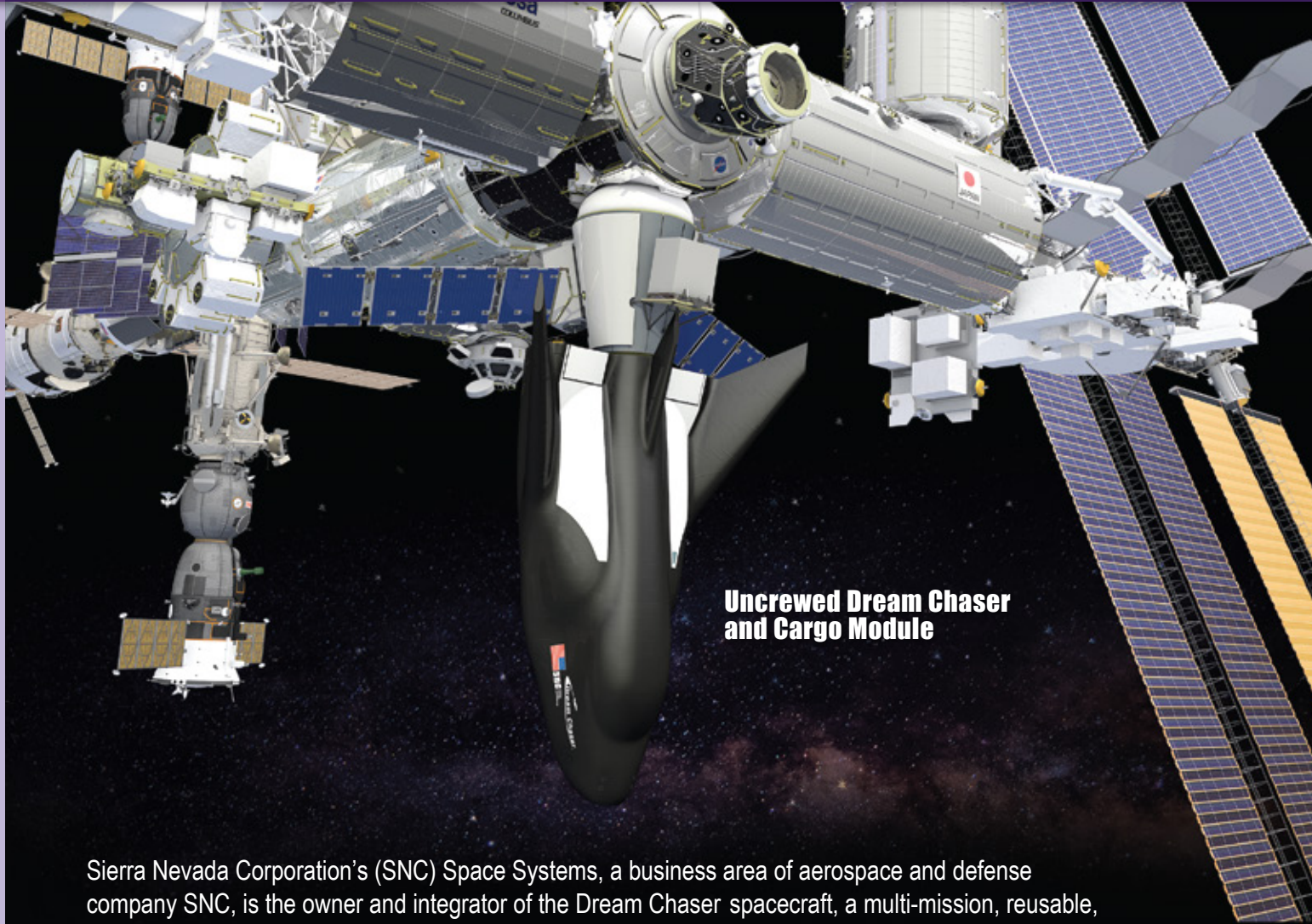


# Space Exploration Systems

## **Dream Chaser® Cargo System**



**Uncrewed Dream Chaser  
and Cargo Module**

Sierra Nevada Corporation's (SNC) Space Systems, a business area of aerospace and defense company SNC, is the owner and integrator of the Dream Chaser spacecraft, a multi-mission, reusable, Space Utility Vehicle (SUV) for uncrewed or crewed missions. The Dream Chaser Cargo System, the uncrewed mission variant, was selected by NASA to transport pressurized and unpressurized cargo to and from the International Space Station (ISS) with return and disposal services. The Dream Chaser Cargo System provides superior services for the global space community.



# Space Exploration Systems

## Dream Chaser® Cargo System

SNC's Dream Chaser spacecraft is the only low-Earth orbit, reusable, lifting-body vehicle capable of a runway landing and immediate access to cargo – preserving, continuing and improving upon 40+ years of space shuttle and lifting-body heritage into a mature 21st Century system. The Dream Chaser Cargo System builds upon more than 10 years of development maturation, including more than five years as part of the public-private partnership between SNC and NASA under the Commercial Crew Program.

