

Joint Land Attack Cruise Missile Defense Elevated Netted Sensor System (JLENS)

INVESTMENT COMPONENT

Modernization

Recapitalization

Maintenance

MISSION

Provides elevated, persistent, over-the-horizon detection, tracking, classification, and engagement data of cruise missiles, aircraft, unmanned aerial vehicles, tactical ballistic missiles, large caliber rockets, and surface-moving targets, enabling rapid defensive engagement by air-directed, surface-to-air, or air-to-air missile systems.

DESCRIPTION

The Joint Land Attack Cruise Missile Defense Elevated Netted Sensor System (JLENS) orbit comprises two systems: a fire control radar system and a wide-area surveillance radar system. Each system has a 74-meter tethered aerostat, a mobile mooring station, radar, communications payload, processing station, and associated ground support equipment. The JLENS

mission is achieved by both the fire control radar and the surveillance radar systems operating as an “orbit;” however, each system can operate autonomously and contribute to the JLENS mission.

JLENS uses its advanced sensor and networking technologies to provide 360-degree wide-area surveillance and tracking of cruise missiles and other aircraft. Operating as an orbit, the surveillance radar generates information that enables the fire control radar to readily search for, detect, and track low-altitude cruise missiles and other airborne threats. Once the fire control radar develops tracks, this information is provided to tactical data networks so other network participants can assess threat significance and assign systems to counter the threat. The fire control data supports extended engagement ranges by other network participants by providing high-quality track data on targets that may be terrain-masked from surface-based radar systems. JLENS information is distributed

via the Joint service networks and contributes to the development of a single, integrated air picture.

JLENS also performs as a multirole platform, enabling extended range communication and control linkages, communications relay, battlefield situational awareness, and can be configured to detect and track surface moving targets. JLENS can stay aloft up to 30 days, providing 24-hour radar coverage of the assigned areas. The radar systems can be transported by aircraft, railway, ship, or roadway.

SYSTEM INTERDEPENDENCIES

In this Publication

Joint Tactical Radio System Multifunctional Information Distribution System (MIDS), Medium Extended Air Defense System (MEADS), Patriot Advanced Capability–Three (PAC-3), Surface Launched Advanced Medium Range Air-to-Air Missile (SLAMRAAM), Warfighter Information Network–Tactical (WIN-T) Increment 1, WIN-T Increment 2, WIN-T Increment 3

Other Major Interdependencies

The JLENS System is dependent on capabilities provided by CEC, MIDS, Integrated Broadcast System (IBS). The JLENS program is interdependent with PAC-3, SLAMRAAM, MEADS, and Navy Integrated Fire Control–Counter Air (NIFC-CA).

PROGRAM STATUS

- **2QFY08:** Orbit preliminary design review
- **1QFY09:** Orbit critical design review
- **4QFY09:** Platform first flight
- **4QFY10:** Orbit 1 system integration begins

PROJECTED ACTIVITIES

- **2QFY11:** Orbit 1 integration complete
- **1QFY12:** Limited user test
- **2QFY12:** NIFC-CA demonstration
- **2QFY12:** Milestone C decision
- **3QFY13:** Operational test

ACQUISITION PHASE

Technology Development

Engineering & Manufacturing Development

Production & Deployment

Operations & Support

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FOREIGN MILITARY SALES

None

CONTRACTORS

Radar and Systems Engineering:

Raytheon (Andover, MA)

Surv. Radar:

Raytheon (El Segundo, CA)

Platform:

TCOM (Columbia, MD; Elizabeth City, NC)

SETA Support:

SETA (Huntsville, AL)

Engineering and Technical Support:

E&TS Ktrs (Huntsville, AL)

Software:

Raytheon Solipsys (Fulton, MD)

Software Engineering:

Northrop Grumman (Huntsville, AL)

JLENS KPPs:	Objective	Threshold
Combat ID:	Yes	Yes
SIAP:	360°	100°
IFC:	SLAMRAAM / PAC 3 / SM	SLAMRAAM / PAC 3
Net-Ready:	Meet all top-level IERS	Meet critical top-level IERS

