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

INVESTMENT COMPONENT

Modernization

Recapitalization

Maintenance

MISSION

Provides a persistent surveillance and tracking capability for unmanned aerial vehicle and cruise missile defense. The system also provides fire control quality data to missile systems such as Army PATRIOT and Navy Aegis and fighter aircraft, allowing these systems to engage hostile threats from extended ranges.

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 through the Joint service networks and contributes to the development of a single integrated air picture and the Army Integrated Air & Missile Defense, communicating with Air & Missile Defense systems of systems. 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
None

Other Major Interdependencies
The JLENS System is dependent on capabilities provided by Cooperative Engagement Capability (CEC), Multifunctional Information Distribution System (MIDS), and the Integrated Broadcast System (IBS). The JLENS program is interdependent with PATRIOT Advanced Capability-Three, Medium Extended Air Defense System, and Navy Integrated Fire Control–Counter Air (NIFC-CA).

PROGRAM STATUS
- **3QFY12:** Successful PAC-3 Integrated Fire Control Live Fire Test
- **4QFY12:** Naval Integrated Fire Control-Counter Air Demo
- **4QFY12:** Developmental Test 2

PROJECTED ACTIVITIES
- **1QFY13:** Limited user test
- **4QFY13:** Developmental Test 3
- **4QFY13:** Completes Engineering and Manufacturing Development Testing

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
Radar and Systems Engineering:
Raytheon (Andover, MA)
Surveillance Radar:
Raytheon (El Segundo, CA)
Platform:
TCOM (Columbia, MD; Elizabeth City, NC)
SETA Support:
Various SETA Contractors SETA
(Huntsville, AL)
Engineering and Technical Support:
E&TS Ktrs (Huntsville, AL)
Software:
Raytheon Solipsys (Fulton, MD)
Software Engineering:
Northrop Grumman (Huntsville, AL)