

UA Astronomy Campers Communicate with Space Station Astronaut

By Eric Swedlund, University Communications | June 10, 2013

The UA's Don McCarthy said the camp's first time having contact with an astronaut was hotly anticipated, even before the campers arrived in Tucson.



Astronomy Camp participants speak with astronauts at the UA Steward Observatory. (Photo by Patrick McArdle/UANews)

Students with the University of Arizona's beginning teen Astronomy Camp on June 8 got to ask questions of an astronaut orbiting 250 miles above Earth.

And just like a rocket launch, the contact was a quick yet thrilling experience.

Don McCarthy, an [astronomy](#) professor who's led thousands of kids through the annual summer astronomy camp since 1988, said the camp's first time having contact with an astronaut was hotly anticipated, even before the campers arrived in Tucson.

The 10-minute live forum with astronaut Chris Cassidy was made possible through the Amateur Radio on the International Space Station, a cooperative venture among NASA and other international space agencies, that coordinates scheduled radio contacts between astronauts aboard the ISS and schools.

The students prepared 20 questions for the 10-minute window, asking Cassidy about both personal and scientific topics, like the challenges of zero gravity, what precautions are taken to avoid colliding with space junk, the potential benefits of experiments on board the space station and whether re-entering Earth's atmosphere is scary.

"What do you do for fun in space?" one student asked.



The campers – 14 boys and 16 girls from 14 different states and four Arizona cities – experienced a week of full immersion in science and technology. (Photo by Patrick McArdle/UANews)

"We love to look out the window," Cassidy answered. "One of the fun parts for me is enjoying time with my international crew mates. We also do things that we'd do on Earth, like reading books, listening to music and watching movies."

Sharing a moment of history with Cassidy will be a memory the students will treasure, but it was also another teaching opportunity for McCarthy, helping the campers to prepare their questions ahead of time and practice them to get the most out of their 10 minutes.

"You prepare for something. Maybe you're a little nervous, but you practice and you make it happen. You see the fruits of your labor, and that's a really good educational lesson," he said.

Making contact with Cassidy via radio in the Steward Observatory auditorium just added to the authenticity of the experience for the campers, McCarthy said. During the week, the 30 campers stayed at Kitt Peak National Observatory, using professional equipment such as the 90-inch Bok Telescope to make celestial observations.

"We use the real instruments that traditionally only researchers have access to. We have to compete to get that telescope time," he said.

Saturday's radio contact was made possible with the help of the Tohono O'odham nation's KOHN radio station, which broadcast the entire event.

Former camper Dayanara Sixkiller asked the first question, as well as announcing the beginning and end of the radio contact, while another former camper, Michael Garcia, works for KOHN and helped make the technical connection possible.

The campers – 14 boys and 16 girls from 14 different states and four Arizona cities – experienced a week of full immersion in science and technology. In addition to the Q&A with Cassidy and the telescope viewing, they built their own crystal radios, performed experiments to understand the physics of space flight and learned about the optics and mechanics of telescopes and electronic cameras.

"The biggest effect I've seen in 26 years is the idea of inspiration," McCarthy said. "A lot of these kids come from places, whether it's at school or at home, where their interest in science and technology is not shared. When the students arrive here, they're in their own zone with other people and it resonates that they're not alone. Their interests are confirmed."