

Roundup

SPACE CENTER ROUNDUP

Lyndon B. Johnson Space Center

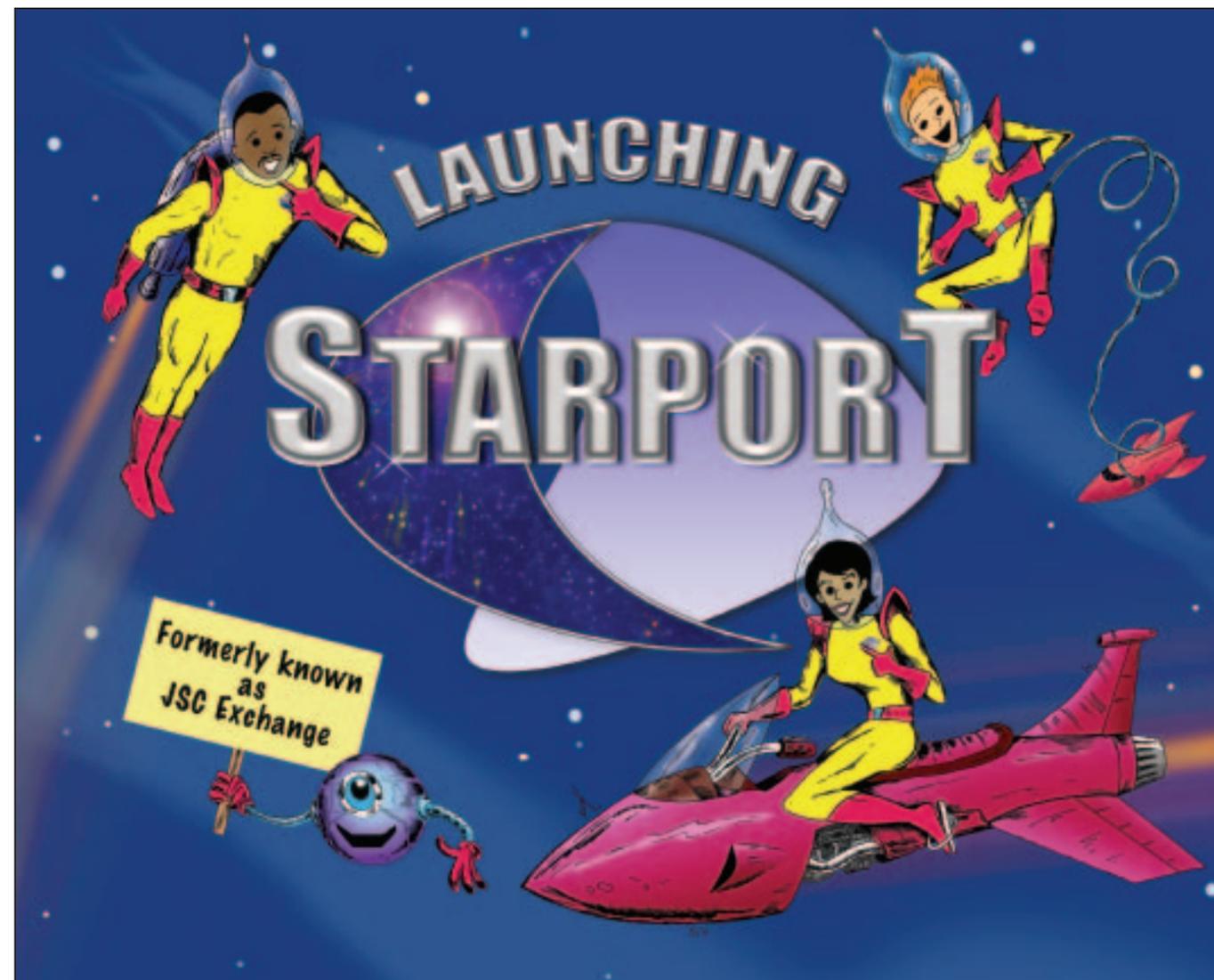


Expedition 9 crew returns home safely

Cosmonaut Gennady I. Padalka, Russia's Federal Space Agency Expedition 9 commander, smiles after the safe landing of the Soyuz spacecraft with fellow crewmembers Astronaut Edward M. (Mike) Fincke, NASA International Space Station science officer and flight engineer, and Russian Space Forces Cosmonaut Yuri Shargin. The crew landed approximately 85 kilometers northeast of Arkalyk in northern Kazakhstan on Oct. 24.

