



Aerostat Early Warning Air Surveillance and Air Defense Radar System

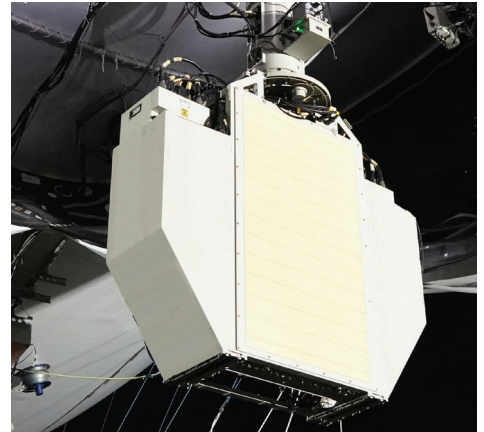
ELM-2083A



Aerostat Early Warning Air Surveillance and Air Defense Radar System

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ELM-2083A is the latest version of ELTA's world-renowned Aerostat Early Warning Air Surveillance and Defense System (ELM-2083). The latest system is based on an operationally proven tethered aerostat-borne, 3-D multi-beam, Doppler radar. Deployed at high altitudes, the radar, operating at C-band, is capable of detecting and tracking low-flying targets including cruise missiles, UAVs, as well as fighter aircrafts, and loitering munition at long ranges far beyond the range of ground-based radars as well as monitoring maritime targets. The radar is an Active Electronically Scanning Array (AESA) enabling electronic steering utilizing high-performance Gallium Nitride (GaN) RF modules. With low operating costs, the robust system can operate between 8-15K feet above sea level for up to 30 days, depending on weather conditions.



A variety of ELTA sensors (ELINT, IFF, and EO/IR) can be added to the platform to improve target classification, identification, and discrimination. Furthermore, the system can support COMINT, communication relays, or any other required payload. The complete solution can be controlled from onsite or a remote C² location and is interoperable with local C² as well as being integrated with air defense weapon systems using a variety of interface protocols (i.e. ASTRIX, L16 or equivalent), and other C4I systems.

Features

- A unique combination of phased array electronic steering (AESA) with mechanical high-rate rotation offers:
 - Detection & tracking (Track-While-Scan capability)
 - Simultaneously tracks of hundreds of targets
 - Fast update rates enable continuous tracking of low flying targets
 - High probability of detection
 - Very low false alarm rate
 - Tailored search & track coverage capabilities
- High reliability, maintainability and availability
- Variety of interface protocol options to C4I systems

Specifications

Descriptions	Parameters
Missions	Early Warning, Weapon System Support, Maritime Surveillance
Instrumental Range	200 NM
Detection Range	Topographic LOS: 160 NM at 15k ft elevation
Coverage	360°
Optional Payloads	ELINT, COMINT, IFF, EO/IR, Comm. Relay
Modes of Operation	Rotating (15/30 RPM) / Sectorial
Interoperability	C ² / C ⁴ I/ Weapon system
Ground Control	Onsite / Remote

