



AD STAR
Air Defense Surveillance & Air Traffic
Control Radar
ELM-2288





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AD-STAR (ELM-2288) is a ground-based 4D solid-state S-band radar for long-range aerial surveillance, Early Warning (EW), and Air Traffic Control (ATC). Integrating both IFF and ADS-B for providing cooperative detection, interrogation, decoding and tracking, AD-STAR is operational worldwide delivering high-quality Air-Situation Picture (ASP) encompassing both cooperative and non-cooperative targets. Customizable configurations are available to match customer requirements, from fixed installations (AD-STAR ER) to mobile systems (AD-STAR MR). The radars are fully digital, using SDR (Software Defined Radar) capabilities and multiple digital transmitters and receivers to ensure high redundancy, reliability and availability while providing maximum flexibility in waveform and beam-shape selection. The radar system is optimized for operation in dense clutter and electromagnetic conditions. High efficiency Gallium-Nitride (GaN) transmitter technology reduces power consumption and lowers operation costs. The AD-STAR detects high and low flying targets including hovering helicopters, tracks, classifies and generates a real-time Air Situation Picture of all aerial targets as well as low Radar Cross Section platforms (e.g. UAVs, loitering munitions, cruise missiles).

The latest version significantly improves the AD-STAR MR mobile system, resulting in higher performance, including long range and a faster update rate. It is now packed in an All-In-One configuration that features single-track transportation and an autonomous, self-contained automatic leveling mechanism for superior mobility. The system can also be easily transported by a C-130 aircraft.

AD-STAR offers an integrated ELINT system (optional) for enhanced classification, identification, and target discrimination. The ELM-2288 can operate as an independent system or as an integral part of a nation's air defense and surveillance network. The radar can seamlessly interface to ELTA's Panorama (ELI-4000) Air Command and Control System.

MISSIONS

- Air Surveillance
- Early Warning Alerts
- Air Traffic Control

FEATURES

- 4-D, S Band Radar with GaN T/R Modules and Software Define Radar (SDR)
- Fully digital with Digital Beam Forming (DBF)
- Rotating 360° coverage (up to 15 RPM)
- Advanced ECCM capabilities
- Intelligent signal processing for operation in dense & clutter environments
- Civilian Air Traffic Control compatible – ICAO (International Civil Aviation Organization)

SPECIFICATIONS

Description	Fixed Installation (ER)	Mobile Configuration (MR)
Instrumental Range	350NM (650Km)	295NM (550Km)
Azimuth Coverage	360°	
Operation Mode (update rate)	6, 12 RPM (10, 5 sec)	6, 15 RPM (10, 4 sec)
Elevation Coverage	0° – 30°	
Look Down Capability	-7°	
Height Coverage	100k ft (30.5Km)	
Simultaneous Tracking	Up to 1000 targets	

