

Over-The-Horizon (OTH)

HF Coastal Surveillance Radar

ELM-2270



Creating a Difference



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The ELM-2270 OTH radar is long range High Frequency (HF) band coastal surveillance radar, designed to detect sea surface targets and low flying aircraft, far beyond the local horizon. The radar monitors activity within the nation's Exclusive Economic Zone (EEZ), up to 200Nm from the sea shore, by employing HF surface wave propagation. The system transmits a wide angle beam, simultaneously covering 120° in azimuth, while the receiving section comprises of one or more arrays of vertical antennas which provide instantaneous coverage of the entire sector. Employing phased array technology and unique interference cancellation techniques the radar provides reliable, persistent coverage of the broad maritime area at all times, regardless of atmospheric conditions or sea state. The radar application ranges from Exclusive Economic Zone surveillance, coastal Over-The-Horizon Situation Awareness Picture (ASP) generation, and low altitude aircraft detection.

Features

- HF band operation
- Continuous large area situation awareness picture
- High resolution digital array
- Flexible receiving antenna array size
- Advanced noise cancellation (ionosphere clutter, man-made, communication)
- Pulse Doppler large integration time
- Cost-effective maintenance

Specifications

- Frequency band : HF
- Azimuth coverage : 120°
- Detection range : up to 200 Nm (target size dependent)
- Range accuracy : 2 km
- Range resolution : 3 km
- Azimuth resolution - array size and frequency dependent

Detection capabilities

- 1500 tons ship - 370 km
- Low flying aircraft (King Air 200) - 130 km

