



Space News Roundup

Vol. 35

November 1, 1996

No. 43

Blaha, Lucid agree cooperation key to success

Cosmonaut Researcher John Blaha and former Researcher Shannon Lucid agree that the success of long-duration space flights depends not on equipment, but on the people involved with the mission.

As Blaha and his crew mates continued living and working on the Russian Mir Space Station, both he and Lucid spoke about work on the station last week. Lucid summed up her record-setting stay with what she said was the take-home lesson.

"I think the most important thing for success on a long-duration space

flight... it's not the hardware, it's not your science experiments, it's the people you fly with," Lucid said.

Blaha and his Mir 22 crew mates, Commander Valery Korzun and Flight Engineer Alexander "Sasha" Kaleri, agreed with Lucid that the people make a flight successful.

"It's beyond my expectations," Blaha said. "This is an incredible space station. I am very impressed with it, I'm very impressed with Valery and Sasha, the work they do here.... They're incredible cosmonauts."

Blaha's commander had similar praise for the American.

"He (Blaha) is an excellent person, a good specialist, an outstanding astronaut, a wonderful investigator, so (we) have no problems with our crew, neither with the Russian or American sides," Korzun said.

The experiences and remarks of both the past and current crews of this joint effort in space demonstrate time and again how remarkable it is that fears of the past have given way to friendships and working relationships which are helping to advance

all mankind, they said.

"It dawned on all three of us at once how remarkable it was that here we were, three people who grew up in totally different parts of the world, mortally afraid of each other," Lucid said. "Here we were sitting in an outpost in space together, working together and getting along just great. That was a remarkable revelation to the three of us. We never could have planned that."

Blaha and Lucid also agreed that international cooperation should not end with the space stations, but

should continue into the future with the human exploration of Mars.

"I think that people should realize that long-duration space flight is possible," Lucid said. "It's a very positive experience. From a very personal standpoint... I would like people to think that human beings being in space for a long time is no impediment, like for a trip to Mars."

"Once a day I take some time to go on a dark pass to look at the planets," Blaha said. "Every time I look at Mars I say 'we ought to go, Please see **LINENGER**, Page 4

Some workers may take off to vote

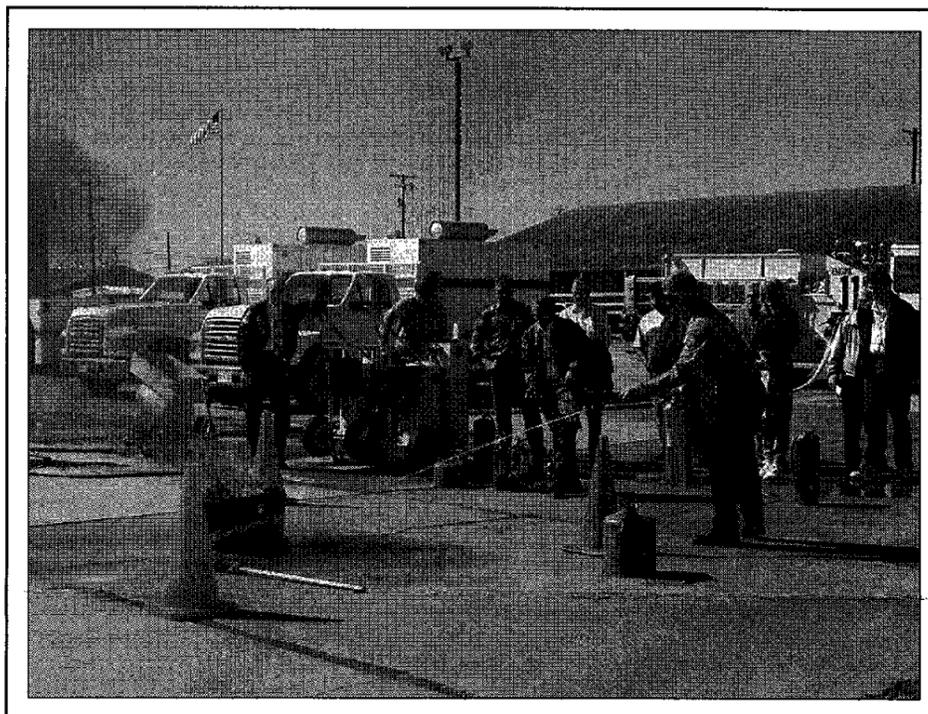
Tuesday is election day, and JSC employees whose work schedules conflict with their ability to vote have the options of excusing themselves for a reasonable time to visit the polls if their absence will not seriously interfere with operations.

Valerie Michaud of JSC's Human Resources Office said that as a general rule, where the polls are not open at least three hours before or after an employee's regular hours of work, that employees may have an excused absence that will permit them to report for work three hours after the polls open or leave work three hours before the polls close.

Because the polls in Texas open at 7 a.m. and close at 7 p.m., this policy means that employees who work from 8 a.m.-4:30 p.m. may be granted half an hour, and that those who work from 8:30 a.m.-5 p.m. may be granted an hour.

Employees on irregular (first 40-hour) tours of duty may be granted up to an hour excused absence for voting purposes as long as the leave

Please see **FEDERAL**, Page 4



JSC Photo by Robert Markowitz

Bo Atkinson and other members of the Ellington Field Fire Department give live demonstrations on the best techniques for extinguishing fires during Safety and Total Health Day. The Fire Department also demonstrated how to extinguish jet fuel fires and other types of combustibles.

