



## The Joint Land Attack Cruise Missile Defense Elevated Netted Sensor System (JLENS) Frequently Asked Questions

### ■ How big is JLENS?

It's 74 meters long – or roughly three-quarters the length of a football field.

### ■ Is JLENS a blimp?

Technically speaking, JLENS is an aerostat, which means it is a large, helium-filled balloon tethered to the ground. The tether carries power up to the JLENS radar, and sends data down to a computer processor. The tether is what enables JLENS to stay aloft for up to 30 days at a time.

### ■ Can the tether break?

The chance of that happening is very small because the tether is made of Vectran and has withstood storms in excess of 100 knots. However, in the unlikely event it does happen, there are a number of procedures and systems in place which are designed to bring the aerostat down in a safe manner.

### ■ Why put a radar on an aerostat?

An aerostat has two advantages. The first is elevation. If you're standing on the ground,

you can only see for a few miles because of the curvature of the earth. But, if you go to the top of a tall building, you can see much further. The same principle holds true with radar, which is why we put the radar on an aerostat that can go as high as 10,000 feet. The other advantage is persistence. Unlike a plane, which can only stay aloft for a few hours, the JLENS aerostat can stay in the air for up to 30 days at a time.

### ■ Why are there two radars on two aerostats?

One of the radars is used to provide 360-degree general situational awareness. The other radar provides very detailed information about objects spotted by the 360-degree radar. There is only one radar per aerostat.

### ■ What else can JLENS spot besides missiles, drones and planes?

JLENS can see machinery moving on the ground, like tanks, boats, trains and vehicles.

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## Frequently Asked Questions

### ■ Can JLENS see people?

No. JLENS is a radar. This means that while it is very good at seeing moving pieces of machinery, such as drones, airplanes, cars or boats, it can't see, much less track, individuals.

### ■ Can the JLENS radar track specific vehicles? For example, could it follow a particular car that the military was interested in?

No. Radars can tell that something is moving, but because of the way radars work, they simply can't determine identifying characteristics of cars, such as make, model or color. Along similar lines, they can't tell who is driving the vehicle or see a license plate.

### ■ Is it true Raytheon placed a camera on JLENS?

Yes. Raytheon conducted a company-funded experiment to see if a sensor, called an MTS-B – short for Multi Spectral Targeting System – would work on JLENS. We issued a [press release](#) on the topic on Jan 14, 2013.

### ■ Does this mean that the JLENS at Aberdeen Proving Grounds now has a camera on it?

No.

### ■ Who did Raytheon build JLENS for?

The U.S. Army is Raytheon's customer.

### ■ How many JLENS systems has Raytheon built?

A complete JLENS system, called an orbit, consists of two aerostats with radars mounted on them and ground stations. Raytheon has delivered a total of two orbits to the U.S. Army.



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