FOR IMMEDIATE RELEASE – August 2, 2017

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Local Team to Live-Stream Eclipse Footage as Part of NASA National Eclipse Ballooning Project

Las Cruces, NM – A team of students and faculty from the New Mexico Space Grant Consortium (NMSGC) at New Mexico State University will launch a high-altitude balloon on August 21st as part of a nationwide, NASA-sponsored project to live-stream aerial video footage of the "Great American Eclipse."

The New Mexico team will launch the roughly 8-foot-tall, helium-filled balloon, which will carry a video camera and other equipment to an altitude of up to 100,000 feet, at approximately 11 a.m. at the Homestead National Monument of America in Beatrice, Nebraska. Live footage from the camera will be available for public viewing on NASA's website, https://www.nasa.gov/eclipselive.

As part of the Eclipse Ballooning Project, 55 teams from across the country will live-stream footage of the total solar eclipse, in which the moon will entirely block the sun for approximately two minutes on a path progressing from the Pacific coast in Oregon (1:17 p.m. PCT) to the Atlantic coast in South Carolina (2:47 p.m. EST).

According to Dr. Paulo Oemig, NMSGC senior research scientist, the project is unprecedented since it marks the first time that high-altitude video footage of a total solar eclipse has been broadcasted live. "Live-broadcasting while tracking an eclipse across the United States has never been done," Dr. Oemig said.

In addition to a video camera, the team's balloon will carry a GPS tracking system, a camera to capture still images of the eclipse, and a secondary payload consisting of a heat exchanger with wavy channels designed to increase the efficiency of propellants. Once the eclipse has passed, the balloon will pop and the payloads will parachute to Earth.

The New Mexico team will also be participating in the "Plug-and-Fly" microbiology balloon opportunity. This payload will help understand Space Biosciences researchers at NASA Ames Research Center how microbes behave near-space conditions. This research in the stratosphere will help NASA understand the nature of bacteria in the context of microbial life on Mars or other extreme environments.

“I hope that the data received from these experiments will allow for further advancements in the space community,” Norann Calhoun, chemical engineering undergraduate student and member of the team said.

The project presents an amazing hands-on learning opportunity for the students who are participating according to Dr. Oemig. “This project has helped me expand my resume and has furthered my knowledge of the space industry. I look forward to applying to jobs in the space sector when I graduate, so that I can continue on the wonderful path that the New Mexico Space Grant has opened for me,” Calhoun said.

Sten Hasselquist, astronomy doctoral student and team member added, “This is an outreach event of epic proportion. I am learning many practical real world skills that I can apply to future jobs. My participation in this project supported by New Mexico Space Grant will make me a more attractive job applicant and I will be able to continue my career as an astronomer.”

The project is sponsored by the NASA Science Mission Directorate and NASA’s Space Grant program, a national network that includes over 900 affiliates from universities, colleges, industry, museums, science centers, and state and local agencies belonging to one of 52 consortia in all 50 states, the District of Columbia and the Commonwealth of Puerto Rico.

The following NMSU students, faculty and staff are involved in the eclipse and heat exchange projects: Norann Calhoun, Sten Hasselquist, Dr. Paulo Oemig, Senior Research Scientist; Dr. Krishna Kota, Assistant Professor. For more information about the NM Eclipse Ballooning Project visit: http://nmspacegrant.com/eclipse/