

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

## INVESTMENT COMPONENT

Modernization

Recapitalization

Maintenance

## MISSION

To provide over-the-horizon detection, tracking, classification, and engagement of cruise missiles and other air targets, enabling defensive engagement by air-directed, surface-to-air missiles or, air-to-air missile systems.

## DESCRIPTION

The Joint Land Attack Cruise Missile Defense Elevated Netted Sensor System (JLENS) comprises two systems: a fire control radar system and a surveillance radar system. Each fire control radar 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 aircraft. 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 Link 16 Tactical Data Link and the Cooperative Engagement Capability (CEC) Network and adds to the single integrated air picture.

JLENS also performs as a multirole platform, enabling extended range C2 linkages, communications relay, and battlefield situational awareness. 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

The JLENS program is interdependent with PATRIOT Advance Capability-3, Surfaced Launched Advanced Medium Range Air-to-Air Missile (SLAMRAAM), and Navy Integrated Fire Control-Counter Air (NIFC-CA). The JLENS System is dependent on capabilities provided by CEC, Multifunctional Information Distribution System (MIDS), Integrated Broadcast System (IBS), and the Warfighter Information Network-Tactical (WIN-T)

## PROGRAM STATUS

- **3QFY07:** Fire Control Radar critical design readiness review
- **2QFY08:** Orbit preliminary design review
- **4QFY08:** Surveillance radar critical design readiness review
- **1QFY09:** Orbit critical design review

## PROJECTED ACTIVITIES

- **4QFY10:** Orbit 1 system integration begins
- **4QFY11:** Limited users test (LUT)

## ACQUISITION PHASE

Technology Development

Engineering & Manufacturing Development

Production & Deployment

Operations & Support

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

### FOREIGN MILITARY SALES

None

### CONTRACTORS

Raytheon (Andover, MA; El Segundo, CA;  
Dallas, TX)  
TCOM (Columbia, MD)  
CAS, Inc. (Huntsville, AL)