Astronaut Mike Fincke shows his happiness with the successful landing of the Soyuz spacecraft.

Renita Fincke awaits the arrival of her husband, Astronaut Mike Fincke, while holding their 4-month-old baby, Tarali Fincke. Astronaut Terry Virts helps by holding Chandra Fincke.



Space Center Roundup

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A galaxy of services just for you

Starport recently landed at Johnson Space Center. Formerly known as the JSC Exchange, Starport encompasses the JSC Cafés, Gift Shops, Starport Fitness at the Gilruth Center and more. JSC employees can count on Starport for food, fitness and fun.

Read more on pages 3-5.

December
2004
Houston, Texas

Beak sends...

A MESSAGE FROM CENTER DIRECTOR
LT. GEN. JEFFERSON D. HOWELL JR.



A holiday request

It's December again and time for the myriad of activities that seem to overwhelm us at this time of year. Talk about stress! Add the incredible demands imposed upon us by the holiday hubbub to all the tugs on our attention and time that we already have in our lives. The pressure cooker we live in just added some more steam!

With that in mind, I would like to make one request to everyone reading this note. First, let me provide some background.

Having served almost 40 years in the Marine Corps, I've spent the Christmas season in places all over the world as well as at various spots in the United States. Because of different customs, climes and situations, many of these experiences were quite unique. In Oslo, Norway, for instance, on Christmas Eve candles are placed at the headstones of all the graves in the church graveyards. This creates a very beautiful and moving effect on a dark night with freshly fallen snow.

I recall that in Hawaii one had to concentrate to get into the 'Christmas spirit' because of continual warm, sunny days with flowers in bloom. Everyone tracked the progress of the 'Christmas Tree Boat' that brought the load of trees to the island. You wanted to be at the dock on the day it arrived so that you could get a good pick. You also learned to shake the tree real good to get the mosquitoes out of it before taking it into the house.

In muddy Nam Phong, Thailand, which we Marines named 'The Rose Garden,' decorations were made out of tin cans and other odds and ends. There were various macho high jinks as we tried to forget how much we missed home. Combat does not take a holiday break. We kept flying into North and South Vietnam.

I could recount several other uncommon Christmas experiences, but the point I want to make is this: I have discovered that it is not the circumstances I find myself in that make this time of year so special. On the contrary, it is the celebration of the gift of love and the manifestation of that gift through sharing it with my family and friends that makes this time of year so extraordinary.

My request: Don't let the holiday activities overwhelm you. Please try to set aside as much time as possible to enjoy the company of those dearest to you. Take it from an old guy, time spent with family and friends is the most precious there is.

HAPPY HOLIDAYS!



JSC employees are invited to dock, refuel and relax

Starport offers a galaxy of services

by Tiffany Travis



NASA/Artist's concept

STARPORT, formerly known as the Johnson Space Center Exchange, is an umbrella of services including the two on-site cafeterias, catering, vending services, gift shops and the Gilruth Center.

"We developed the name 'Starport' to represent the idea of a place where JSC employees can come to dock and replenish," Deborah Conder, manager of Starport operations, said. But Starport brings with it more than just a new name; many improvements are being made at various Starport facilities.

One major change is the awarding of the food services contract to Sodexo, a premier food-service company. The outsourcing of food services brings in high-quality products and a wide variety of healthier, trendier dining choices.

The Building 3 and 11 Cafés are getting major face-lifts as part of the Starport improvements. The Bldg. 3 Café received a fresh coat of paint and new food stations with an array of new dishes. Additions to the breakfast menu, along with seven new dining stations, now offer a wide range of cuisines. JSC

Once the Bldg. 11 renovation project is complete, café customers will be able to come into one large open area and select anything they wish from the grill, soup line, entrées and more.

employees are able to select items from the Selona Grill, La Vincita, All that Jazz Salads, Chef's Features, Copper Pot, Deli Signatures and Simply-to-Go.

For those looking for a caffeine fix, the new Beverage Station, also located in the Bldg. 3 Café, serves Starbucks coffees and Tazo teas in addition to sodas, juices and bottled waters. As an added bonus, nutritional information is now provided, and point-of-sale systems have been installed so that customers can pay by credit card.

