NASA SSERVI: Merging Science and Human Exploration

*Brad Eugene Bailey¹, Kristina Gibbs¹, Gregory Schmidt¹

1. NASA

NASA's Solar System Exploration Research Virtual Institute (SSERVI) represents a close collaboration between science, technology and exploration, and was created to enable a deeper understanding of the Moon and other airless bodies. SSERVI is supported jointly by NASA's Science Mission Directorate and Human Exploration and Operations Mission Directorate. The institute currently focuses on the scientific aspects of exploration as they pertain to the Moon, Near Earth Asteroids (NEAs) and the moons of Mars, but the institute goals may expand, depending on NASA's needs, in the future. The nine initial teams, selected in late 2013 were funded from 2014 - 2019, have expertise across the broad spectrum of lunar, NEA, and Martian moon sciences. An additional four teams were selected in 2017.

The research includes various aspects of the surface, interior, exosphere, near - space environments, and dynamics of these bodies. In addition, SSERVI has ten International Partners which collaborate with US teams NASA anticipates additional team selections in mid 2019 from the 3rd SSERVI Cooperative Agreement Notice call for proposals. Calls for proposals are issued every 2-3 years to allow overlap between generations of institute teams, but the intent for each team is to provide a stable base of funding for a five-year period.

SSERVI's mission includes acting as a bridge between several groups, joining together researchers from:

1) scientific and exploration communities, 2) multiple disciplines across a wide range of planetary sciences, and 3) domestic and international communities and partnerships.

The SSERVI central office is located at NASA Ames Research Center in Mountain View, CA. The administrative staff at the central office forms the organizational hub for the domestic and international teams and enables the virtual collaborative environment. Interactions with geographically dispersed teams across the U.S., and global partners, occur easily and frequently in a collaborative virtual environment. This talk will consist of an overview of SSERVI's mission, current US teams and International Partners.

Keywords: Moon, Asteroids, Lunar, Exploration