



Challenger Space Center:

# It's Out of This World

—by Sarah Parkin

# W

hether your favorite space movie is “Star Trek,” “Star Wars,” or “Apollo 13,” you will find something fascinating about the Arizona Challenger Space Center. This outstanding facility in Peoria provides hands-on activities and exhibits for all ages to learn about the history of the space program, the science of space travel, as well as plans for space travel to Mars. The center collaborates with the National Aeronautics and Space Administration (NASA), the Smithsonian Institution, Arizona State University, the Lowell Observatory, and many others to present educational exhibits and materials.

Unlike the fiction of Hollywood movies, however, the Challenger Space Center is serious about science. Following the Challenger Disaster of 1986, the victim’s families chose to continue the spirit of their loved ones by creating a living memorial of educational centers. In Arizona, Congressman Bob Stump joined forces with the Peoria Unified School District, and with the help of major corporations, local businesses, and generous individuals, the 21,433 square foot Arizona Challenger Space Center celebrated its grand opening on July 23, 2000.

The Challenger Space Center signed an affiliation agreement with the Smithsonian Institution in 2001, providing the ability to bring national quality exhibits from the Air and Space Collection in Washington D.C., as well as artwork and traveling exhibits.

The entrance to the center represents the space walk that the astronauts stride through when they approach the space shuttle to launch into space.

“They come up a walk that looks just like this, and the whole idea is if you look there,” said Flight Director Joe McCord, pointing toward the glass elevator bank on the far wall, “Doesn’t that look like a spaceship getting ready to blast off with the two solid rocket boosters on the side?”

The elevators across the building are surrounded by a six-story rotunda with a “Tour of the Universe” mural painted by Robert McCall. The mural covers 27,000 square feet of canvas. McCall gained fame when he documented history for NASA in the 1960s. He continued as a space artist painting murals for the National Air & Space Museum, the Pentagon, EPCOT, and Johnson Space Center, and worked on movies including 2001: A Space Odyssey, and Star Trek, the Motion Picture. The space center mural illustrates the story of space from the beginning of time.

One of the first exhibits to see after entering the center is a photo display of the seven astronauts from the Challenger disaster. “In 1986, we lost these seven wonderful people, but here’s the thing,” said McCord, “I think that if these seven people who lost their lives in that accident could come back to earth, I think their very first question would be ‘When is my next mission? When do I

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go up again?’ They were that dedicated, and in the same sense, we are that dedicated to what we’re doing, which is to open people’s eyes to the beauty and wonder of nature and the intricacies of space travel.”

The Meteorite Exhibit is on extended loan from the ASU Center for Meteorite Studies. Meteorites are rocks that arrived from outer space, literally millions of miles away. Some of them contain elements that do not exist on planet Earth. “Gravity brings them in, we recover them, and we study them so we can see what they are made of,” said McCord. “If we’re going to travel in space, we need to know what’s out there. We need to know what we’re up against and we need to learn how to deal with it.”

Flight directors combine entertainment with education as they conduct tours of the facility daily, Monday through Saturday. On display in the Cosmic Café, an Iridium communications satellite on permanent loan, courtesy of Motorola, hangs from the ceiling. Flight Directors explain how the signals from cell phones travel at the speed of light to the satellites around the earth, allowing people to communicate with others on the opposite side of the earth in real time. During off-hours, the Cosmic Café becomes “the only café in town that doesn’t serve food,” according to Board Liaison and Acting Director Mary Lynn Kelly. Instead, guests take dinner trays and lunch pails filled with components and directions to make homemade plastic or glue, build models, or perform experiments.

Doors of a ten-foot-high model of the Atlantis Space Shuttle, open up to replicate the actual 184 foot-long space shuttles Discovery, Atlantis, and Endeavor. The space shuttles transport people and payloads back and forth to the International Space Station and maintain satellites in order to keep our communication systems working. This allows us to use our cell phones and keep up-to-date on news around the world.

With a reservation, visitors can participate in a simulated space mission. In "Rendezvous with a Comet," the mission is to build and launch a probe, rendezvous with Comet Encke, and work on board the International Space Station. "Voyage to Mars" involves becoming part of the first colony of humans living on Mars. "Return to the Moon" includes building and launching a lunar rover, as well as recovering and repairing a stranded probe. Simulated space missions generally run about three hours. Visitors become crewmembers and need to perform tasks to assure the success of the mission.

At least once a month, the Challenger Space Center hosts an evening of stargazing with high-powered telescopes. "Stargazing specialist" Tony LaConte leads groups through a slide presentation including different folklore about the constellations, and an opportunity to view the moon, planets, and stars from different high-powered telescopes. Telescope classes and help seminars assist with assembly and use of your telescope to improve the viewing of star clusters, nebula, and galaxies. Telescopes and binoculars are available, or you are welcome to bring your own.

The Giant StarLab Planetarium offers programs once per month. These programs teach about upcoming sky events, the stars, constellations, the moon, planets, deep space objects, celestial coordinates, the seasons, and multicultural folklore and mythology.

Each year the center accepts entries for the Aerospace Challenge where Arizona students submit physical scale models and written reports of a "new" generation International Space Station that accommodates a crew of 100 people for two years. NASA astronauts, scientists, and engineers judge the finalists and determine a winner. The winners participated in the 2006 Fiesta Bowl festivities and parade, and later in the year flew to Houston, Texas, for the launch of the Atlantis Space Shuttle. The 2007 winners will attend a weeklong space camp.

The Challenger Space Center provides programming for schools, corporations, and the public. There are camps during the summer and school breaks that specialize in aerospace invention, biotechnology, and advanced rocketry. They also design age-appropriate field trips for schools. Corporations bring their employees to the center to experience a variety of teambuilding activities, including a corpo-

rate simulated mission, and an Apollo 13 rescue. These programs take employees out of their normal work environment and focus on communication, problem solving, decision-making, and other necessary skills.

Blast off with your imagination and though the Challenger Space Center focuses on science and education, the flight directors won't mind if you use your favorite space movie quote, whether it is "Let the force be with you," "Beam me up, Scotty," or "Houston, we have a problem."



## Challenger Space Center Tours

Monday thru Friday: 10am, 11am, 1pm, 2pm and 3pm

Saturday: 10am, 11am, 12pm, 1pm, and 2pm

Admission:

\$6 - Adults

\$4 - Students (6-18 yrs)

\$4 - Seniors (55+ yrs)

Free for ages 5 and under

Free for Challenger Members

Missions fly year-round on Saturdays at 10:30am and 1:00pm.

Boarding pass cost is \$17.50 for adults and \$15.00 for students and seniors. For the duration of the mission, participants will be give instructions at a 6th grade reading level. 3rd and 4th graders must fly with a ticketed adult. Not recommended for 2nd grade & under. Prepaid reservations are required.

Cost:

\$6 - Adults

\$4 - Students & Seniors

Children 5 & under free

Challenger members free

Giant StarLab Planetarium Shows/Event Cost: \$4 per person

Tickets are sold day of StarLab on a first come first serve basis.  
website: [www.azchallenger.org](http://www.azchallenger.org)

### 2005 Challenger Space Center

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