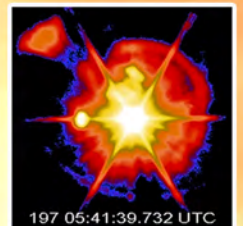
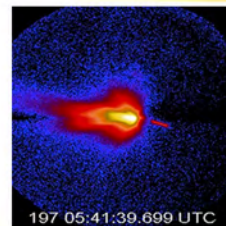


# ARROW WEAPON SYSTEM

THE WORLD'S MOST ADVANCED MISSILE DEFENSE SYSTEM



*Where Courage Meets Technology*

# ARROW Weapon System

The world's first Operational Missile Defense System

The Arrow Weapon System is a national multi-tier, Anti-Theater Ballistic Missile defense system.

Developed for the Israeli Air Force by the MLM Division of Israel Aerospace Industries, the system has been operational since 2000 and serves as a key component in Israel's defense Architecture.

The Arrow Weapon System can operate in Standalone or Net-Centric modes, protecting Israel against short, medium and intermediate-range ballistic missiles. It can effectively intercept threats carrying Weapons of Mass Destruction and other types of conventional warheads.



## A State of the Art Missile Defense

The Arrow Weapon System (AWS) is a family of interceptors and modular subsystems designed to provide a highly effective, multi-tiered defense against the growing threat of Theater Ballistic Missiles (TBMs).

The Weapon system surveils, detects, tracks, discriminates, engages, kills and assesses incoming TBMs. It has a large defense footprint, providing protection for key strategic assets and acting as a national defense system.

The system is modular and can be reconfigured and adapted to specific requirements, geographical features, existing systems and infrastructures such as sensors and other C2 assets. The Arrow system is easily transportable, enabling its rapid deployment against ever changing threats.

AWS is interoperable with all U.S. and NATO systems and sensors via Link 16.

## Main Features:

- Large defended area
- High lethality against various types of missiles and warheads
- Multiple TBM salvo interception capabilities
- Early warning, target identification, launch point estimation and precise impact point prediction
- Flexible and adaptable to most environments and infrastructures
- Open system architecture allows full interoperability with other air and ground missile defense systems
- Modular, easily expandable baseline solution
- Flexible management of weapon system resources
- Automated and Man-in-the-Loop battle management modes
- Launch on remote and Engage on remote capabilities



# ARROW Weapon System

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## The Arrow Interceptors

### ARROW 2

Operational since 2000, Arrow 2 is the first interceptor in Israel's multi-tier defense system.

#### Key features:

- Large defended area
- Endo- and Exo-atmospheric interception capabilities
- High lethality against a large range of TBMs and warheads
- Hypersonic velocity
- Aerodynamics and Thrust Vector Control enable Endo- and Exo-atmospheric control
- Very short reaction time
- Two solid-propulsion stages
- Advanced endgame sensors and counter countermeasures
- Powerful fragmentation warhead

### ARROW 3

Operational since 2017, Arrow 3 is the upper-tier, Exo-Atmospheric interceptor in Israel's multi-tiered ballistic missile defense system, covering larger defended area.

It provides an unrivaled solution to cost-effectively destroy long range threats far away from their targets. It is designed to shoot down threats outside the atmosphere, closer to their launch sites, Arrow 3 can share the same weapon system components - launchers, C2, sensors and other assets - with the lower tier Arrow 2.

#### Key features:

- Very large defended footprint
- Exo-Atmospheric interception capabilities
- High lethality against TBMs and warheads, including WMDs.
- Longer range detection, tracking and discrimination capabilities
- Hypersonic velocity
- State-of-the-art maneuverability and divert capabilities, making use of Thrust Vector Control (TVC) and a dual-pulse second stage motor
- Very short reaction time
- Two solid-propulsion stages
- Advanced long range-acquisition endgame sensors
- Hit-to-kill technology
- Compatible with 21" Vertical Launch System (VLS)



## Arrow Weapons Subsystems (AWS)

### Fire Control Center (FCC)

The Battle Management, Command, Control, Communication and Intelligence system (BM/C3I) centralizes the data processing, threat assessment, system optimization and mission control for Arrow 2 and 3.