Construction, which will result in a complete transformation of the serving area, began in October on the Bldg. 11 Café. The new café will be a tremendous improvement from the old set-up, both in its functionality and its attractiveness. Another big improvement employees will enjoy is the enhanced delivery option, which will include entrées, hamburgers and hot grill specials – even the 3-2-1 salads.

continued on page 4

Starport

The Web sites for all Starport services are currently being overhauled, and by early next year employees will be able to access menu and nutrition information, as well as ordering food online. "We are excited to revamp our Web sites to better meet the overall communication needs of the JSC team," Conder said.

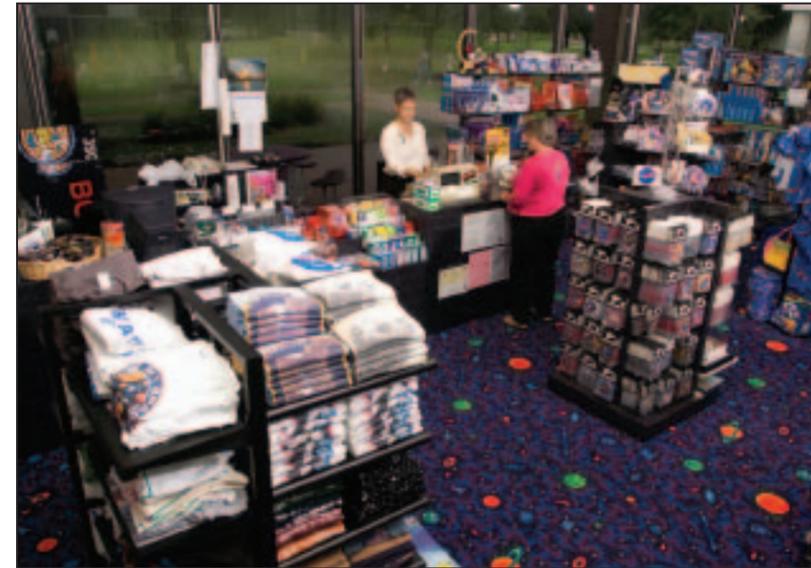
The Gilruth Center is also included in the new Starport renovations – now known as "Starport Fitness at the Gilruth Center." The facility is receiving a major overhaul that includes increased square footage, two new exercise rooms, larger men's and women's locker and shower facilities and an expanded weight room.

Other changes within the Starport program include the completed remodeling of both gift shops. The Starport Gift Shop has already had an extreme makeover. In December of 2002, the Bldg. 11 store went from a counter to a fully enclosed gift shop with a space theme. And, in December of 2003, the Bldg. 3 store expanded to twice its size and added a fun space theme.

"Starport is for you!" Conder said. "Starport is the place that you can rely on to help you achieve a little replenishment throughout your busy work schedules."



I'm Starport Stan. You can find me at the Starport Cafés, catered events or hanging out at the vending machines.



The Starport Gift Shop offers greeting cards, photo processing, floral arrangements, stamps, discount tickets, business cards, balloon bouquets, UPS shipping and, of course, plenty of NASA merchandise.



I'm On-the-go Joe. You can find me at the Starport Gift Shop buying discount tickets, memorabilia, T-shirts or even flowers for my sweetie.



Above: Center employees can now enjoy a new look, along with the new services, at the Bldg. 3 Starport Café.



Left: This November, Starport brought in the new food service contractor, Sodexo, which offers high-quality dining options with something to suit everyone's taste. Their signature programs add healthier food choices and greater variety.



The first phase of a major renovation of the Gilruth is now under way and will give the facility increased square footage for a temporary weight room and larger men's and women's locker and shower facilities. The second phase will provide for the addition of two dedicated group exercise rooms and a completion of the final fitness center that will provide a greater variety of resistance, free weight and aerobics machines.

ABOUT THE CHARACTERS

Starport characters were created by one of JSC's very own artists, John Streeter, with the JIMMS contract. A "Name the Character Contest" was held during Safety and Total Health Day, where JSC employees voted for each of the character's names. Winners were:

- Claire Cox** Character name: *Starport Stan*
- Mitchell Chisenberry** Character name: *Stay C. Fit*
- Angel Hadnott** Character name: *On-the-go Joe*



I'm Stay C. Fit. You can find me exercising at Starport Fitness at the Gilruth, taking a group exercise class or playing team sports.

