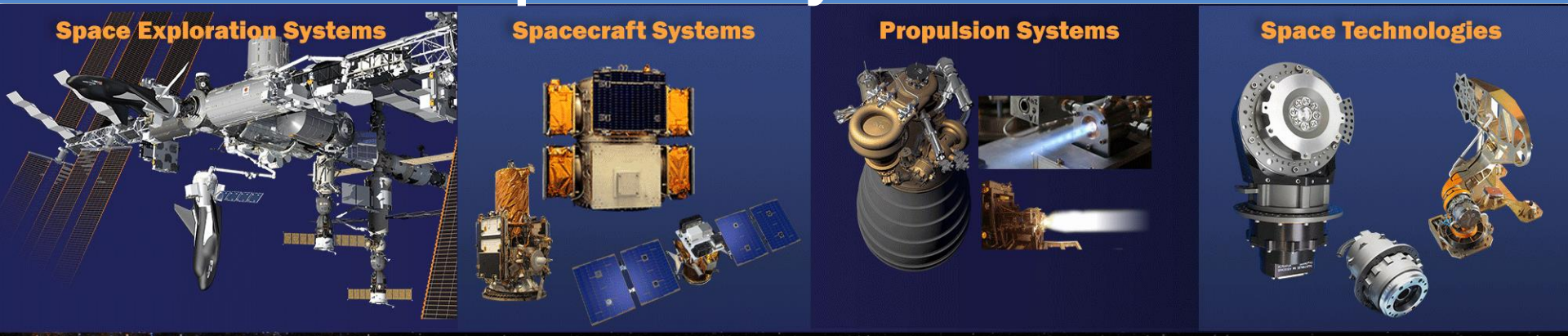
Space Accessibility Through the Dream Chaser Space Utility Vehicle

