

"Green Pine" Radar System

EL/M-2080



General

The EL/M-2080 "Green Pine" Radar System, is a transportable ground-based, multimode solid state phased array radar. Incorporating ELTA's vast experience in surveillance and fire control radars and utilizing the company's state-of-the-art phased array technology, the "Green Pine" radar is designed to autonomously detect and simultaneously track dozens of Tactical Ballistic Missiles (TBMs) from long ranges, under all weather conditions and in the presence of undesired echoes.

The modular, solid state, active array technology implemented in the radar, including multiple advanced transmit / receive modules, provides high redundancy, graceful degradation, high reliability and high availability.

Operational in the Israel Air Force, this advanced radar enhances the country's Air Defense System.

Features

- Multi-mode operation
- Autonomous long range acquisition of TBMs
- Capability to track dozens of TBMs
- Wide and flexible spatial coverage
- Capability of discriminating among TBMs and other target types
- Accurate impact and launching locations prediction
- Interoperability with complementary Air Defense Systems
- High reliability, maintainability and availability
- Advanced on-line Built-In-Test (BIT) capabilities

"Green Pine" Radar System

Operational Capabilities

Early Warning Alert

Enables civil population protection at national level.

TBM Impact Point Prediction

Enables the use of passive defense in endangered areas.

TBM Launch Point Location

Enables real-time counterattack against TBM launchers.

Accurate Tracking of Missiles

As part of the "Arrow" Weapon System, the radar has potential interoperability with any other defense system.

System Components

Active Array Antenna

- Transmit / Receive modules for flexible electronic beam steering.
- Dedicated trailer and positioner

Command and Control Shelter

- System monitoring and parameters adaptation via the Operator's Work Stations.
- Radar signal processing, computing and communication.
- Highly sophisticated software which enables high degree of flexibility and adaptation to highly dense scenarios.

The Power System

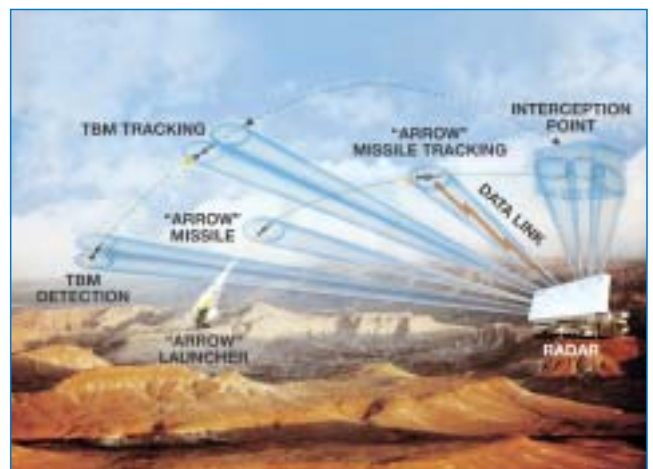
- No Break System (NBS) container – including a diesel generator, inductive clutch control module and fuel tank.
- Transformers Container – including transformers, service generator, DC Converter and switching racks.

The Cooling System

- Cascaded cooling machines, cooling liquid tank and control panels.
- Inherent redundancy.
- Cooling based on heat exchange.



Command & Control Shelter



"Green Pine" Radar's tasks within the "Arrow" system

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EARLY WARNING
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DEFENCE
& SELF-PROTECTION

TARGET ACQUISITION
& FIRE CONTROL