Explorer Schools

nurture the scientists of the future

by Julie Burt

Most of the 210 kindergarten through 12th-grade students attending Sasakwa Elementary and Sasakwa High School in Sasakwa, Okla., are bused in from nearby towns. Each morning sleepy students – the majority of them Native American – pass through the doors of the brick school building that houses both the elementary and the high school. But today they get a little something extra – a boost of energy in the form of a red, white and blue paper banner that reads “Sasakwa – the FIRST NASA Explorer School in Oklahoma!”

There are currently 100 NASA Explorer School teams in 46 states. Teams are made of teachers and administrators, and some teams consist of individuals from different schools within the same school district. The program grows by 50 teams each year. Open season for teams to apply for the 2005 selection ends Jan. 31.

Focusing on underserved populations, NASA implemented the Explorer School Program in 2003 to improve teaching and learning in middle school science, technology, engineering and math.

While partnered with NASA, teams in the program are eligible to receive up to \$17,500 over a three-year period to purchase technology tools that support science and mathematics instruction. Using unique NASA teaching resources, technology tools and experts, Explorer School teams will supplement their current lesson plans for grades four through nine.

“We congratulate you on being selected as one of the 2004 Explorer Schools and welcome you to the NASA family,” NASA Science Officer Mike Fincke said to students in a downlinked message from the International Space Station. “The journey begins with you. Efforts of students such as yourselves will lead our nation into the future.”

This fall, NASA representatives traveled to each of the 50 teams’ local schools to kick off the three-year partnership.



A large portion of the students at Sasakwa Public Schools are of Native American descent. Ken Chambers, Chief of the Seminole Nation, is seen here with students from his tribe, Deputy Center Director Bob Cabana and Astronaut Janet Kavandi.

Johnson Space Center’s Center leadership, astronauts and representatives from the education and public affairs offices flocked to cities from Waco, Texas, to Wahpeton, N.D., to give an official welcome to the newest members of the NASA team.

“I was bragging a little bit when I went to town to buy my khaki skirt,” Sasakwa High School senior Meagan Sanchez, who is of Native American and Hispanic descent, said. Sanchez was chosen to represent her school and introduce guest speaker Astronaut Janet Kavandi at Sasakwa’s kick-off event in October. “The sales lady asked why so many of us needed khaki skirts and pants. I explained to her that we were a NASA Explorer School and that visitors from NASA were coming to Sasakwa soon.”

The theme for the fall school visits was “There is a place for me at NASA.” JSC representatives told students that many different careers await them in the space program, from accountants to dieticians, climatologists to Web site designers, scientists to engineers.



Students and faculty from G.W. Carver Academy, West Ward Elementary School, Circle of Nations School, Jardine Diversified Leadership and Technology Magnet School and James Madison High School participate in NASA Explorer School program activities. NASA Explorer Schools have the unique opportunity to incorporate NASA teaching resources, technology tools and experts to supplement their regular lesson plans.

“It’s important that students realize that you don’t have to be an astronaut to work for NASA,” Ed Pritchard, JSC Explorer School Program Manager, said. “NASA will be counting on these students to help us reach our exploration goals as we prepare to go to the Moon, Mars and beyond.”

Besides being the first in the state of Oklahoma, Sasakwa’s Explorer School, made of the elementary school and the high school, has another distinguishing characteristic: it is the smallest NASA Explorer School, with 210 students. “Even smaller than the (Explorer) school in Alaska,” Sasakwa Explorer School Team Lead Kyle Wilson said, wearing a NASA lapel pin on his orange rain-soaked shirt. He had just finished an egg drop experiment with his seventh-grade students.

Wilson, who led Sasakwa’s effort to apply for the NASA Explorer School program, teaches seventh-grade math and eighth-grade

science, math, health and language arts. He also serves as the assistant principal. This past summer, Wilson and his three Explorer School team members traveled to Houston to get hands-on instruction in how to bring NASA to his students.

“We really liked visiting the Neutral Buoyancy Lab and Ellington Field,” Wilson said. His team has applied for the chance to fly an experiment on NASA’s C-9, the plane that can be flown to simulate the weightless environment of space. They await notification, as the selected teams are set to fly in April 2005.