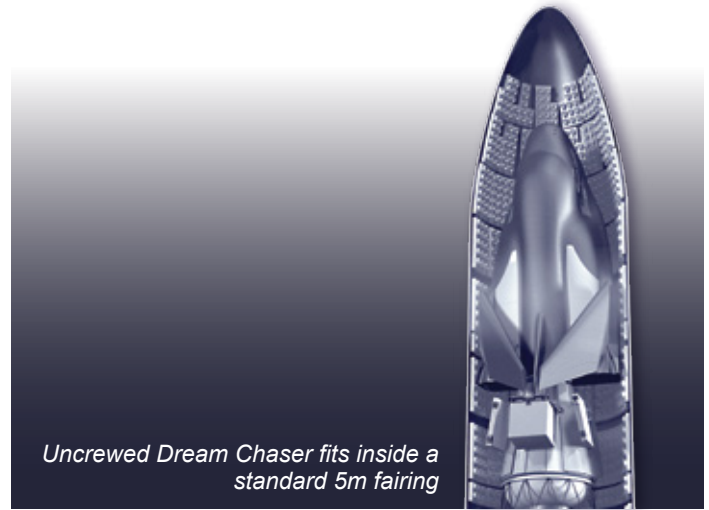
### Dream Chaser Cargo System Description

The innovative design of the uncrewed Dream Chaser, including foldable wings, allows the spacecraft to fit inside a standard fairing, ensuring NASA access to the ISS on a variety of compatible launch vehicles including the Atlas V, Ariane 5/6, Delta IV and H-III. The autonomous Dream Chaser Cargo System meets all of NASA's Commercial Resupply Services 2 (CRS2) mission requirements for pressurized and unpressurized cargo delivery, disposal and accelerated return. In early 2016, SNC was awarded a contract to deliver a minimum of six missions to the ISS under CRS2. The vehicle is designed for high reusability, reducing overall cost and providing rapid turnaround for re-flight opportunities.

The advantages of the Dream Chaser spacecraft extend well beyond ISS resupply. The spacecraft affords opportunities for continued partnership with ISS member nations through existing and expanding mutual agreements. These advanced development opportunities include: servicing for future space stations; satellite servicing/deployment and retrieval; orbital debris removal and serving as a test bed for exploration technologies and hypersonic flights.

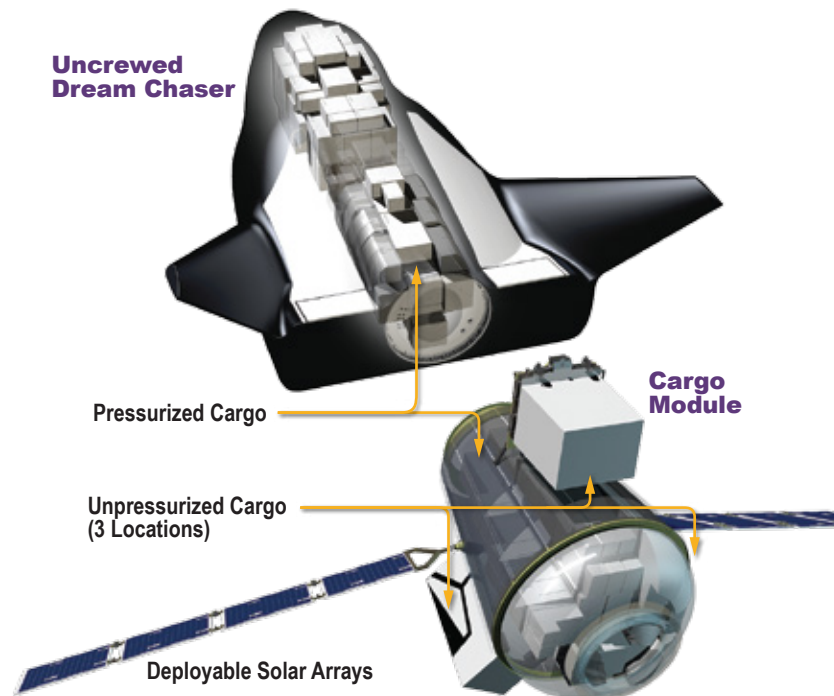
### Dream Chaser Cargo System Features

- Reusable, lifting-body spacecraft with attached, disposable cargo module
- Launches inside a standard 5m fairing, allowing for easy adaptation for multiple launch providers
- Transports 5,500 kg of pressurized/unpressurized upmass
- Dual downmass capability provides cargo disposal and accelerated return of cargo and science on every flight
- Low-g entry and gentle runway landing protects sensitive payloads from the stressful entry environment experienced by alternate vehicle concepts
- Non-toxic, non-hypergolic propulsion and fluids system allow late cargo loading and safe/rapid access to the vehicle and its payloads
- Responsive capability with immediate access to payloads upon convenient runway landing, with the majority accessible in just hours and all cargo accessible within 24 hours



Uncrewed Dream Chaser fits inside a standard 5m fairing

The Dream Chaser Cargo System is capable of concurrent pressurized and unpressurized cargo delivery, exceeding all NASA cargo requirements in a single launch.



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