Astronaut hosts lecture on space exploration

Presentation discusses International Space Station assembly, program aspects

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"Space Shuttle Mission STS-130 and Scientific Exploration on the International Space Station" detailed Colonel Terry Virts's experiences in space and his answers to audience members' varied questions about aspects of the space program.

Many can say they have traveled outside the country; however, most cannot say they have traveled beyond Earth. Scientific explorations being conducted by NASA are helping the international community better understand life as we know it.

As part of Vaden W. Miles Memorial Lecture March 29, Colonel Terry Virts, STS-130 pilot and lead robotic operator of Space Shuttle Endeavour in 2010, presented "Space Shuttle Mission STS-130 and Scientific Exploration on the International Space Station."

The presentation discussed what Virts and fellow astronauts did on STS-130. AMS2 or Alpha Magnetic Spectrometer-2 was a key part of the final assembly of the International Space Station.

AMS2 will aid in discovering antimatter and dark matter, searching for strangelets and increasing the understanding of cosmic rays.Experiments regarding vaccines for salmonella and other diseases were being experimented as well as cancer treatment delivery.

"The station is built; we still have Americans there doing science and maintaining the station, so there's a lot of work still happening there. We are out of the space shuttle assembly phase and into the operational and utilization phase," Virts said.

Virts not only discusses the scientific explorations, but also his personal experience in space. It is common for astronauts to see a white light when they close their eyes in space due to cosmic rays. In earlier years, astronauts did not openly talk about this experience out of fear of not being able to fly, which would leave other astronauts uninformed and continuing the cycle.

“Early in the space program there was a separation between astronauts and doctors. The doctor could only tell you if you were unable to fly. Doctors are more on our side now. They are there to help fix problems and get you back in flight status,” Virts said.

“I go to a lot of these types of events, and this one was more technical than most,” said Bill Whiting, a community member and autograph collector. “At the Kennedy Space Center and other venues where you can meet astronauts you commonly get questions like: ‘What was it like to be in space?’ ‘What is it like to be an astronaut?’ This was more interesting.”

“The presentation was awesome. If all of my professors, when I was in school, were as good as this guy, I would be a whole lot smarter than I am today,” said Don Lawrenchuk, a former WSU student in the ‘70s and early ‘80s.

Lawrenchuk said that the interaction with the audience made the difference.

“He answered every question as honestly and accurately as he could,” Lawrenchuk said. “The presentation way exceeded my expectations.”

“The first and last question came from a young person, a future astronaut,” said Harriet Saperstein, chairperson at Woodward Avenue Action Association and wife of physics professor Alvin Saperstein.

Bernard Reese II, an eight-year student at the Foreign Language Immersion and Cultural Studies School, was one of many young people asking questions. Reese’s favorite part of the presentation was the question and answer section.

“I heard facts I wouldn’t have thought of asking,” Reese said. Reese is thinking about becoming an astronaut in the future, but is leaving his options open.

“Young people are what give me hope. They ask the best questions. When I get to do things like this, talk to youth, it’s very encouraging,” Virts said.

The audience included students, faculty, youth including Boy Scouts and Girl Scouts of America and community members. Claude Pruneau, WSU professor of physics for 20 years, was a part of the organization team that brought Virts to WSU.

Pruneau has worked on the Vaden W. Miles Memorial Lecture, which is held annually in the spring, for several years. Past hosts include Nobel Prize in physics winners. The prestigious event also honors WSU faculty and students.

”I looked forward to presentation and was not disappointed,” Pruneau said. “Seeing him in space and having him here describing what happened and what he experienced was fun and great.”

Pruneau got into the physics field because he was interested in understanding the nature of things.

“When I was young, I fantasized about being an astronaut, but I cannot spin around for more than two seconds without getting dizzy,” he said.

“I have been a space buff since I was a child. It is great the university put this on. In Michigan, we don’t have a lot of opportunities to have an astronaut come and visit,” Whiting said.

Lawrenchuk called Virts an American hero.

“Thousands apply and few are selected. He has a responsibility to share what he has learned with the rest of us. That’s what he did today. He is sharing it with the next generation,” Lawrenchuk said.

“Being an astronaut is great way to be celebrity; once you take off the blue suit nobody knows who you are,” Virts said.

Virts plans to continue with NASA.

“I believe that soon we are going to be building manned space ships that go to other planets; we already have unmanned ships. There is really exciting research, science and exploration that NASA does. It’s an exciting place to work,” he said.

“One of most important successes of the space program has been the international relation aspect. Corporations for ISS exist between the Europeans, Russians, Japanese and Canadians,” Virts said.

Virts wants students to know there are opportunities to work in the human space flight program for those in the technical, business or management fields.

The risks of being an astronaut are great, as seen with the Columbia and Challenger space shuttle explosions.

“Space flight is not safe. You just can’t call going from 0 to 17000 miles an hour into a vacuum safe. But we do as much as we can to make it as safe as possible,” Virts said.

Safety, he said, is a team effort.

“If you are an astronaut and going to fly in space you have to trust the technicians and ground crew that put your rocket together and help operate station, have done their best. The reason we have the safety records we have had is because we have such good people doing that,” Virts said.

Cost is a problem that NASA faces.

“Cost is always a huge issue in everything we do. Equipment has to be ultra-reliable and be able to work in extreme environments, often only one is build. When you try to do something technically difficult and it doesn’t work the way you thought costs can boom,” Virts said.

Virts said he hopes people got inspired and continue being interested in the exploration of space.