Teachers and administrators around the country have the opportunity to form teams and apply for the NASA Explorer School program now through Jan. 31. The application is online at: <http://explorerschools.nasa.gov>

NATIONAL GEOGRAPHIC

to feature Gemini 8 in "Expeditions to the Edge"

by Catherine E. Borsché

The blockbuster movie about Apollo 13 put NASA's heroic accomplishments on the forefront with the general public. Soon, a film about another legendary mission – Gemini 8 – will do the same.

National Geographic has created a documentary television series appropriately named "Expeditions to the Edge." The series will follow 13 stories of adventure and survival as scientists, explorers and adventurers are pushed to the edge of human endurance.

On Oct. 25 and 26, GRB Entertainment, the production company shooting the series for National Geographic, came to Johnson Space Center's historic Mission Control to film the Gemini 8 reenactment. In addition to a small cast of their own actors, GRB Entertainment recruited approximately 40 JSC employees to act as extras in the episode.

"One of the things that was fun for us was to involve NASA personnel as much as possible. Nobody loves this stuff or lives it more than the people that work at JSC," Lars Ullberg, supervising producer, said.

National Geographic chose to feature the Gemini 8 mission in the adventure series because it is a thrilling story about a very "extreme" expedition into space – and one that not many people know about.

"They are already doing the impossible on these expeditions," Ullberg said. "They're going to the top of Everest; they're going to the bottom of the ocean. Then these expeditions run into the unexpected, which makes the impossible even more impossible. And, it doesn't always work out. Not every expedition in the show has a happy ending."

Fortunately for the NASA Family, Gemini 8 did have a happy ending.

After a failed attempt to rendezvous and dock two launch vehicles in space with Gemini 6-A five months earlier, NASA decided to try again with Gemini 8. Neil Armstrong and David R. Scott, the astronaut crew for Gemini 8, would pilot the second attempt.

Agena, the target launch vehicle, lifted off from pad 14 at 10 a.m. on March 16, 1966. With one vehicle up and one to go, Gemini 8 lifted off approximately 40 minutes later from pad 19.

Everything seemed to be going according to plan. When Agena came into sight, Armstrong had no problems maneuvering his spacecraft on station with the target vehicle. Seconds later, Armstrong was happy to report to the flight controllers that they were docked. He even added, "It's ... really a smoothie – no noticeable oscillations at all." After the cheerful announcement, pandemonium broke loose in Mission Control.

As the spacecraft went out of communications range, the real test for Gemini 8 began. Agena was designed to obey orders from the spacecraft and ground control. However, it was obvious that something was not right. As Scott looked over the control panel in the spacecraft, he saw that it did not appear that they were in level flight. The attitude ball indicator showed a 30-degree roll. All this occurred as they passed through the Earth's shadow and were out of range to talk to Mission Control.

The spacecraft attitude ball continued to tumble. Scott commanded Agena to turn off its attitude control system. This worked for only four minutes. Suddenly, they began to roll again. It was apparent that the crew would need to undock to further assess the situation.

After Scott hit the undock button, the spacecraft rolled even faster, spinning at the rate of one revolution per second. Very quickly, Armstrong and Scott were reaching their physiological limits to deal with the ominous situation. As a last-ditch effort, Armstrong reactivated the maneuver thrusters.

The mission would have to come to an end immediately since the reentry thrusters had been activated. After locating a contingency splashdown site in the Pacific Ocean, Gemini 8 ended on the mission after just 10 hours, 41 minutes and 26 seconds.

Gemini 8 encompassed many elements of a dramatic story. "What we have found in a lot of these expeditions is that the difference between great success and great tragedy

comes down to a millisecond," Philippe Denham, senior producer and director, said. "In this particular mission, there was a millisecond where these people had to make incredible choices to come back safely."

Just as amazing are the background accounts that many do not know about Gemini 8. "How many people know that for minutes, great spans of time, things were happening up there and Mission Control had no idea? In this particular case, while Mission Control is celebrating the first docking in space, a potentially life-threatening problem arises, and no one has a clue," Denham said.

The Gemini 8 reenactment in "Expeditions to the Edge" aims to humanize the mission and show the emotional journey that all involved with the mission had to go through.

