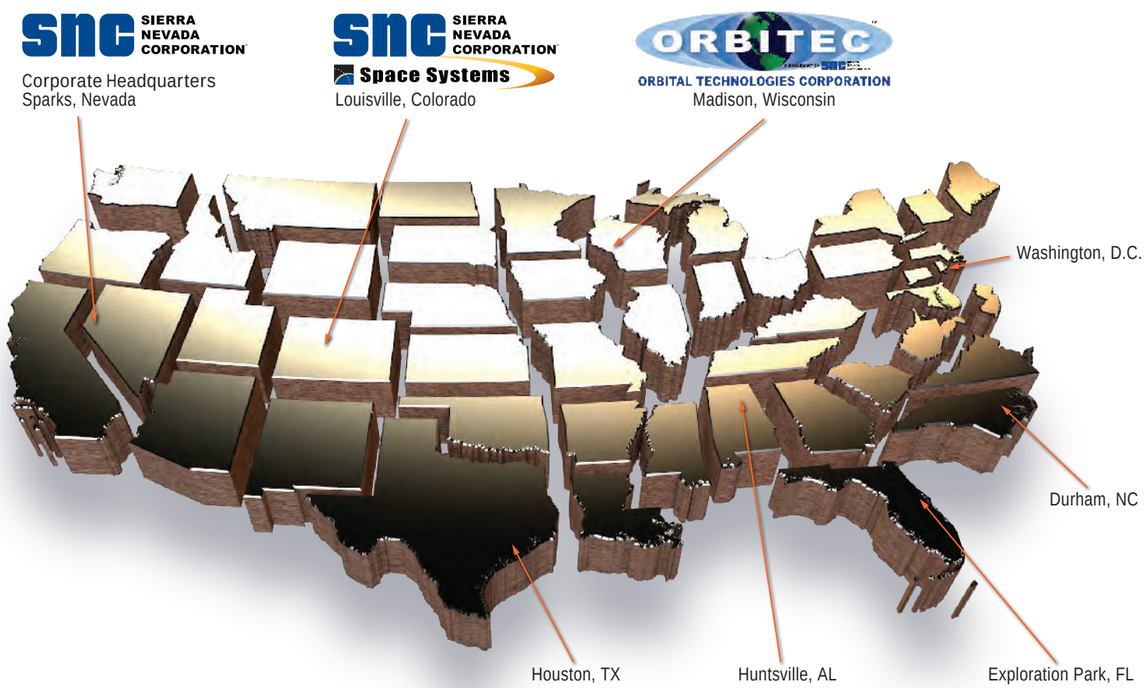
Space Systems

Nationwide Locations

Sierra Nevada Corporation's Space Systems based in Louisville, CO, has nearly 170,000 sq. ft. dedicated to space systems design and manufacturing. The facility can support all levels of subsystem and system-level testing, including environmental testing, with multiple fully equipped thermal/vacuum chambers, electromagnetic compatibility (EMC) testing, a large area pulsed solar simulator (LAPSS), and 3-axis vibration testing. In addition, this facility houses the Louisville Satellite Operations Center (LSOC), used to monitor SNC's orbiting spacecraft providing launch, on-orbit and anomaly support to customers.

Rocket design and testing is performed by ORBITEC, SNC's wholly owned subsidiary located in Madison, WI. The Durham, NC, facility designs and builds many of our space technology products and has achieved 100% on time product delivery for the last two years in a row. The Washington D.C., Huntsville, AL, and Houston, TX, offices do not host manufacturing facilities, but allow us to stay connected with our local customers.



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4/08/2015

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SIERRA NEVADA CORPORATION

Space Systems Overview

Sierra Nevada Corporation

International Partnerships

Supporting Missions Throughout the Solar System

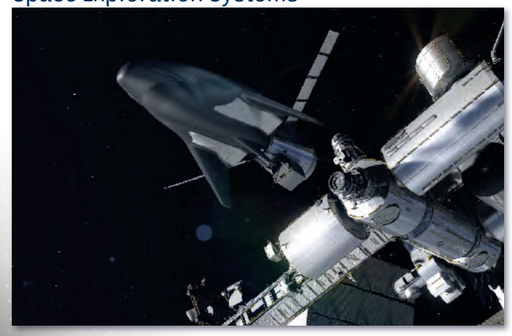
Sierra Nevada Corporation's (SNC) Space Systems designs and manufactures advanced spacecraft, satellite bus solutions, mechanisms and components, and unique propulsion technologies for civil, commercial and national security applications. With over 25 years of spaceflight heritage supporting over 450 missions, SNC is a trusted provider to the most critical military, scientific and exploration missions undertaken by both United States and international customers.

SNC has partnered with NASA on over 70 science missions throughout the solar system including critical hardware on successful misions such as Curiosity, New Horizons, and Solar Probe Plus. SNC hardware is launched into space every 3 weeks on average.

SNC is home to an active small satellite production line, providing commercial, government, and international customers satellites at an affordable cost. In addition to developing customized spacecraft solutions to meet customer needs, we also have a set of standard products that can be readily tailored for rapid deployment.

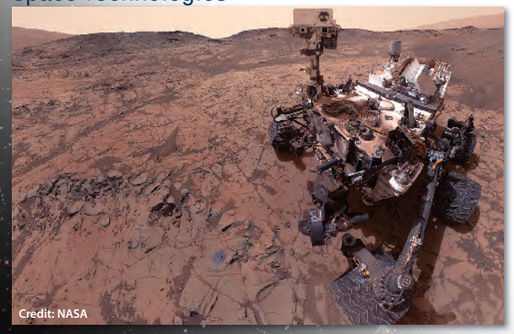
SNC is the owner and operator of the *Dream Chaser*® spacecraft, a reusable lifting-body spacecraft providing reliable and affordable crew and cargo transportation services to low-Earth orbit.

Space Exploration Systems

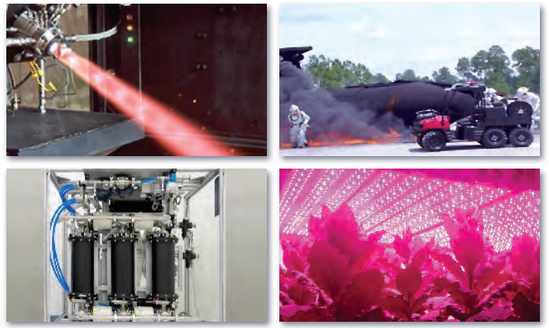


Spacecraft Systems

Space Technologies


Credit: NASA

ORBITEC®



SIERRA NEVADA CORPORATION
Space Systems

Space Systems Overview

SNC's Space Systems Product Lines

From Earth Observation to Interplanetary Exploration

Space Exploration Systems

SNC's Dream Chaser® orbital spacecraft is the world's first space utility vehicle. The lifting-body spacecraft is highly reusable, designed to support crew and cargo transportation to low-Earth orbit and other missions such as observation, servicing, science and manufacturing - meeting the needs of customers around the world. The Dream Chaser "Dream Team" spans 32 states, 9 NASA centers, 9 universities, and 10 international organizations.

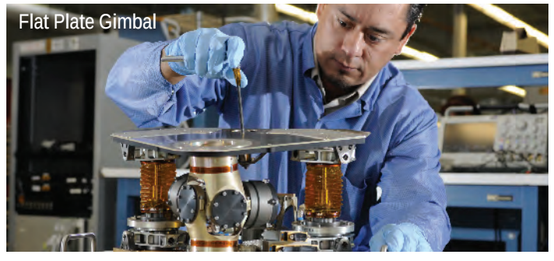

Dream Chaser® Orbital Spacecraft
Cargo System Solution for CRS2

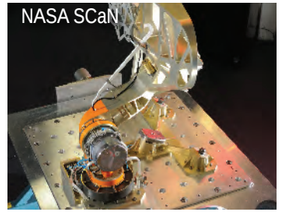
A variant of the Dream Chaser Space System, the Dream Chaser Cargo System builds upon more than 10 years of development maturation, including 5 years resulting from the public-private partnership between SNC and NASA.

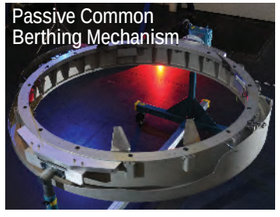

Dream Chaser testing at Armstrong Flight Research Center

Space Technologies

SNC' Space Technologies product line has been delivering complex spaceflight systems, subsystems and components for over 25 years. We have achieved 100% on-orbit success on over 4,000 systems and products used on over 450 missions. Our suite of products range from solar arrays and power systems to antenna and instrument pointing systems, robotic docking systems, planetary landing and in-situ instrument systems, release mechanisms and thermal control devices.


Flat Plate Gimbal


NASA SCaN


Passive Common Berthing Mechanism


High Output Paraffin Actuator


Bi-Axis Antenna Gimbal

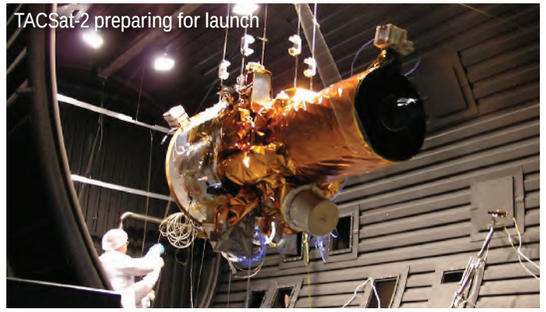
Spacecraft Systems

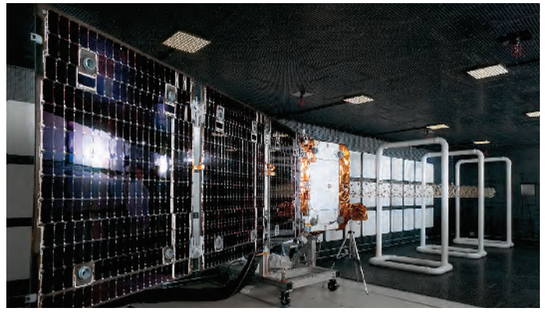
SNC's Spacecraft Systems product line operates a high-throughput, small-satellite production line which launched the first six operational ORBCOMM Generation 2 commercial satellites in July 2014, with an additional 11 launching in late summer 2015. Recently, SNC was competitively selected to develop and build STPSat-5 for the Department of Defense. Prior work includes innovative and award-winning satellite programs in the areas of Earth observation, communications, space science and technology demonstrations.


Credit: SpaceX


Credit: SpaceX

OG2 satellites on ESPA ring before July 2014 launch

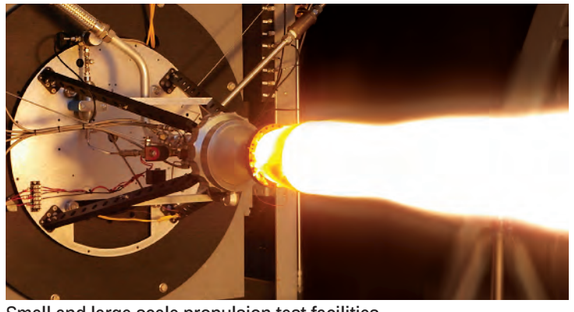

TACSat-2 preparing for launch



OG2 spacecraft fully deployed in Radio Frequency Chamber

ORBITEC®

Orbital Technologies Corporation (ORBITEC®) is a subsidiary of SNC. ORBITEC's capabilities include decades of experience in strong liquid and hybrid rocket propulsion systems, human spaceflight life support and thermal systems, automated life science systems and fire suppression systems.



Small and large scale propulsion test facilities


Credit: NASA

VEGGIE plant growth unit testing on ISS