Mission Overview

Boeing’s Commercial Crew Transportation System, called the CST-100 Starliner, is a full service orbital crew transportation vehicle. It provides all elements needed to transport crew and cargo to and from low Earth orbit destinations, including crew training and mission planning, spacecraft and launch vehicle assembly, integration and testing and crew and cargo recovery. The goal is to provide safe, reliable and cost-effective access to space, beginning with missions to the International Space Station and with NASA as the flagship customer. In 2014, Boeing was awarded up to $4.2 billion by NASA to build, test and fly the Starliner. The contract includes six service missions as well as an uncrewed and crewed flight test to the space station.

Atlas V Launch Vehicle

Boeing designed the Starliner spacecraft to be compatible with a variety of launch vehicles. The United Launch Alliance (ULA) Atlas V rocket was chosen to launch the initial Starliner test flights and missions because of its unparalleled safety and reliability record. The Atlas V has flown 80 times to-date, delivering high-value, high-priority payloads to space with 100% mission success. Starliner will launch atop an Atlas V from Space Launch Complex-41 at Cape Canaveral, FL. The Atlas V will propel Starliner through the atmosphere and accelerate it to near-orbital trajectories until about 15 minutes after liftoff, when the Centaur upper stage separates from Starliner, sending the spacecraft on its way to the International Space Station.
The Starliner was designed to accommodate seven passengers, or a mix of crew and cargo. The spacecraft has an innovative, weldless structure and is reusable up to 10 times with a six-month turnaround time. It will be the only American-built capsule certified to land on land, thanks to its parachute and airbag systems. It is equipped with four launch abort engines, and is capable of conducting a safe orbit during all mission phases. It also will fly and dock autonomously.
Integrated Testing

Developing a safe human-rated orbital transportation system takes both time and meticulous attention to detail throughout every phase of the program. Because space is an unforgiving environment, we place a great deal of emphasis in testing our systems on the ground before flight. Testing began at the component level and moved to the subsystem and integrated system level, to include structures, loads, shock, environmental, landing and propulsion system tests.

Path Forward
Did you know there are more than 330 experiments taking place every month on board the International Space Station? They touch nearly every science discipline from astrophysics and atmospheric observations to robotics, biology and medicine. For Starliner service missions to the station, the spacecraft will carry up to four NASA or NASA-sponsored crew members. It also will carry up more than 220 pounds of time-critical research, such as cells and living samples, enabling NASA to increase research that benefits life on Earth and prepares us for missions to deep space.

U.S. Suppliers

The program’s economic impact is felt across the U.S., with more than 400 supplier companies in 38 states.

More Information:
Learn more at www.boeing.com/starliner. Follow along on Twitter @BoeingSpace, Instagram @Boeing and Facebook @Boeing.

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Astronauts Flying on the Starliner

By transporting astronauts to and from the International Space Station safely, reliably and affordably from U.S. soil, Boeing’s Starliner will ensure NASA and the United States remain a leader in space exploration. For the first test flight, the Starliner will carry Boeing astronaut Chris Ferguson and NASA astronauts Mike Fincke and Nicole Mann. The first mission will carry NASA astronauts Suni Williams, Josh Cassada and international partner astronauts. The future holds passenger flights to and from other low Earth orbit destinations, carrying international and corporate astronauts, scientists, researchers, educators and tourists.