# HISTORIC MANEUVER

# CYGNUS BOOSTS ALTITUDE AFTER ISS UNDOCKING FOR DEPLOYMENT OF SPIRE SATELLITES



Cygnus CRS OA-5 launches from Wallops Flight Facility in Virginia aboard an Antares rocket.

#### 23 October 2016

Cygnus CRS OA-5 arrives at the International Space Station bringing much needed supplies to the astronauts living aboard.

# **Key Players**

NanoRacks' deployer pushes the satellites into Space. NanoRacks is the exclusive deployer of satellites from the ISS.

Orbital ATK's Antares launch vehicle carried their Cygnus spacecraft to orbit.

**NASA** and its international partners are the gateway to space and the ISS. Without their involvement & support. This mission would not have been possible.

# **How Many?**

There are **4** satellites on this deployment.

This brings Spire's active customer-data satellites to **16**.

This brings Spire's all-time launch total to **21**.

With 16, Spire now has more active ship tracking satellites than Orbcomm's OG2 constellation.

## 21 November 2016

Cygnus CRS OA-5 leaves the International Space Station.
Typically, the spacecraft would start its descent to burn up.
Instead, the spacecraft boosts its altitude and heads for an orbit different from the ISS.

### 25 November 2016

Spire's four Lemur-2 satellites are pushed into space via the NanoRacks External Deployer attached to the Cygnus spacecraft.

### Why Boost Altitude?

The International Space Station has an altitude of 400km. Because of it's low altitude, satellites deployed from the ISS can expect to last about 9 months under typical conditions.

By raising to 500km, Spire expects these Lemur-2 satellites to last about 2 years.

Cygnus CRS OA-5 begins the de-orbit process where it falls back to Earth and burns up in the atmosphere.

25 November 2016

