Dream Chaser® Orbital Spacecraft

Crewed Dream Chaser

Dream Chaser®

Credit: NASA

SNC SIERRA NEVADA CORPORATION Space Systems

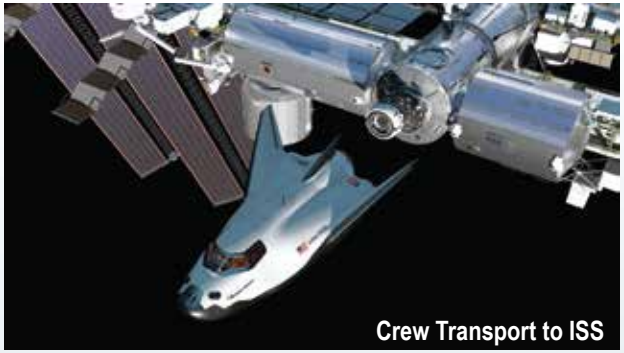
About NASA's Commercial Crew Program

With the retirement of the Space Shuttle Program in 2011, America has no way to transport astronauts to the International Space Station (ISS). NASA is investing financial and technical resources to stimulate efforts within the private sector to develop a safe, reliable, and cost-effective space transportation capability. Sierra Nevada Corporation (SNC) has been engaged in NASA's Commercial Crew Program for 5 years with more than $360M invested by NASA, and is still executing milestones under the Commercial Crew Integrated Capability Space Act Agreement (SAA). The SAA has recently been amended to extend through March 2016, introducing Milestone 41, Design Analysis Cycle-6 Closeout Review – demonstrating the advancement of the Dream Chaser® Space System design from a Preliminary Design Review (PDR) level of maturity toward a Critical Design Review (CDR) level.

About SNC and the Dream Chaser® Space System

SNC is a privately held company in business for more than 50 years, providing space systems for over 25 years. SNC has been a proud partner with NASA on missions to seven planets in the solar system, including 12 missions to Mars. Our commercial crew vehicle, the Dream Chaser®, looks similar to the space shuttle, but is much smaller as it does not have to carry large cargo to the ISS. Dream Chaser is a reusable lifting-body spacecraft capable of crewed or uncrewed missions carrying up to seven crew and critical cargo to low-Earth orbit. The spacecraft launches vertically atop a United Launch Alliance Atlas V rocket and returns gently to a runway landing, anywhere in the world. Dream Chaser's main propulsion system can be used for emergency abort during launch or for in-space propulsion, and uses unique, non-toxic motors that are safer and more environmentally friendly. SNC is the only company building a runway landing spacecraft as opposed to an Apollo-style capsule, and this type of vehicle has many unique advantages as shown in the figure to the right.

Attribute	Advantage
Low-g atmospheric	Protects sensitive experiments and impaired crew
All non-toxic fuels and no hazardous operations	Leads to cost, environmental, and operational benefits
Highly maneuverable vehicle w/on-board propulsion system	Allows for a wide range of missions for NASA and other customers
Ability to safely return crew to a runway landing at any time	Improves emergency operations
Significant reusable dry mass	Reduces costs
Standard commercial runway landing	Allows for immediate access to critical returning ISS experiments or distressed/ injured crew



First Flight Test
October 26, 2013

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