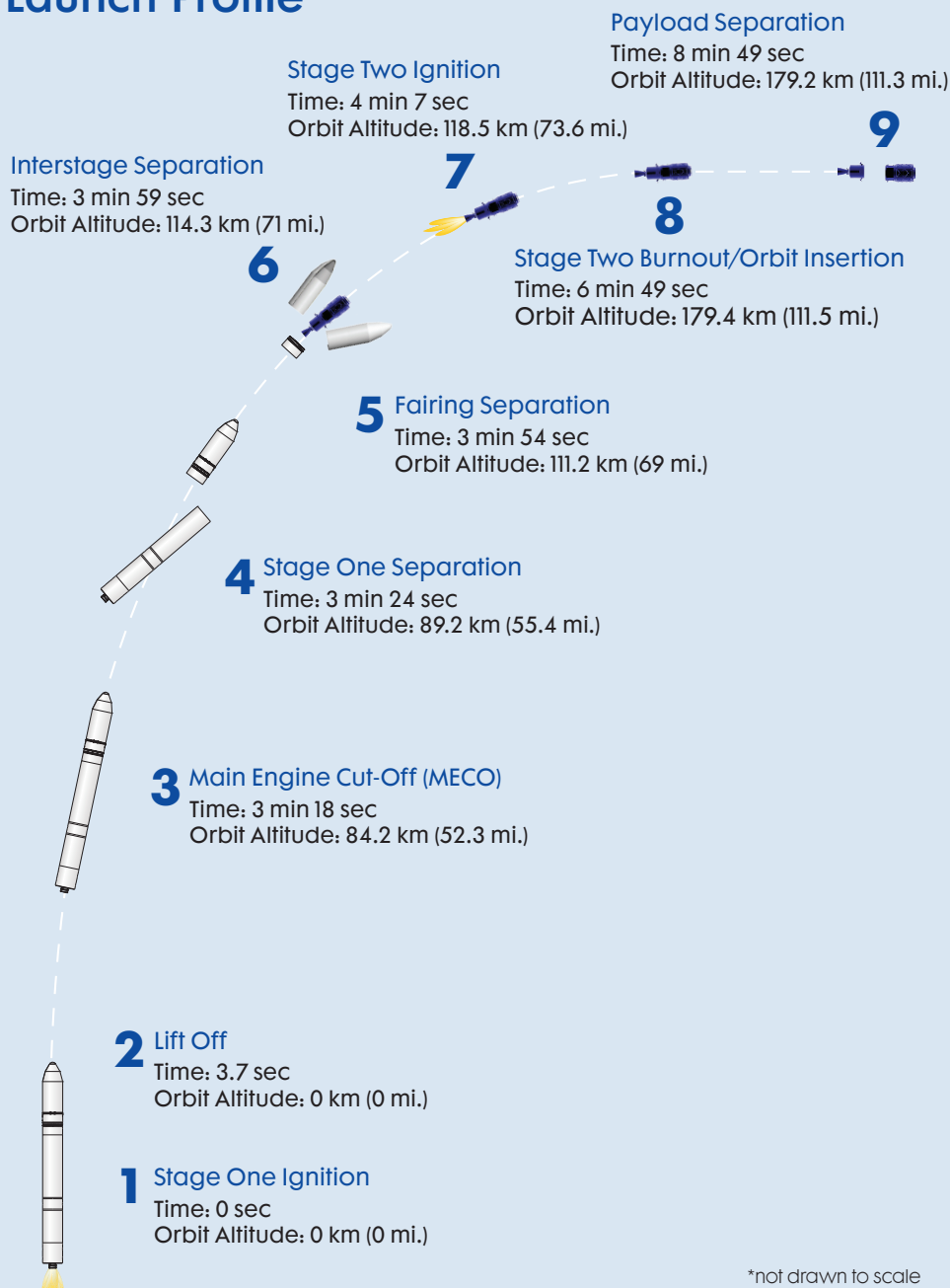


# NG-17 Mission

Delivering Cargo to the International Space Station

## Launch Profile



## Mission Parameters

**Launch Vehicle:**  
Antares 230+

**Cargo Spacecraft:**  
Cygnus

**Launch Site:**  
MARS Pad 0A,  
Wallops Island, Virginia

**Ascent Cargo Mass:**  
Up to 3,729 kg (8,200 lb.)

**Descent Cargo Mass:**  
Up to 3,729 kg (8,200 lb.)

**Initial Orbit Altitude:**  
172 km x 317 km

**Inclination:**  
51.64°

**Transit to Station:**  
Two Days

**Duration at Station:**  
Up to 100 Days Berthed  
Up to 30 days on orbit

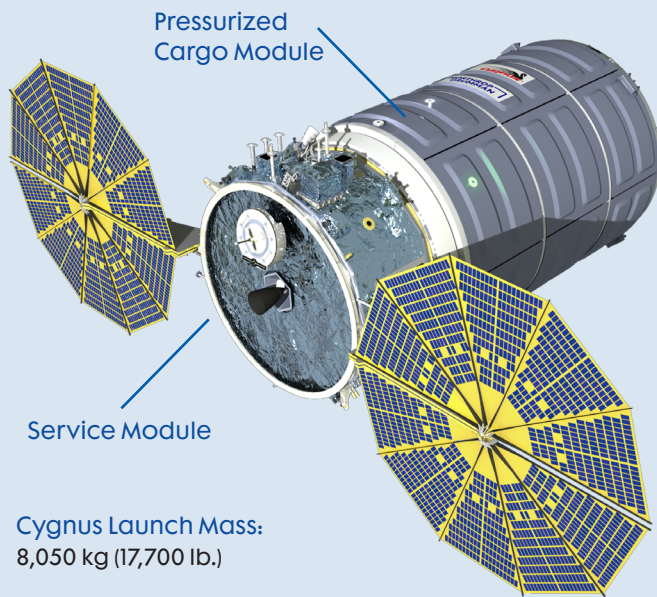
## Mission Description

For the NG-17 mission, the Cygnus spacecraft will deliver more than 3,700 kg (8,200 lb.) of cargo to the space station. Cygnus is comprised of two primary components, the Pressurized Cargo Module and the Service Module. In keeping with company tradition, each spacecraft is named after an important figure in the aerospace industry. Northrop Grumman is honored to name the NG-17 Cygnus

spacecraft after former astronaut and renowned climate scientist Piers Sellers. The S.S. Piers Sellers will be launched into orbit using an Antares 230+ rocket from Virginia Space's Mid-Atlantic Regional Spaceport (MARS) Pad 0A on Wallops Island, Virginia. Northrop Grumman will once again load critical cargo into Cygnus 24 hours before the scheduled launch.

