

Ripped from the ROUNDUP

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

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Columbia, the first Space Transportation System Orbiter, takes off today from Dryden in California to ride on the back of NASA's 747 carrier to Kennedy Center. *Columbia* will make three intermediate stops at military air bases along the way, stopping overnight at Kelly AFB in San Antonio.

At Kennedy, *Columbia* will spend 20 weeks in systems testing and checkout including installation of 7800 ceramic tiles, three main engines, and the Orbiter Maneuvering System. It will then spend three weeks in the Vehicle Assembly Building being mated to its External Tanks and the Solid Rocket Boosters.

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Discovery and her crew of five proved Monday that NASA can take a serious technical setback, correct the problem and launch safely without compromising the space shuttle flight schedule.

Protecting a critical interplanetary launch window for Magellan, STS-29 Commander Michael Coats, Pilot John Blaha and Mission Specialists James Bagian, Robert Springer and James Buchli rode *Discovery's* towering column of thrust and smoke on a near-perfect launch beginning at 8:57 a.m. CST Monday.

After accepting a two-week delay for replacement of the three main engines' high pressure oxidizer turbopumps, *Discovery* and her crew had to endure one last nearly two-hour delay. The Monday launch...was pushed back by ground fog and unfavorable upper level winds.

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Astronauts Norm Thagard and Bonnie Dunbar arrived in Russia on Feb. 24 heralding the start of a new era in U.S./Russian space cooperation.

The two shuttle veterans are beginning a year of intensive training at the Russian cosmonaut training center in Star City as primary and backup crew members for the launch of the Mir 18 flight, currently targeted for March 1, 1995. Thagard is a member of the primary crew, with Dunbar a member of the backup flight team.

New program lets business owners tap into NASA technology

For 40 years, NASA technology has fueled America's space programs and produced numerous commercial products. Now, a new program helps owners of local small businesses tap into NASA's technology to solve technical problems.

The Space Alliance Technology Outreach Program (TOP) offers business owners a chance to team up with engineers, scientists and technicians in the aerospace industry. The program, a partnership among NASA, the Clear Lake Area Economic Development Foundation, local universities, aerospace contractors and other organizations, pairs business owners with a team of scientists and engineers. The program was kicked off last November.

Cathy Kramer, a NASA manager with decades of experience in engineering problem-solving, is taking a one-year break from her usual duties at JSC to direct the program. Prior to this new assignment, she managed JSC's Biomedical Hardware Development and Engineering Office and served as chief of the Life Sciences Project Division.

After Kramer completes her term as executive director of TOP, another NASA employee will head the program. Plans call for the program to focus on business owners in the Clear Lake area during the first year, then expand to businesses in the Houston area during the second year and finally go statewide by the third year. Once the program reaches its third year, the Texas Department of Economic Development will manage it.

"Some of the best minds in the world have solved problems for NASA," Kramer says. "Through TOP, those same people are available to help small businesses with their technical problems. We have a vast universe of technology just waiting to be used in the private sector."

The process is simple, Kramer says. Interested business owners need to complete and submit a form to request technical assistance. If the request is accepted, a NASA project team will be assigned to the problem. Business owners may receive up to 40 hours of personnel time free of charge.



JSC Photo S99-02376 by James Blair

David Williams, left, and Cathy Kramer, executive director of the Space Alliance Technology Outreach Program, check out the latest version of the Perigard, the device which he invented to keep his catheter dry in the shower while he underwent chemotherapy. The device, developed with the help of NASA, uses a combination of foam and an epoxy NASA uses on its launch and re-entry helmets.

According to Kramer, the program won't do any work that can be done by consultants in the private sector. If a business can receive technical assistance through other businesses, NASA will recommend seeking a commercial solution.

TOP has been a tremendous success in Florida for the past three years, generating some \$14 million in sales revenues for local businesses. NASA has solved more than 600 technical problems for businesses there, saving or creating more than 100 jobs in the process. In Florida, TOP has

tackled challenges as diverse as helping a mulch company solve a conveyor belt problem to helping another firm find methods to make prosthetic limbs fit better.

Although few requests for assistance have been submitted from Clear Lake area business owners, one success story has already been documented.

Like many patients undergoing chemotherapy, David Williams struggled with keeping the central venous catheter in his arm dry. He had to wrap a plastic bag around his arm whenever he took a shower to keep it dry and prevent infection.

After visiting JSC during Inspection 98, Williams met with Kramer and the TOP team to begin researching the problem. A solution was found within one week: a water-

resistant foam used on shuttle astronauts' launch and re-entry helmets. When paired with an epoxy that NASA uses, the foam provided just what Williams needed to stop moisture leaks.

An economic impact commercialization model for Williams' product is being conducted to determine the marketability of the product to medical supply distributors.

For more information on the program, call Cathy Kramer at 281-486-5535. ■

St. Thomas' Episcopal Pipe Band to perform at JSC

JSC will host the St. Thomas' Episcopal School Pipe Band on March 17 for the annual St. Patrick's Day celebration. The pipe band will perform at the Bldg. 3 cafeteria. JSC and contractor employees are encouraged to attend the performance as their workload permits.

In August 1998, the St. Thomas' Episcopal School Pipe Band won its third Juvenile World Pipe Band Championship, establishing it as one of the premier pipe bands in the United

States. First founded in 1962, the band is a popular performer at local and national events, including playing for several presidents and for the queen of England.

The band's biggest local performance is its annual Scottish Festival held in March at the Compaq Center. The band, along with about 150 Scottish dancers from St. Thomas', puts on a two-hour Edinburgh tattoo style extravaganza and features the "champion" highland dancers. ■

TICKET WINDOW

EAA events

The Little Mermaid on Ice
Saturday, April 3, 12 noon
\$13.00

Exchange Store hours

Monday-Friday

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

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

For details, 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
Astroworld Early Bird (valid through May 31)	\$17.75
Astroworld One-day Admission	\$21.00
Astroworld Season Pass (valid at all Texas Six Flags Theme Parks and Water World)	\$54.75
Water World	\$10.75
Moody Gardens (2 of 6 events)	\$9.75
Schlitterbahn Water Park	adult...\$20.75 child (3-11)...\$17.50
Space Center Houston	adult...\$10.25 child (4-11)...\$6.50 (JSC civil service employees free.)
Space Center Houston Annual Pass	\$18.75
Splash Town Water Park	adult...\$14.50 (child 48" and under)...\$11.50

All tickets are non-refundable. • Metro tokens and value cards are available.

ROUNDUP

Frosch, Yardley cover new space technology in STS development