SIERRA NEVADA CORPORATION



UNISPACE+50: High Level Forum

Space as a Driver for Socioeconomic Sustainable Development

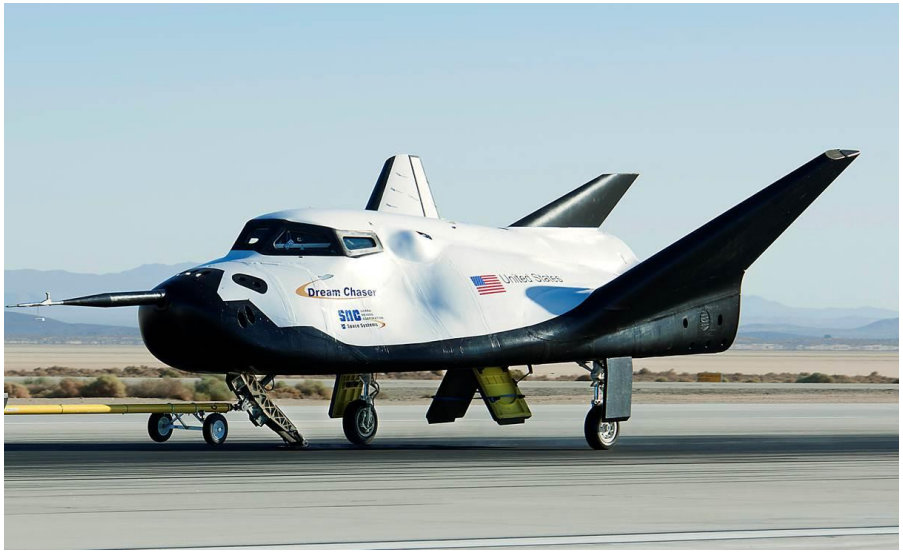
John Roth

VP, Strategy & Business Development

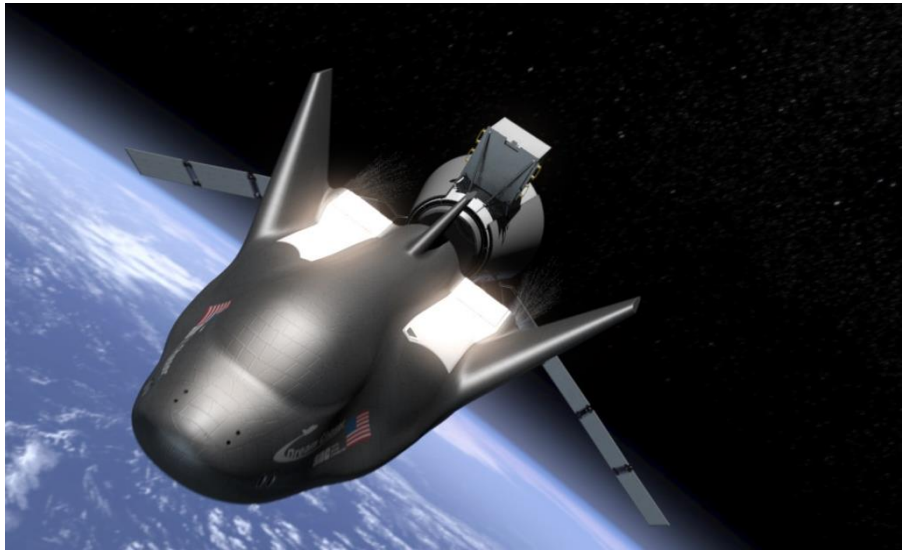
Dream Chaser Space Vehicle

SIERRA NEVADA CORPORATION

- **Crewed or uncrewed transportation to and from Low Earth Orbit (LEO)**
- **Capable of Landing at International airports/spaceports**
- **Designed to launch on multiple launch vehicles**
- **Commercially Owned Vehicle that can Provide all Countries Access to Space for:**
  - **Economic Development**
  - **Educational Development**



