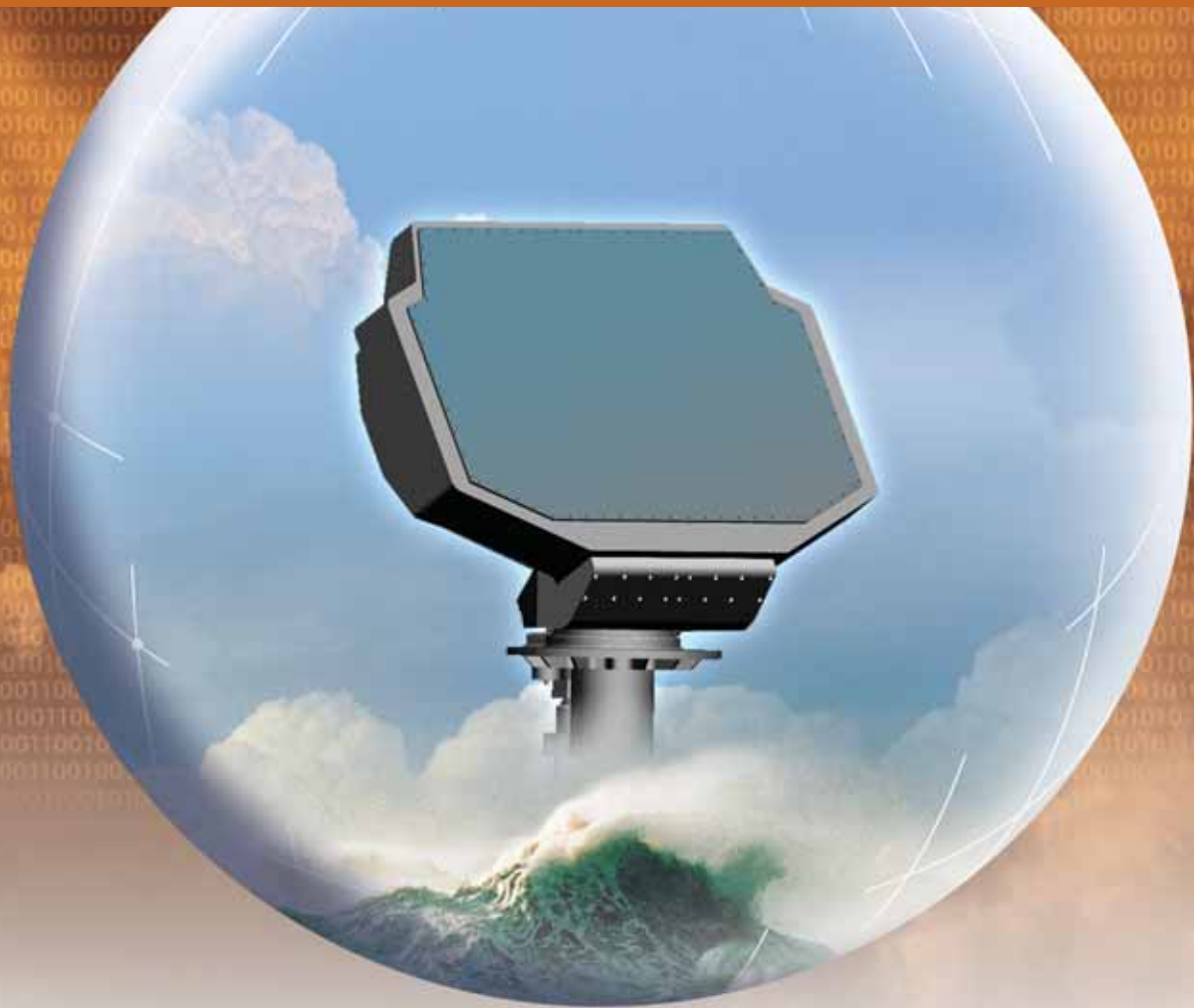


# ALPHA - Advanced Lightweight Phased Array Naval Radar ■ EL/M-2258



■ TARGET ACQUISITION & FIRE CONTROL

## General

The EL/M-2258 ALPHA is a multi-function solid-state active phased array radar system for the new generation of medium-sized combat ships.

The ALPHA Radar antenna consists of a lightweight, rotating/scanning, two-dimensional active array in S-band that is suited for installation on-board a variety of ship classes such as corvettes, frigates and larger vessels.

The radar system delivers high quality maritime theater situation awareness pictures and supports the ship's weapon systems, under the toughest target/environmental conditions in the current and future naval arena.