Upon arrival at the International Space Station, the cargo will be unloaded from Cygnus. While berthed with the station, the S.S. Piers Sellers will perform its first re-boost service for the station, a new capability for the Cygnus spacecraft. Once its mission has been completed, Cygnus will perform a safe, destructive reentry into Earth's atmosphere over the Pacific Ocean.

### Cygnus Spacecraft



**Cygnus Launch Mass:**  
8,050 kg (17,700 lb.)

**Propellant Mass:**  
800 kg (1,764 lb.)

**Ascent Cargo Mass:**  
Up to 3,729 kg (8,200 lb.)

**Pressurized Volume:**  
27 m<sup>3</sup>

**Height:**  
6.39 m (21 ft.)

**Power Generation:**  
2 fixed wing UltraFlex™ solar arrays,  
ZTJ gallium arsenide cells

**Descent Cargo Mass:**  
Up to 3,729 kg (8,200 lb.)

### Antares Launch Vehicle



**Diameter:**  
3.9 m (12.8 ft.)

**Height:**  
42.5 m (139.4 ft.)

**Mass:**  
290,000 - 310,000 kg  
(639,341 - 683,433 lb.)

**Cygnus Advanced  
Maneuvering Spacecraft**

**Stage 2**  
Northrop Grumman  
CASTOR® 30XL solid motor  
with thrust vectoring

**Stage 1**  
Liquid oxygen/kerosene  
fueled

Northrop Grumman  
responsible for system  
development and  
integration

Core tank designed and  
verified by KB Yuzhnoye  
(Zenit-derived heritage)

Core tank production by  
Yuzhmash

Two Energomash RD-181  
engines each with  
independent thrust  
vectoring