

# NASA'S COMMERCIAL CREW PROGRAM MISSION OVERVIEW

# NASA's SpaceX Crew-6



NASA and SpaceX are gearing up to launch a new crew on an American rocket and spacecraft to the International Space Station. NASA's SpaceX Crew-6 will launch NASA astronauts Stephen Bowen, mission commander, and Warren "Woody" Hoburg, pilot. UAE (United Arab Emirates) astronaut Sultan Alneyadi and Roscosmos cosmonaut, Andrey Fedyaev will join as mission specialists.

While aboard the microgravity laboratory, the astronauts will perform science investigations, technology demonstrations, and maintenance activities.

The international crew of four will fly aboard the SpaceX Dragon Endeavour spacecraft and will launch on a new Falcon 9 booster. The mission will lift off from Launch Complex 39A at NASA's Kennedy Space Center in Florida. The crew will spend several months aboard station before returning to Earth in the fall of 2023.

The flight is the sixth crew rotation mission with SpaceX to station, and the seventh flight of Dragon with people as part of NASA's Commercial Crew Program.



## LAUNCH VEHICLE

### **SpaceX Falcon 9 Rocket**

HEIGHT: 229.6 ft

DIAMETER: 12 ft

PROPELLENT: LOX (liquid oxygen) and rocket grade kerosene (RP-1)

PROPULSION: 9 SpaceX Merlin engines – 190,000 lbf each

LAUNCH LOCATION: Launch Complex 39A at NASA's Kennedy Space Center in Florida

Falcon 9 will launch Dragon from historic Launch Complex 39A. It will accelerate Dragon to an orbital velocity of 17,500 mph prior to spacecraft separation and rendezvous, and docking with the International Space Station. This will be the first mission for this Falcon 9 booster.



## **SPACECRAFT**

### **SpaceX Dragon**

HEIGHT: 26.7 ft

DIAMETER: 13 ft

VOLUME: 328 ft3

**CREW CAPACITY:** Up to seven

RETURN: Splashdown-based water return off the coast of

Florida

The Crew-6 mission will fly aboard the Dragon Endeavour. The spacecraft previously flew Demo-2, Crew-2, and Axiom Mission 1 flights to and from the space station. As part of the refurbishment process, teams installed new components, including the heat shield, nosecone, trunk and all forward bulkhead and service section Draco engines. These critical hardware components help the spacecraft withstand reentry heat, support docking and cargo space, and provide steering and thrust to the spacecraft. Previously flown components include pod panels from a previous human spaceflight mission.



## MEET CREW-6

# Stephen Bowen COMMANDER

Hometown: Cohasset, Massachusetts Previous Missions: STS-126, STS-132 and STS-133





# Warren "Woody" Hoburg

Hometown:
Pittsburgh, Pennsylvania
Previous Missions:
First Mission

#### Sultan Alneyadi MISSION SPECIALIST

Hometown: Um Ghafa, Abu Dhabi Previous Missions: First Mission





## Andrey Fedyaev MISSION SPECIALIST

Hometown: Serov, Sverdlovsk Previous Missions: First Mission

# BEHIND THE DESIGN



Sailing across the Crew-6 patch, the ship represents both our destination, the International Space Station, and the vessels that countless explorers have steered into the unknown. The station anchors us on the dawn of missions to the Moon and Mars. The ship's sail, a symbol of the 2012 cosmonaut class, has relative radii matching those of the Earth, the Moon, and Mars. The Draco constellation represents NASA's Commercial Crew Program and shares a name with the thrusters that maneuver our Dragon spacecraft. The ship's Dragon figurehead looks to the future as we also look back at Earth, grateful for the tireless hours of all who support our mission.

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