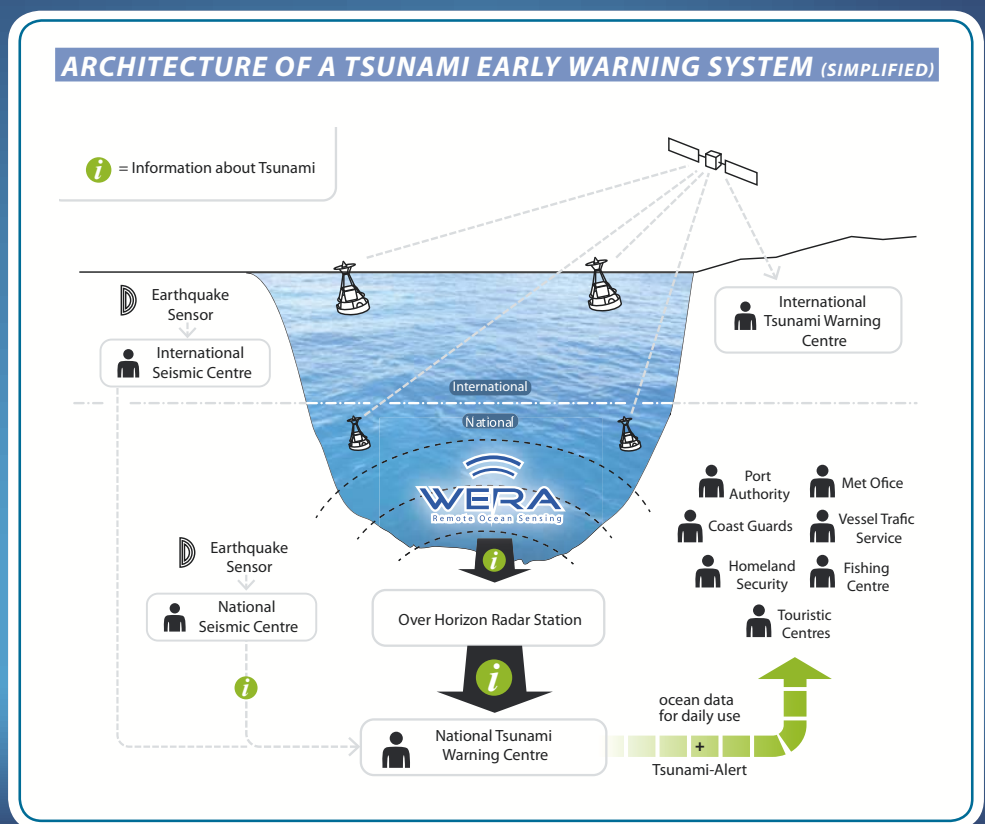
▲ Low power consumption, to be operated at remote locations



▲ For timely Tsunami detection the shelf edge should be located > 50 km off the coast

WERA combines all information for modern Coastal Management; measurements with high spatial and temporal resolution of Surface Currents, Wind Direction and Wave Parameters.

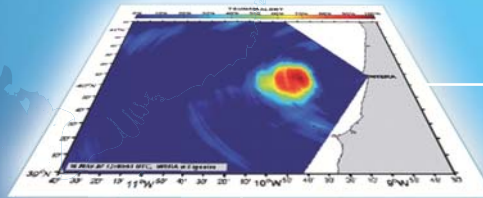
WERA can be fully integrated into a national Tsunami Early Warning System providing valuable data to reduce the false alarm rate improving the reliability of the entire system.



3-LEVEL-TSUNAMI INFORMATION*

WERA provides access to all relevant data with one click!

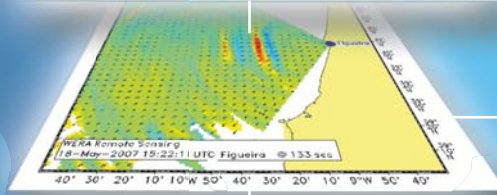
3 RD LEVEL



TSUNAMI ALERT MAP

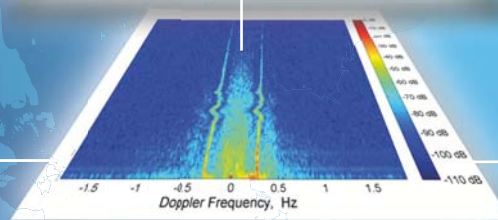
Automatic extraction of Tsunami signature to rise alarm

2 ND LEVEL



Monitoring of ocean current maps to identify unusual pattern

1 ST LEVEL



Access to range Doppler spectra, for experts to double check critical situations

complex signal analysis provides easy to use alert maps

* The scientific basis to use WERA for Tsunami detection was worked out by Dr. Anna Dzvonkovskaya and Dr. Klaus-Werner Gurgel

WERA FEATURES

- For time sensitive applications the 12 or 16 channel WERA beam forming configuration is recommended, providing highest reliability and accuracy
- These shore based systems are easy to maintain and economic to operate even at remote locations
- All data interfaces are accessible to ensure a smooth integration into existing data networks
- The robust shore based system delivers reliable data even under extreme weather and very dynamic ocean current conditions

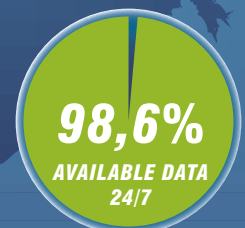
BEST TEMPORAL RESOLUTION



The focused beam of the linear array in connection with the unique FMcw technique makes WERA the fastest commercial ocean radar.

OUTSTANDING RELIABILITY

The outstanding reliability was reported by WERA users, e.g. 98.6 % of data availability permanent for more than 2 years**



** V. Mariette, N. Thomas, L. Petersen, T. Helzel, „Accuracy and Reliability of Ocean Current and Wave Monitoring with the Coastal Radar WERA“, IEEE Oceans Conference Proceedings Bremen, May 2009



The worldwide WERA network features:

- 52 Systems
- for 21 customers
- in 16 countries
- for operational purpose
- as well as scientific applications.

Every day
WERA delivers
valuable ocean data
for a wide range of users:

 **Coast Guards**

 **Met-Office**

 **Port Authority**

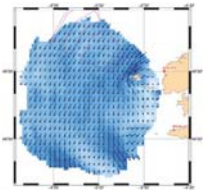
 **Fishing Centre**

 **Touristic Centres**

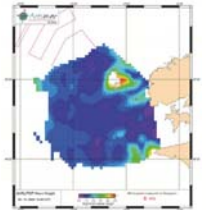
 **Vessel Traffic Service**

 **Scientists**

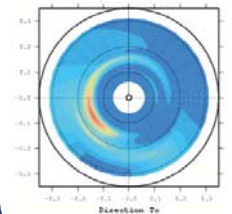
current maps



significant
wave height



directional
wave spectra



Our philosophy

It is our intention to provide the best sensor equipment for your application. We give advice about the optimal system configuration and do not conceal the limitations of the used technique. We always follow our customers advise regarding the integration of local services (scientific or civil engineering). The training of our customers personnel is one of our priorities and provides the basis for a fruitful cooperation.

Your local partner: