

FOR IMMEDIATE RELEASE

Sierra Nevada Corporation Selected to Develop Manned Deep Space Habitat Design Under NASA NextSTEP-2

SPARKS, Nev. (August 10, 2016) – [Sierra Nevada Corporation \(SNC\)](#) has been selected to develop a deep space, long-duration, human habitat design and prototype for NASA. The partnership, under NASA's Next Space Technologies for Exploration Partnerships-2 ([NextSTEP-2](#)) Broad Agency Announcement, Appendix A, will allow SNC and its partners to use their experience to design a complete habitat system architecture and build a full-scale prototype for testing and evaluation. NASA's NextSTEP-2 public-private partnerships support the journey to Mars, as well as the commercial development of low-Earth orbit (LEO) space by focusing on sustainable human habitats for long-duration spaceflight missions.



Concept image of SNC's habitation prototype based on its Dream Chaser cargo module.

Advancing Deep Space Missions

SNC's concept is based on multiple modular components, leveraging both SNC's internal expertise and external partners to create the most capable habitat. "This program is a perfect opportunity to showcase the heritage of our 25 plus years supporting space missions," said [Mark Sirangelo](#), corporate vice president of SNC's Space Systems business area. "This habitat will combine our experience in space technologies, satellite systems, propulsion and environmental control systems from our subsidiary ORBITEC, as well as our work with the *Dream Chaser*[®] spacecraft under NASA's Commercial Crew Program (CCP) and Cargo Resupply Services 2 (CRS-2) contract to support the International Space Station. The NextSTEP-2 habitat elevates our role as a prime integrator in the design of effective and efficient deep space habitats."

Key Habitat Design Elements

The basis of SNC's design stems from the Dream Chaser Cargo Module being developed for NASA CRS-2 missions. The Dream Chaser spacecraft will return home after LEO missions but the Cargo Module will remain on-orbit to be integrated with other components, including an advanced electric propulsion module for transferring the system to lunar orbit.

The project details will depend on final contract negotiations, however SNC's proposed habitat design also includes:

- Significant pressurized volume for long-duration human activity
- Docking capability compatible with NASA's Orion spacecraft, as well as other systems
- Environmental control and life support systems
- Airlocks for astronaut Extravehicular Activities (EVA)
- Crew health monitoring and support systems
- Propulsion systems for transport and maneuverability

SNC's wholly-owned subsidiary, Orbital Technologies Corporation (ORBITEC) was selected as a part of the first NextSTEP awards in 2015 for the development and demonstration of hybrid life support systems, including in-space food growth. ORBITEC's strong knowledge of environmental control and



MEDIA CONTACT:
Krystal Scordo
(O) 720-407-3192
media.ssg@sncorp.com

BioProduction systems will be crucial in creating a viable long-term habitat and will help overcome sustainability obstacles. SNC is also teaming with [Aerojet Rocketdyne](#) to integrate its PowerTrain™ Solar Electric Propulsion (SEP) system designed to deliver power from the solar arrays to the thrusters on spacecraft, as well as [NASA Langley Research Center](#) to utilize its radiation analysis systems and airlock technology.

About Sierra Nevada Corporation

Sierra Nevada Corporation (SNC) provides customer-focused technology solutions in the areas of aerospace, aviation, electronics and systems integration. SNC has been honored as one of “The World’s Top 10 Most Innovative Companies in Space,” and one of America’s fastest growing companies. SNC’s Space Systems business area based in Louisville, Colorado, designs and manufactures advanced spacecraft, space vehicles, rocket motors and spacecraft subsystems and components for the U.S. Government, commercial customers, as well as for the international market. SNC has more than 25 years of space heritage, participating in more than 450 successful space missions and delivering 4,000+ systems, subsystems and components around the world.

For more information on SNC visit www.sncorp.com and follow us at Facebook.com/SierraNevCorp and Twitter @SierraNevCorp. Sierra Nevada Corporation and SNC are trademarks of Sierra Nevada Corporation.

###