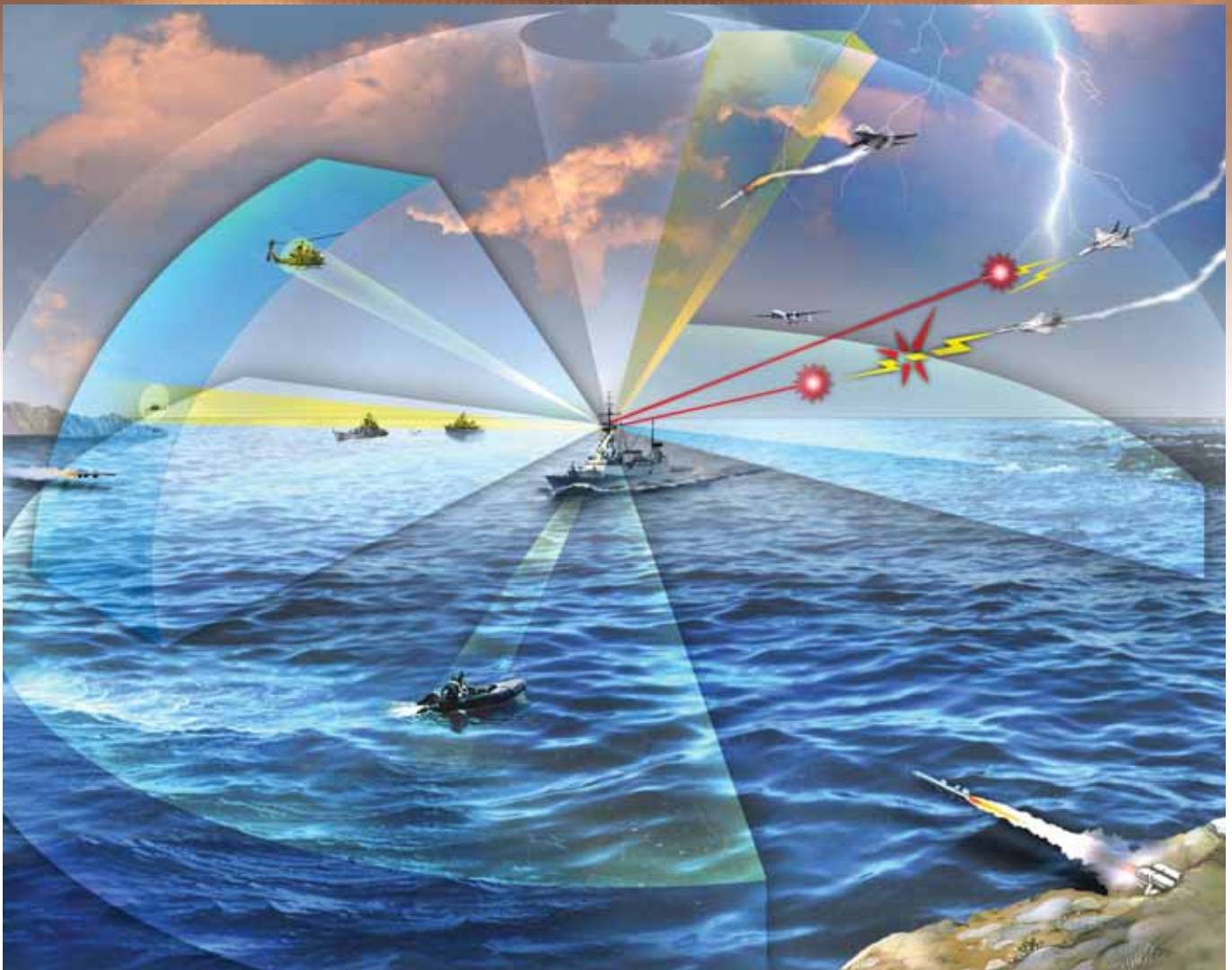
Featuring advanced technologies and robust system architecture, the EL/M-2258 ALPHA employs multi-beam and pulse Doppler techniques as-well-as robust ECCM techniques to extract fast, low RCS targets in complex clutter and jamming environments.

The hardware architecture and technologies ensure high system availability and low life cycle cost.

## Features

- Full solid-state Rx/Tx architecture
- Two dimensional electronic beam steering
- Fast reliable threat alert response time within the same scan
- Very high tracking update rate and accuracy for high priority targets
- Instantaneous multi-beam
- Automatic splash detection and measurement for gunnery support
- Advanced Beam Forming techniques for multipath suppression and ECCM
- Lightweight antenna
- Scalable, modular active solid-state phased array
- High reliability and high availability

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## Operational Capabilities

- Blue water and littoral warfare support
- High resolution maritime surface surveillance and tracking
- 3D long-range air surveillance and tracking
- 3D medium range automatic threat alert
- Target classification (including Helo)
- Gunnery control and splash spotting

## Performances and Parameters

- Automatic track initialization:
  - Low flying attacking missile > 25 km
  - High flying fighter aircraft > 120 km
- Antenna:
  - Rotating/Scanning Phased Array Face
- Spatial coverage:
  - Azimuth: 360°
  - Elevation: horizon up to 70° including electronic stabilization
- Weight: 700 kg on mast / 500 kg below deck

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