#### Key features:

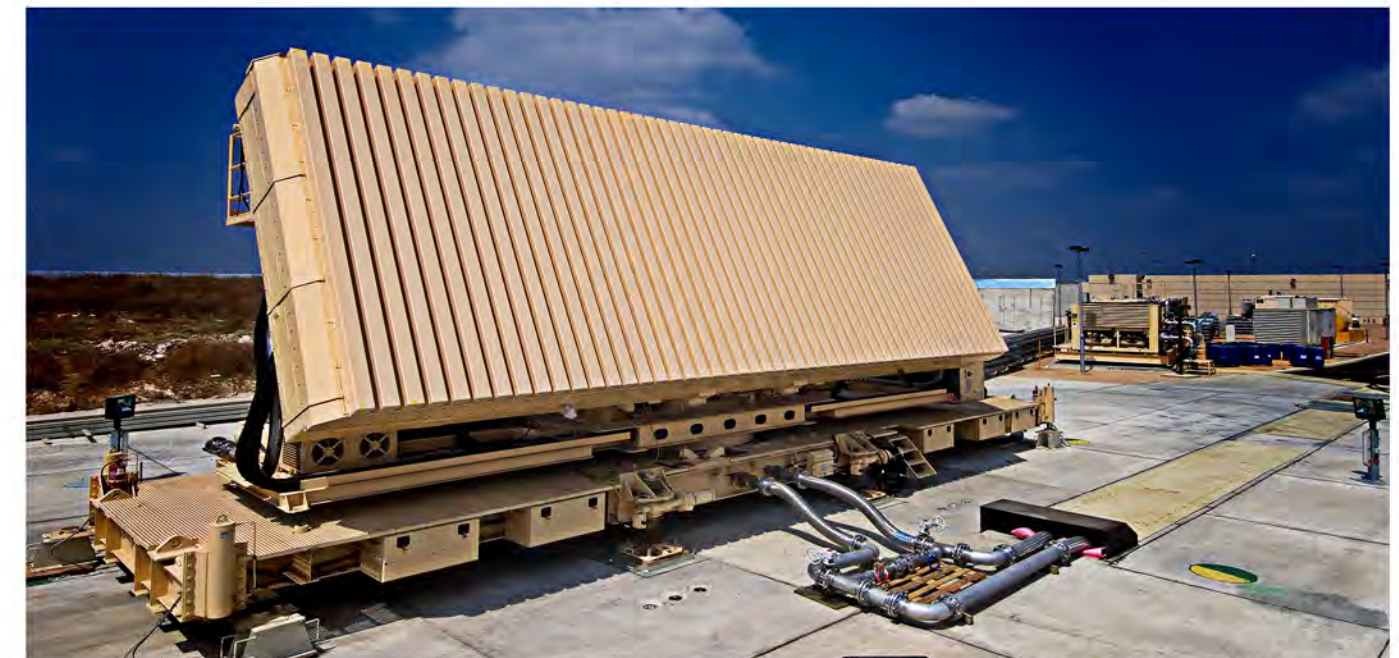
- Manual and/or fully automatic battle management modes
- Simultaneous handling of multiple threats
- Cue to/from other weapon systems
- Advanced Man Machine Interface (MMI)
- Full recording and playback for post mission debriefing
- Interoperable with multiple radar bands and C2BMC (Command, Control, Battle Management, and Communications) systems

### Fire Control Radar (FCR)

Arrow's cutting edge L-Band radars, based on decades of experience in early warning and fire control, are able to effectively combat sensor outages and jamming, and track and engage multiple threats.

#### Key features:

- L-Band phased-array radar
- Simultaneous early warning and fire control
- Extended-range acquisition
- Multi-target acquisition and tracking capabilities
- Discrimination capabilities
- Electronics counter countermeasures (ECCM) capabilities



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## ARROW Weapon Subsystems

### Launcher Control Center (LCC)

The Launch Control Center is located at the launch site and serves as the interface between the FCC and the launchers. .

#### Key features:

- Fully automated battle management mode
- Full system redundancy
- Interceptor maintenance and diagnostic capabilities
- Multiple independent safety mechanisms to prevent inadvertent launches

### Launcher

#### Key features:

- Vertical "hot launch" from sealed canisters
- Omni-directional coverage
- Six canisters per launcher
- Full redundancy for maximum system availability
- Fast reaction times
- Supports Arrow 2 and Arrow 3 interceptors
- Mobile and easily transportable



## Budget-Efficient Missile Defense

The Arrow Weapon System was designed to be cost efficient, keeping in mind multiple and ongoing threats.

Patented technology and operational solutions make Arrow the most affordable defense system available, while maintaining maximum performance and practicality.

#### Key features:

- Shoot-Look-Shoot (SLS) mode
- Common sensor array for all interceptor types
- Common launch array for all interceptor types
- Redundant, centralized BMC system
- National coverage and defense with system optimization
- Design-To-Cost (DTC) interceptors and subsystems
- Interoperability with other weapon systems maximizes efficiency





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