Astronaut Bob Stewart's Recent Denver Visit

by Mary-Frances Bartels
May 15, 2001

Last Saturday, May 5, I attended the monthly meeting of Reasons to Believe - Denver Chapter. This was held at St. Johns Lutheran Church near Washington Park in Denver. Bob Stewart, Vietnam Veteran, and a former astronaut was the guest speaker. His talk briefly mentioned his experience in Vietnam. He then went on to talking about training to be an astronaut and his flights on both the Challenger and Atlantis space shuttles.

One of the more humorous stories he told of training concerned his flight training. NASA uses a small airplane outfitted like the shuttle to teach astronauts how to manipulate the controls. General Stewart said that one of his favorite activities in one of these planes was to fly them upside down. Clouds in Florida often have flat bottoms, so he would try, while flying upside down, to land on the underside of one of the clouds.

Another story of training involved what is commonly known as the Vomit Comet. Though Stewart did not use that term, others have utilized it to portray the airplane that is used to simulate zero-gee. The way this is done is by flying what are called "parabolas," whereby the airplane flies up a roller coaster path and then down. On the upswing a force of two or more gees is exerted on everyone in the aircraft. At the top and on down the other side one experiences zero-gee. Bob Stewart told of a particular chimpanzee that accompanied his team on training on more than one occasion. During the ape's first excursion it became very agitated and started screaming and pulling on the bars of the cage. A subsequent day the chimpanzee was wheeled out to the airplane to begin another day of work. It immediately began making a lot of noise. As the cage neared the plane and was put on board the animal began soiling the cage's bottom, whereby it picked up the mess and started throwing it at everyone it saw. Training to be an astronaut is not always glamourous.

Stewart brought up the filming of Tom Hanks' "Apollo 13" movie. Mr. Hanks and others included in the shots experienced 90 parabolas to get zero-gee shots for the movie.

After detailing astronaut training, Stewart described what a shuttle launch and obtaining orbit are like. He compared the shuttle-rocket assembly on launch day to a giant that does not like to be disturbed. This giant uses many millions of pounds of explosives with the sole goal of throwing the astronaut off the face of the earth. The first time General Stewart was in space he became mildly alarmed when, shortly after MECO, he saw the shuttle's nose pointing downward. As a pilot he knew that an airplane with its nose pointed downward would crash. He took out a pencil and released it. He deduced that if the pencil stayed where he let it go the craft would be in orbit, thus he was safe. However, if it moved towards the windshield it meant that the shuttle would crash. To his relief the pencil stayed where he left it.

The entire talk was illustrated with countless slide photographs. The most fascinating, of course, were those taken from space. Several photos showed life on the space shuttle, including one entertaining story about an escaped drop of strawberry drink and how Bob Stewart tried to subdue it. He tried to drink the drop by opening his lips and trying to suck it in. However, in zero-gee the drop instead went up his face and got stuck in his hair and on his forehead. The story was complete with a photo of the red drop hanging as a sphere in the shuttle craft. Astronauts still drink Tang. In fact, they have a flavor not available in stores, grapefruit.

Life aboard the shuttle also included information on meals, sleeping, and using the restroom.

Mr. Stewart also discussed his involvement in testing and operating the MMU, Manned Maneuvering Unit. Since he was the first person to use this in space, Stewart said he became "Radio Shack's

Cover Boy" for its catalog several years ago. As an introduction to activities performed outside the shuttle, Mr. Stewart said, "One of the best things about working on the shuttle is that you get to play in the backyard," whereupon he showed a photograph of the shuttle with the doors on the cargo bay opened. The audience was told how he and the crew retrieved, repaired, and relaunched satellites.

Toward the end of his talk, Mr. Stewart showed many photographs of the earth taken from space. Part of the crew does not work outside the shuttle, so they often take numerous pictures through the window. Most of the photos were recognized by those in the audience. One of the slides showed the southern portion of Israel and the Sinai peninsula. The way to see the border between Israel and Egypt is by examining the land showing the differences in farming practices between the two countries.

Most space shuttles return to earth by landing at the Cape in Florida. One of the main dangers of a Florida landing is that of an alligator on the runway. A fence was built to protect the landing zone, but NASA soon learned that alligators can climb fences. Should an alligator ever be in the path of a landing shuttle, it would spell destruction to both the vehicle and crew. The main reason the shuttle lands in Florida is due to cost considerations.

The talk was ended with a brief discussion of General Stewart's opinion of the present day space program. He is disappointed in the effort being put into building the International Space Station. His reasoning is that some of the arguments that went into justifying the need for such a facility are now null because, for example, man has learned how to grow crystals and produce some pharmaceuticals better on earth. Some chemicals are better produced in super-gee, not zero-gee. He believes the US should be concentrating more on returning to the moon with the eye toward learning more on how to send men to Mars.

A brief question and answer session followed.

I found Bob's talk fascinating. There was a wide age range in those attending his lecture — from young children to older adults. He was careful to address the interests in every age group. For the adults he gave a little technical information. For the children he said that training to be an astronaut starts with the learning done in elementary school. Though the photos of the earth were appealing, I found the description and accompanying pictures of life aboard the shuttle even more captivating. Satellites can take photos of the earth, but only another human being can give a description and insights into life in the hostile environment of space. Humourous tales peppered his talk, helping his audience to better identify with the unusual nature of his speech. Lastly, he gave a brief testimony of his conversion to Christianity. This happened after his excursions to space and as a result of a close call on his daughter's life.

2001 and Kinetics

The first Saturday in May each year KBCO radio holds a strange race called The Kinetic Sculpture Challenge. Race participants are required to build a craft that can travel across water as well as drive on land and through mud. This year's event was held this past Saturday due to inclement weather on the 5th. Since the EOSS launch had been postponed my family decided to attend. One of the entries in this year's race was called "2001: A Space Oddity" which featured a fairly complete replica of the Discovery space craft in Arthur C. Clarke's "2001: A Space Odyssey." The Kinetic Discovery included engine nozzles that fired and a small satellite dish antenna.