

Ripped from the ROUNDUP

Ripped straight from the pages of old Space News Roundups, here's what happened at JSC on this date:

1 9 6 4

The Ranger spacecraft impacted on the moon in the "Sea of Clouds" (Mare Nubium) area last Friday morning at 7:25 (CST), but not before it had taken 4,316 pictures and transmitted them back to Earth and the Deep Space Network tracking station at Goldstone, Calif.

Jet Propulsion Laboratory scientists said the Ranger impacted within ten miles of the planned target area and continued taking pictures up until three-tenths of a second before impact.

The last picture was taken at less than a half-mile from the moon's surface and covered an area some 65 feet across. Pictures were recorded on 35mm film and magnetic tape.

1 9 6 9

July 20, 1969, came eight years after an American President, John F. Kennedy, committed his nation to a manned landing on the moon; it came just four decades after aerospace pioneer and prophet, Robert Goddard, predicted the technological ability to achieve a safe landing; and it came centuries after man first stared up at the large glowing orb in the night sky and wondered what miracle might take him there.

On July 20, 1969, the people of Earth witnessed the culmination of that technological "miracle" as Neil A. Armstrong lowered himself from the spacecraft to the lunar surface and took "one small step for man, one giant leap for mankind."

1 9 8 9

The far encounter phase of Voyager 2's appointment with the planet Neptune will not begin until Sunday, but information from the 12-year-old spacecraft already is yielding surprises. Images have revealed three additional new moons in orbit around Neptune, Voyager imaging team scientists announced Thursday.

The discovery brings to six the number of moons known to exist around the blue planet, including one, 1989 N1, discovered by Voyager 2 last month. The spacecraft, launched in 1977, has explored Jupiter, Saturn, and Uranus and will come within 3,000 miles of Neptune on Aug. 24.



JSC holds successful 'Bring Our Children to Work Day'

By Jessie Hendrick

Bring Our Children to Work Day was held on June 11 at the Gilruth Center. Approximately 500 students and their parents had an opportunity to learn more about the work that is done at JSC. Jessie Hendrick of the JSC Equal Opportunity Programs Office and Janet Gouveia, an AverStar employee representing Team NASA, coordinated the event.

With the words, "Are we ready to rumble?" the biotechnology team introduced students to how JSC research scientists use the bioreactor to study the effects of microgravity on cells. Dr. Marguerite A. Sognier of the biotechnology team, employee of the University Space Research Association and assistant director of Science Education at the University of Texas Medical Branch, led the team. Other members of the team were Dr. Ruwaida Haddad, a USRA employee also working in the biotechnology program, and Diane Byerly, chief of integration in JSC's biotechnology program. The program was very interactive and allowed children to see and use balloons to model how cells grow on Earth in one unit gravity (monolayer) and in space in microgravity (three dimensions). The aims of the biotechnology program and the research devoted to tissue engineering, such as the long-term goal of creating replacement tissues, were discussed.

The students and parents also viewed bioreactors that were on display courtesy of Synthecon, Inc. and learned how these



JSC Photo S99-06218 by Robert Markowitz
Equal Opportunity Programs Director Estella Hernandez Gillette hands out goodie bags to the children during registration at "Bring Our Children to Work Day" on June 11.

NASA-designed devices simulate gravity, one of the success stories from the biotechnology program. Attendees learned how cells are grown in these devices and how useful they are for tissue engineering. They also learned what is involved in being a research scientist and about the important biotechnology science facilities being constructed to support the International Space Station.

In the second presentation, students and parents were given a glimpse of the future in space design by learning about the TransHab and the Combination Lander. Dr. William Schneider, JSC senior engineer, Space Systems, and George Parma, aerospace engineer, Structural Mechanical Design and Analysis Branch, both of JSC's Engineering Directorate, were the presenters.

