HIGHLANDER
海兰信

WAVE MONITORING RADAR
HDL-AWHC

Overview

The wave monitoring radar, is researched and developed by Highlander, with technological innovations and complete intellectual property rights. Based on the X-band navigation radar, it supports automatic real-time wave and current observation under all-weather condition , and it also support wave height, wave direction and current velocity data detection in detected sea area

This product monitors the sea waves through the original echo signal of the radar, inverts the wave parameters and the current in nearby sea area to generate the height curve of virtual buoy. The wave data can be recorded in real time and be played back at any time. The interface of the display and control terminal can display, inquire and analyze the historical wave parameters data.

Type of production

- HLD-AWHC1000 X-band shore-based wave monitoring radar
- HLD-AWHC2000 X-band shipped wave monitoring radar

Main Features

- Adopting the world's leading SWEEP, EOF and other algorithm fusion, more accurate inversion results
- Unattended, fully-automatic and all-weather operations, without manual intervention
- Wide coverage, get the sea-state information at any location within the radar detection range.
- High flexibility, both independent observation by single radar and networking observation by multi-radar are OK
- Easy installation, low maintenance cost, support the reuse of X band navigation radar on board
- Modular design, flexible configuration according to the requirements ,effectively reduce costs

Applications

- Ocean engineering construction
- Prediction for disaster reduction and prevention
- Guarantee marine navigation safety
- Ensure the safety production of marine fishery

Specifications

Parameters	Range	Resolution	Accuracy
Significant wave height	0.5-20m	0.1m	± 10%
Peak period	3-30s	0.1s	± 0.50s
Peak direction	0-360°	1°	±2°
Peak wave length	15-600m	1m	±10%
Surface current velocity	0-5m/s	0.1m/s	±0.2m/s
Surface current direction	0-360°	1°	±2°

Function

Wave measurement

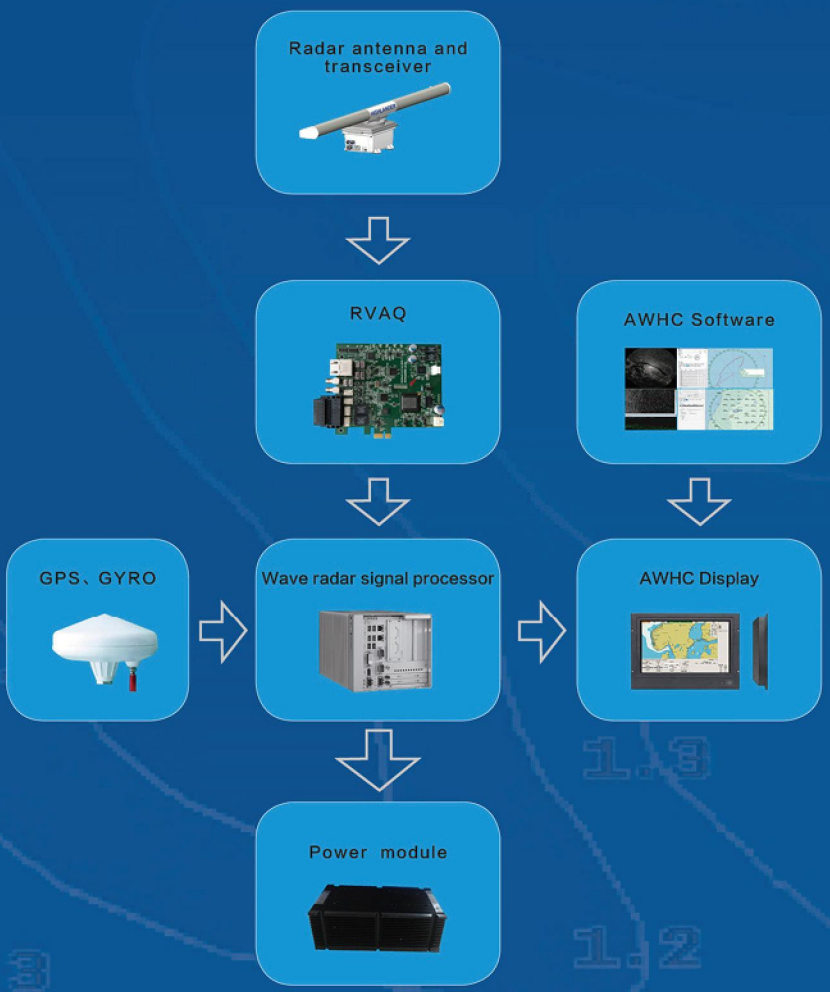
By analyzing the navigation X-band radar image sequences and obtaining the information of wave , it can measure the significant wave height, peak period, peak direction, peak wave length.