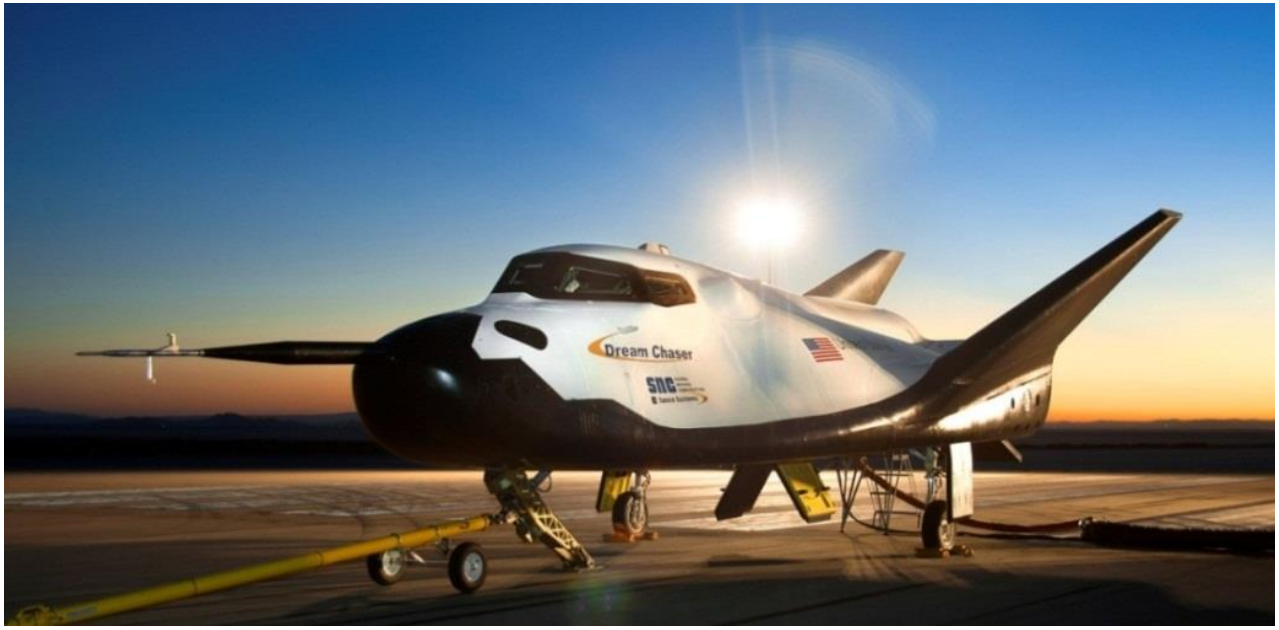
Crewed Dream Chaser

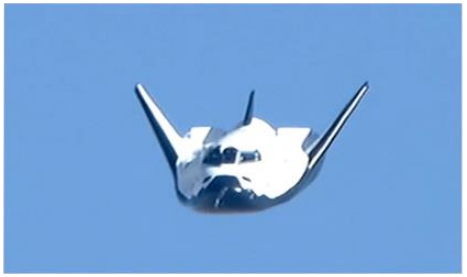


Uncrewed Dream Chaser

Dream Chaser®

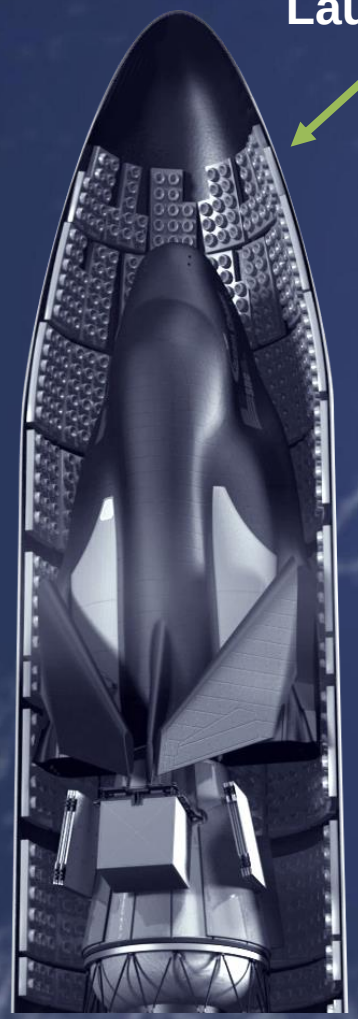
Dream Chaser Development Status





- **Public-Private Partnership with NASA Co-funded by SNC**
  - **Four NASA Contracts**
- **Built & Flew a Full Scale atmospheric Engineering Test Article (ETA) Vehicle in October 2013**
- **Proposed both for the NASA's Cargo Resupply Services 2 (CRS2) Program**
- **First Orbital Vehicle Under Construction**
  - **First Orbital Flight in 2019**

Uncrewed Dream Chaser



Cargo Module

Launch System

Uncrewed
Dream Chaser Vehicle

- Wings fold for launch to fit in standard fairings
- Cargo Module Provides for Pressurized and Unpressurized Payloads
- Solar panels provide power for extended duration flights

Dream Chaser Space Utility Vehicle

Customizable for A Variety Missions

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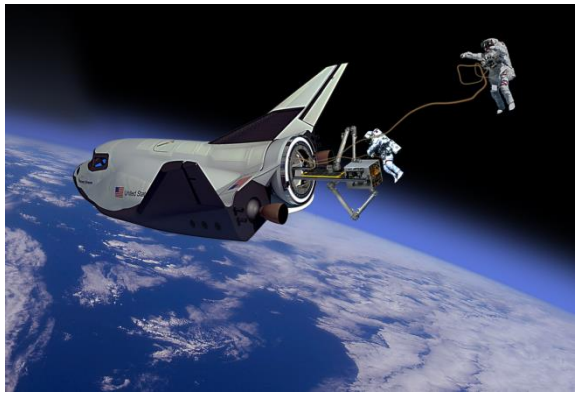
Space Servicing: *Working in Space*

