

# I Dare You to Dream: USU Partners with NASA and Sen. Orrin Hatch for Live Feed from Space | CEHS

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Who better to ask about living in space than an astronaut orbiting the Earth in the International Space Station? More than 200 Utah State University GEAR UP high school and middle school students from across Utah got the chance to do just that during a live conversation with astronauts aboard the International Space Station this past May. GEAR UP (Gaining Early Awareness and Readiness for Undergraduate Programs) lives up to its acronym.

Credit, as well, goes to USU's Space Dynamics Laboratory which collaborated with U.S. Senator Orrin Hatch and NASA to make the live space conversation possible. Orbiting approximately 250 miles above Earth, space station Commander Peggy Whitson, who in April broke the record for the longest time spent in space by any American, and Flight Engineer Jack Fischer answered questions from middle and high school students during the live downlink transmission where students interacted in real time with the astronauts.

"If you could give advice to your 17-year-old self, what would it be?" asked Jason Shepherd, a student from Wendover High School.

Fischer replied with advice his father gave him: "I dare you to dream — the 'dream' part is finding the passion that lights a fire in your soul," Fischer said. "You have to define that for yourself. The 'I dare you' part is the hard work; no one will give it to you. If you don't work really, really hard, it's not going to happen. So define that dream... and then follow it with all you've got!"

Many of the students beamed with delight and open-mouthed wonder as they conversed with cosmonauts. Zayhetzi Nunez, a student at InTech Collegiate High School, asked, "What weird stuff have you seen in space?" As Whitson laughingly pointed at Fischer, he replied, "Everything! Sitting on the ceiling, eating pudding squeezed out onto your spoon like a gelatinous mountain — there are so many different opportunities for you to stretch your mind, re-define reality and just grow as a human."

Peggy Whitson is the commander of Expedition 51, and their five-person crew includes one French and two Russian astronauts. Whitson has commanded the International Space Station twice, and this mission made her the U.S. astronaut (male or female) with the most cumulative time in space at 665 days.

Whitson was asked what the astronauts do in their free time. "Looking out the window never gets boring!" she said. "We see a sunrise and a sunset every 45 minutes."

Fischer offered details about Whitson's role as commander when he was asked about how they handle emergencies in space. "We work most of the time as a team, but in an emergency, you need to have a boss, and that's our resident space-ninja Peggy, telling us what we need to do and where we need to go so that we can all get home safely."

When asked if the astronauts play musical instruments in space, Thomas Pesquet, French astronaut and aerospace engineer with the mission, floated past the screen playing a melody on his saxophone, much to the delight of the students, who laughed and cheered.

Another highlight was watching Fischer squeeze fruit punch out of a packet where it formed into balls as he drank it right out of the air. These spacewalkers clearly enjoyed entertaining, educating and inspiring their audience. They have a military command structure, and their engineering tasks and precision emergency responses are perfectly drilled. They conduct experiments in scientific fields they have studied for years. And to top it all off, they are eager to share their knowledge and pull everybody along in their milky wake.



"It's not every day you get to talk to an astronaut," said Adam Cox, a student at North Sanpete Middle School. "You think adults are all business—but I could see today how much fun the astronauts were having."

"I learned about taking the difficult road instead of the easy road," said Ashley Ortiz, also from North Sanpete. "The easy road might get it done faster, but it doesn't pay off in the same way."

Astronauts sacrifice time away from Earth and loved ones, as well as experiencing bone and muscle loss while studying the effects of long-term exposure of space on the human body. But they fought for the privilege of making that sacrifice through long years of study and training that most could not endure.

"Today was life-changing for these students," said Heather Hafen, a site coordinator with USU's GEAR UP program. Hafen became emotional as she spoke about the impact of the event. "Many of these students are economically disadvantaged, and to witness this today changes how they see themselves," she said. "They have now seen up close that there is a whole world out there — they can reach out and do more than they have imagined."

A whole world and a whole lot of space, thanks to NASA, said Beth Foley, dean of USU's Emma Eccles Jones College of Education and Human Services. "The importance of STEM education in Utah, and across our nation, is highlighted by the amazing job NASA does to consistently engage with students at an early age," she said. "We are grateful for the leadership of both Sen. Hatch and NASA who have enabled us to reach STEM students throughout Utah with this unique opportunity to interact with the astronauts."

Hatch had glowing words for USU, as well. "Utah State is one of the leading space-grant universities," he said. "It's an honor that our state was chosen to host this special event, which will only strengthen the natural partnership between Utah's STEM workforce and the U.S. space program."