"Not only do we want to show how heroic the astronauts were, but also how difficult it was for the people in Mission Control. You can see what a team effort it is. That, in essence, is what we're learning during this trip and what we hope comes across in this documentary," Denham said.

This Gemini 8 episode is slated to air on the National Geographic channel sometime in January.

Johnson Space Center employees become stars in their own right

On Oct. 26, approximately 40 JSC employees participated as extras in a Gemini 8 reenactment for National Geographic's "Expeditions to the Edge" television series. The experience proved to be one many will never forget.

"This was an absolutely amazing experience, eye-opening at the very least," Brion Au, who played an on-console flight surgeon, said. "I never realized how far the Gemini program pushed the United States space program experience."

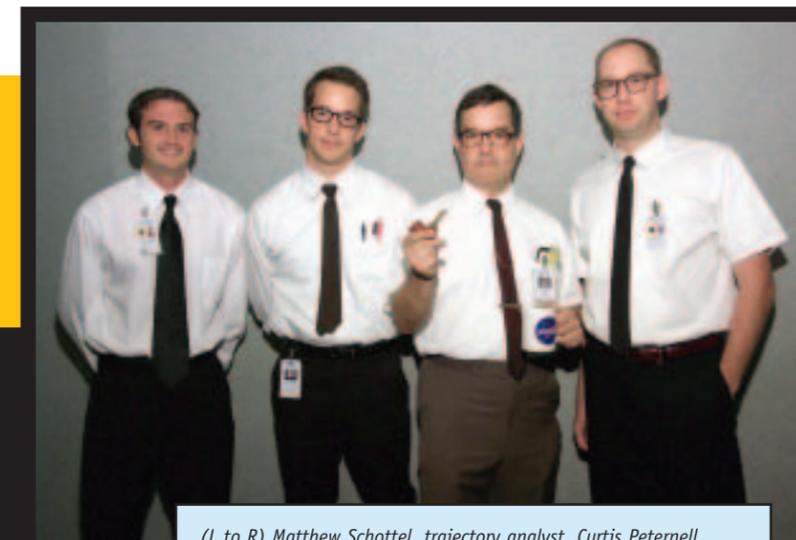
Acting in the episode also taught some JSC employees valuable history about the sometimes forgotten Gemini program.

"It was interesting and, for me, very educational. I didn't know much about the Gemini mission before walking in there," Clinton Balmain, who played a guidance flight control officer, said.

Zach Drewry, who was given the part of Charles "Pete" Conrad, reacted with shock after he learned he would have a speaking part in the production.

"When I got there, they handed me a script and a highlighter and said, 'Here are your lines.' Sure enough, I had about six lines in three different scenes," Drewry said.

Performing as CAPCOM, Drewry was given the monumental task of "getting into character." It was clear from the script



(L to R) Matthew Schottel, trajectory analyst, Curtis Petemell, International Space Station systems instructor, Bill Huebner, flight controller – EECOM, and Paul Felker, flight controller – ECLSS

that it was a very tense moment as the crew tried to regain control of the spacecraft.

"Just imagining myself in the situation gave me a chill," Drewry said. "I rehearsed the lines over and over and tried not to get nervous. When I said my part, I thought I sounded a little dry. Lars would give me little instructions like 'not so uptight' and 'lighten up a bit.' I kept thinking, 'I'm glad I'm an engineer and not an actor.'"

"It'll be interesting to see the end product televised, having seen part of what went into making it," Balmain said.

Drewry agrees. "I learned that making a movie is a heck of a lot harder than I had imagined, but it was a once in a lifetime opportunity I really enjoyed!"

Everyone will be able to view their colleagues in a whole new light when watching the Gemini 8 episode of "Expeditions to the Edge."



Astronaut John W. Young, commander of the Apollo 16 lunar landing mission, leaps from the lunar surface as he salutes the United States flag at the Descartes landing site during the first Apollo 16 spacewalk. Astronaut Charles M. Duke, Jr., lunar module pilot, took this picture.

NASA ASI 6-113-18339

Man in the Moon

Capt. John W. Young retires after four decades dedicated to space

by Amiko Nevills

Forty-three years ago, Navy test pilot John Young tuned in on a small, black-and-white television at the Naval Air Test Center in Florida as President John Kennedy addressed the nation.