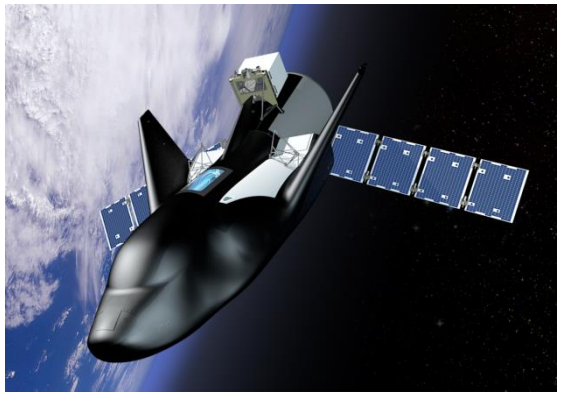


- Missions: Satellite Servicing, Deployment, Retrieval , Deorbit and Debris Removal
- Duration: 1-10 days
- Configuration: Crewed Dream Chaser Modified to Meet Unique Mission Needs

Extended Duration: *Discovering in Space*

- Mission: Microgravity Laboratory For In Situ Science and Technology Investigation
- Duration: Up to 28 days
- Configuration: Extended Duration Cargo Vehicle

Long Duration: *Observing from Space*



- Mission: Direct Observation Science Missions From LEO
- Duration: Up to 1 year
- Configuration: Long Duration Cargo Vehicle

Direct Partnerships Signed with International Space Agencies

SIERRA NEVADA CORPORATION

DLR

esa

JAXA

Agreement Objectives

- Cooperate and partner on the development of technologies, applications and missions for Dream Chaser based space systems that promote the goals of the Agency
- Engage with in-country government laboratories, commercial companies and universities to utilize their technologies where possible
- Design and create flight opportunities to qualify space technologies and execute priority crewed or uncrewed missions

The Global Project

Opening Space to Non-Space Fairing Nations

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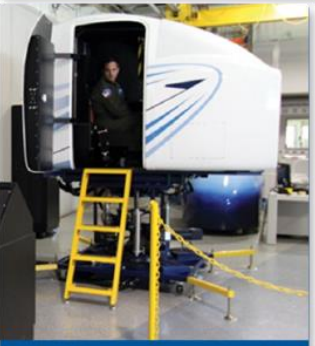
Tailored Missions to Meet the Customer's Needs and Priorities

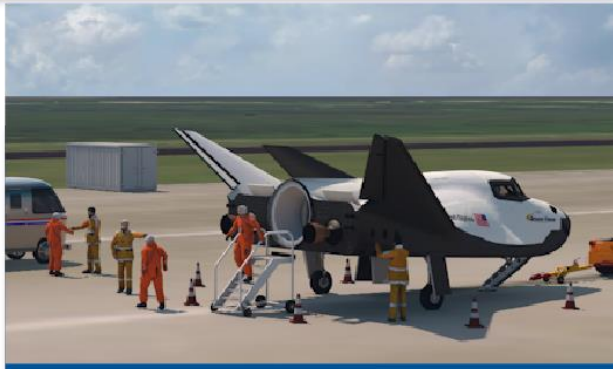


Astronaut and Mission Control Training

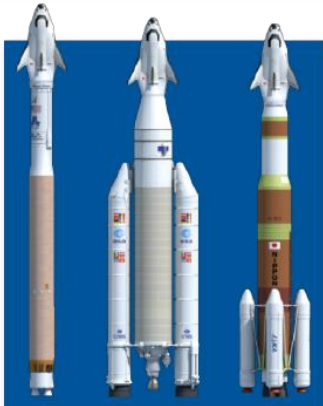
Crew-only Configuration

Crew and Science Configuration

Launch, Ground, and Mission Support



Landing Site Selection Flexibility



Launch Flexibility on Other Launch Vehicles

- **Turn-key program that offers the benefit and pride of a spaceflight program without the time and financial burden of developing the necessary infrastructure**
- **Offers the Dream Chaser vehicle and the supporting services for customized missions to low-Earth orbit, including the selection of desired landing site**

Dream Chaser:
Enhancing International Access to Space for Scientific and Commercial Endeavors