Students and parents were fascinated by the concept of a lighter and cheaper spacecraft (TransHab) that may be used for the International Space Station and manned missions to Mars. Members of the audience were able to see and touch the Kevlar material that is an integral part of its construction. Students were encouraged to guess what size particle would make a fist-sized dent in a 2-inch-thick, 10-pound piece of aluminum. They were astonished to realize that in space, a particle just a little larger than a BB could cause such damage. Schneider and Parma further explained that the design, which includes the Kevlar, would protect the TransHab while it is on orbit. Schneider and Parma also brought a model of the Combination Lander that may be used in a Mars mission.

"Bring Our Children to Work Day is a wonderful opportunity for students to learn about the work here at JSC," said Hendrick. "We are already planning for next year - our target date is Friday, June 9, 2000, with presentations on the International Space Station and planetary science, and we hope to see you and your children there." ■

White Sands firefighter comes to the rescue

By Nicole Cloutier

Parade spectators in Las Cruces, N.M., were witness to a live emergency procedure during the Fourth of July weekend.

As most of the crowd was taking in the holiday procession of Las Cruces' "Electric Light Parade," a young boy began choking on a piece of hard candy. Luckily, also in the crowd was Lt. Eric Crespin, a NASA firefighter and Emergency Medical Technician at White Sands Test Facility.

"I saw the father, holding the child upside down, striking the child's back in an attempt to dislodge the obstruction," said Crespin, 25. "That tends to further lodge the object, so I knew I had to take action."

After introducing himself to the father as a trained EMT, Crespin stood the child upright and confirmed he had an obstructed airway. Crespin then used a modified version of the Heimlich maneuver on the small child to expel the obstruction.



NASA-WSTF Photo by Lou Rosales
Eric Crespin, firefighter

"He immediately took control of the situation and dislodged the object," said Fermin Rubio, city attorney for Las Cruces and one of the bystanders who saw the

incident. "I was very impressed. Saving a person's life is a pretty big accomplishment and he seemed very modest about it, but he deserves a lot of thanks for doing such a great job."

"I couldn't tell you how I felt at the moment," added Crespin. "As an EMT, I don't think of anything but my patient."

Lt. Crespin is an "exceptional firefighter," according to Merritt Pratt, WSTF fire chief. He recently completed intermediate EMT training, and in his role at WSTF, instructs other employees on first aid, including the Heimlich maneuver and CPR. He attended the parade with wife, Penny, and son, CJ. ■

Editor's note: JSC offers CPR training as part of its "Got the squeeze - call the 33333s" program. Call x36475 or x37896 for more information. For immediate assistance with any onsite emergency, such as choking, call x33333.

TICKET WINDOW

Exchange Store hours

Monday-Friday

Bldg. 3 7 a.m.-4 p.m.

Bldg. 11 9 a.m.-3 p.m.

All tickets are nonrefundable.

Metro tokens and value cards are available.

For more information, please call x35350.

The following discount tickets are available at the Exchange Stores:

General Cinema Theaters	\$5.50
Sony Loew's Theaters	\$5.00
AMC Theaters	\$4.75
Fiesta Texas	adult ..\$18.25 ..(child under 48") .. \$15.50
Astroworld One-day Admission	\$21.00
Astroworld Season Pass	\$54.75
(valid at all Texas Six Flags Theme Parks and Water World)	
Water World	\$10.75
Moody Gardens (2 of 6 events)	\$9.75
Sea World	adult ..\$27.25 ..child (age 3-11) ..\$18.25
Schlitterbahn Water Park	adult ..\$20.75 ..child (age 3-11) ..\$17.50
Space Center Houston	adult ..\$10.25 ..child (age 4-11) .. \$6.50
Space Center Houston Annual Pass	\$18.75
(JSC civil service employees free.)	
Splash Town Water Park	adult ..\$14.50 (child 48" and under) .. \$11.50

Houston Comets tickets are now available for August 6 and August 18. Limited quantities. Houston Astros tickets are now available for August 13 and September 12. Limited quantities.