

STORIES OF SPACE

PRESS RELEASE

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The STORIES of Space Project Selects Utah State University as Space Radiation Testing Partner

The STORIES of Space™ Project will explore the power of storytelling, inclusion in space and SD card technology

The STORIES of Space Project team is pleased to announce their partnership with Dr. JR Dennison, professor of physics at Utah State University, and Achal Duhoon, a PhD Physics student at Utah State University, to assist in the SD card testing experiment of the STORIES research project.

The [STORIES of Space project](#) has a twofold mission: first, to conduct valuable research for future commercial space missions; and second, to raise awareness and excitement for the future of space travel.

Executive Director Beth Mund and her team will be conducting several science experiments as part of the STORIES Project - one that will help examine electronic storage technologies for both our application on earth and in our future in space.

Principal Investigator, Katie Kempff welcomes this partnership with a university that has flown numerous payloads on the Aegis Aerospace Materials International Space Station Experiment (MISSE) platform.

“I’m looking forward to working with and learning from the experts at the USU physics department. This opportunity and partnership allows us to implement our research of both simulated and actual space SD card experimentation and apply our research to future space exploration applications,” Kempff said.

With the help of Dr. JR Dennison and Achal Duhoon, the STORIES project will be testing 60 SD cards before and after they are exposed to space for six months to understand the degree of performance between card manufacturers and determine ideal hardware.

“The materials physics group at Utah State University is uniquely qualified to participate in the STORIES project because USU runs a space environment testing facility which is

designed to measure materials properties of things that they build for space, like spacecrafts and components that fly to space like the SD cards we're going to be testing and flying for the STORIES of Space Project," Dennison said.

JR Dennison is a professor of physics at Utah State University, where he leads the Materials Physics Group. He has worked in the area of electron scattering for his entire career and has focused on the electron emission and conductivity of materials related to spacecraft charging for the last two decades. This has often emphasized studies of the electronic structure of highly disordered materials, with an emphasis on elemental carbon allotropes.

"At our USU lab, we have the capabilities to simulate the effects of the harsh space environment. Most people's impression of space is that there's nothing there.. it turns out that couldn't be farther from the truth, and by simulating things in a space environment, we can accomplish a lot more testing, a lot quicker, seeking to match the effects of a true space environment. Flight hardware that is going up to space and back in a controlled manner provides a gold mine for both the hardware and the *test methods* themselves." The materials physics department at USU has been testing materials in the lab for about 30 years, and we have a host of students working to help characterize things, write code, monitor instruments, analyze the data, etc.

Achal Duhoon is a PhD physics student at Utah State University currently working as a Research Assistant in the Materials Physics Group. His research goals involves developing instrumentation, methods and analysis to accurately simulate the space environment for testing radiation effects on space materials, electronics, and understanding cellular damage due to the synchronous radiation effects and microgravity on cardio and neurological cell clusters.

[STORIES of Space](#) submissions are currently OPEN and will be collected from **now through December 31, 2022**, then cataloged on SD cards as part of our payload test project scheduled to launch in 2023. The stories and SD cards will journey to space on an Aegis Aerospace payload, where they will be placed into low Earth orbit (LEO) for six months before returning to earth.

About Stories of Space™ (The STORIES Project)

Stories of Space™ (The STORIES Project) is an open-source project available to a global community of storytellers who wish to connect people to space. Driven by a team of scientists, researchers, communicators, and writers, The Stories of Space Project™ believes that a story can change the way we explore space. Selected Stories of Space submissions will be cataloged on SD cards (secure digital cards or a tiny flash memory card designed for high-capacity memory and various portable devices) scheduled to fly in 2023. The SD cards are part of a

payload test project flown by NASA on a MISSE satellite carrier, provided by Aegis Aerospace, a space and technology company that provides turn-key solutions to government and commercial customers in the space and defense industries. MISSE is a highly flexible, commercial facility owned and operated by Aegis Aerospace that is permanently installed on the external ISS truss near the solar arrays. For more information, and to submit a story, visit <https://www.storiesofspace.com/>

About the team

Beth Mund is an analog astronaut, CEO of Stellar Communications, former NASA communications officer, keynote speaker, space communicator and the Executive Director of The STORIES of Space Project.

Katie Kempff serves as the Principal Investigator for The STORIES of Space Project and is a freshman at the Massachusetts Institute of Technology studying Aerospace Engineering and Comparative Media Studies.

Bailey Striepling serves as the Project Manager for The STORIES of Space Project and is a senior at Marquette University studying Journalism, Business Administration and Public Relations.

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