After hearing the president's bold proposal to land a man on the Moon and return him safely to Earth, Young's purpose emerged.

"I thought returning safely to Earth sounded like a good idea," Young said, who has stood on the Moon, driven 16 miles in a lunar rover and slept three nights on the lunar surface. He is the only person to go into space as part of the Gemini, Apollo and Space Shuttle programs and was the first to fly into space six times – seven times counting his lunar liftoff.

The retiring astronaut describes his extraordinary achievements in a career that spans four decades as merely doing his job.

Young's impressive career at NASA began in 1962 when he was selected among hundreds of young pilots to become an astronaut.

Young was born in San Francisco. His family moved to Georgia and then Florida, where he lived most of his childhood along with his younger brother.

As a boy, Young's favorite pastimes were building model airplanes – the first hint of his passion for aeronautics – and reading.

"My grandpa taught me how to read," Young said, whose hobby today is still reading about facts, history and exploration. "I read the encyclopedia when I was 5."



His father, a civil engineer, was Young's closest and most admired role model. Young graduated from Orlando High School and received a degree with highest honors in aeronautical engineering from Georgia Tech in 1952.

Following graduation, he joined the Navy and, after a year's service aboard a destroyer, was sent to flight training. He flew fighter planes for four years.

Young then completed test pilot training and served for three years at the Navy's Air Test Center, where he heeded the president's call to go to the Moon.

His first flight as an astronaut was Gemini 3, the first manned flight of that program, with Gus Grissom, in March 1965.

As Young prepared for his first flight, his obligation ruled over excitement or any other emotion.

"We were just thinking about doing the job right," Young said.

Later, he piloted the Command Module on the Apollo 10 mission with Tom Stafford and Gene Cernan. They completed a lunar rendezvous and scouted landing sites from lunar orbit.

On his second trip to the Moon on Apollo 16, Young and Charlie Duke landed, set up scientific equipment and explored lunar highlands. The mission returned more than 200 pounds of Moon rocks gathered from three geological outings.

"The Moon is a very nice place," Young said. "When we landed, we were 20 minutes behind. Because time on the Moon was so precious, what I remember most is trying to catch up."

In addition to his six spaceflights, Young was a member of five backup crews. He spent 15,000 hours training as a prime and backup crewmember, mostly in simulators. He logged more than 13,200 hours of flight time, including 835 hours in space.

"We were just thinking about doing the job right." John W. Young

In early 1973, he became chief of the Space Shuttle Branch of the Astronaut Office at Johnson Space Center. The following year, Young, who retired from the Navy as a captain in 1976 after 25 years of military service, was named chief of the Astronaut Office, a post he held until May 1987.

Young's career was one of many firsts. He commanded Space Shuttle *Columbia's* maiden flight in April 1981. It was the first piloted spacecraft to be tested in space with no previous unpowered orbital flights. In late 1983, Young commanded STS-9, the first Spacelab mission.

He later served as special assistant to the JSC director, advising



NASA S66-34674

Crew of Gemini 10 spaceflight, Astronauts John W. Young (left) and Michael Collins (right), arrive aboard the recovery ship U.S.S. Guadalcanal.

on engineering, operations and safety matters relating to the International Space Station, Space Shuttle upgrades and advanced human space exploration programs.

Young became associate director (technical) of the Center in February 1996, overseeing technical, operational and safety of NASA programs assigned to JSC.

Throughout this time, Young has remained an active astronaut, eligible to command Space Shuttle missions.

Today, a dozen cardboard boxes sit on the floor just inside the doorway of his office where he has worked as JSC's associate director (technical) for the past eight years. The vanilla walls and two bookcases are bare.

Propped vertically on his credenza, a book with large red letters that read "Gung Ho!" reveals evidence of his motivational leadership. Pictures, posters and other mementos scattered across a table tell of a colorful, storied past and a devotion to his life-long work.

His achievements are exceptional and his major awards number more than 80, including six honorary doctorate degrees. In 1988, he was inducted into the National Aviation Hall of Fame.

The legacy he leaves behind exemplifies a commitment to space exploration for humanity in its truest form. His dedication thrives on his belief in the space program.

"I've been very lucky, I think," Young said. As to which moment was most memorable, he said simply, "I liked them all."