Current measurement

It can measure surface current velocity and surface current direction.

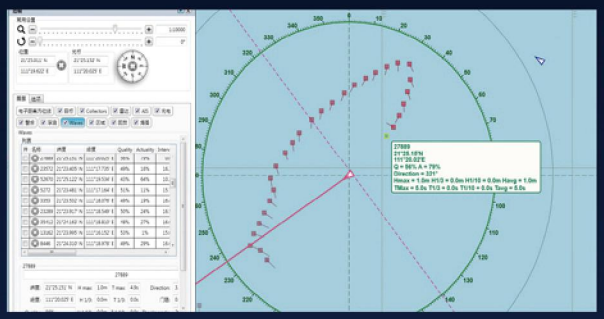
Component

The wave monitoring radar is consists of the radar antenna, radar transceiver, high-speed radar signal acquisition card, wave radar signal processor, power module, the display terminal and the software.

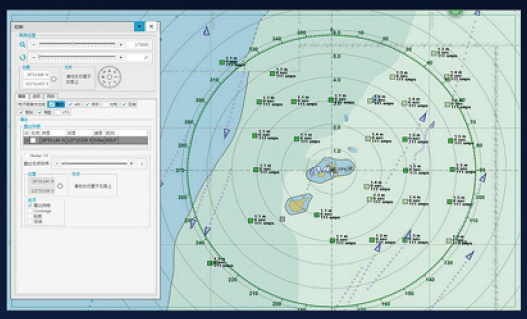


Wave Monitoring Radar

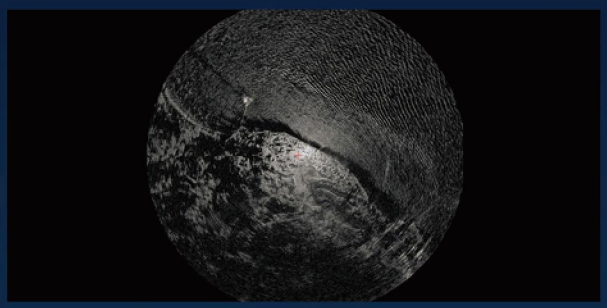
The wave monitoring radar does not require an operator watchkeeping. It has several views and displays to show the original radar images, processed images, detection results, history record and etc..



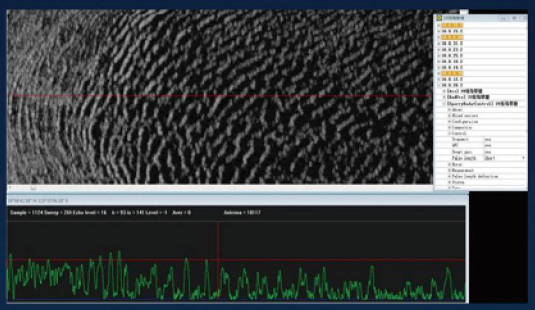
A wave monitoring radar for ships



A wave monitoring radar for shore-based



Original image



Original image in some regions

Applications

Shore-based

Shipped

Offshore oil platforms

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