Managers still eyeing Nov. 8 launch

By James Hartsfield

Following a Monday flight readiness review, shuttle managers maintained the option of launching *Columbia* as early as Nov. 8 on STS-80, but deferred setting a firm date for one week to allow further analysis of a solid rocket motor nozzle erosion seen after STS-79.

Managers plan to reconvene Monday to discuss the results of the nozzle erosion problem's continuing analysis, and will decide at that time whether to proceed with a Nov. 8 launch.

During post-flight inspections of the STS-79 solid rockets, technicians noted about 60 deeper-than-normal pits and accompanying troughs in the carbon composite insulation of the right rocket nozzle. The carbon composite was determined not to have worn enough to pose any threat to STS-79, however engineers began an analysis of the pitting and erosion. Preliminary findings indicated that even with the phenomena seen on STS-79, sufficient safety margins could exist, although the investigation remains inconclusive at present.

Meanwhile, Kennedy Space Center technicians continue to prepare *Columbia* at Launch Pad 39B, completing checks of the payload connections with interface verification test for ORFEUS-SPAS and the Wake Shield Facility. Work also began to close out *Columbia's* engine compartment. The STS-80 crew—Commander Ken Cockrell, Pilot Kent Rominger and Mission Specialists Tammy Jernigan, Tom Jones and Story Musgrave—will fly to KSC Monday if the "go" is given for a Nov. 8 liftoff, and countdown would begin at noon CST on Tuesday with a launch at 1:47 p.m.

Elsewhere, work continues in the Bay 3 shuttle hangar to prepare *Atlantis* for a launch in mid-January on STS-81, the fifth shuttle-Mir docking. Work this week included installation of the drag chute, functional testing of the docking system and tests of the two auxiliary power units. Early next week, work will begin to install *Atlantis'* three main engines. In the Vehicle Assembly Bldg., the two STS-81 solid rockets have been stacked and are ready for mating.



Goldin reemphasizes non-discrimination policy

NASA Administrator Daniel S. Goldin is continuing to champion cultural diversity in the agency's work force, and recently issued a statement explaining NASA's policy prohibiting discrimination.

"I am personally committed to achieving and ensuring a workplace that is free of discriminatory treatment and harassment on the basis of race, sex, ethnicity, sexual orientation, color, religion, age, disability or any other nonmerit-based factor," Goldin said. "There is no place in our work environment for discriminatory actions of any kind. My personal commitment to diversity, equality and nondiscrimination is long-standing and nonnegotiable."

"All NASA managers and employees have a responsibility to uphold this policy. Each employee must be personally

accountable for his or her performance in ensuring and promoting equal opportunity principles and in recognizing diversity as a source of strength for NASA. Moreover, managers and employees alike must work together to ensure a workplace free from any form of discrimination or sexual harassment," Goldin continued.

"Both discrimination and harassment are violations of the law as well as the policies of this agency. If you feel you have been the victim of discrimination or harassment, there are a variety of remedies available for redress, based upon the specific facts of the particular incident. Contact your supervisor, local equal employment opportunity office, local union representative, or servicing personnel office for assistance.

"To assist with compliance, the personnel, equal employment opportunity, and legal staffs will continue to educate employees about NASA's nondiscrimination policy and inform them about the various procedures available to safeguard their rights," Goldin said.

"However, our commitment must go far beyond mere compliance with the law. I am requesting the support of all managers in welcoming responsibility for nurturing and capitalizing on the very best that every employee has to give. I am also asking all employees to understand that a diverse workplace means a better NASA."

For more information, contact JSC's Equal Opportunity Programs Office at x30600, or the Human Resource Office at x36251.

Mars Surveyor launches Wednesday

NASA's Mars Global Surveyor—one of three missions to Mars that will begin exploring Earth's planetary neighbor—is scheduled for launch Wednesday.

The Surveyor, carrying six scientific instruments to study the atmosphere, surface and interior of Mars, is set to launch at 11:11 a.m. CST Wednesday.

The launch marks the next step in Mars exploration which, according to scientists, is to obtain an overview and to verify remote observations with measurements taken from the ground. Surveyor is designed to study the atmosphere, surface and interior systematically over a full Martian year.

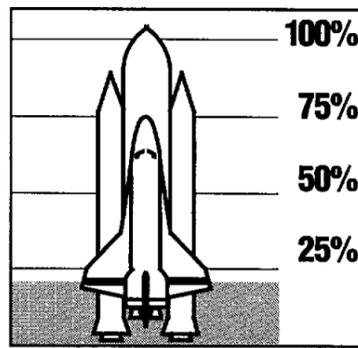
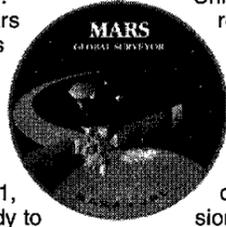
Surveyor will arrive at Mars on Sept. 11, 1997. By March 1998, the orbiter will be ready to begin data collection, compiling a systematic database as it surveys the Martian landscape and photographs unique features, such as the polar caps and Mars' network of sinuous, intertwining river channels.

Surveyor will be followed by two additional orbiters later this year. Russia's Mars '96, an orbiter carrying

12 instruments plus two small landers and two penetrators, is scheduled for launch Nov. 16, with NASA's Mars Pathfinder, carrying a lander and small rover robot, set to lift off Dec. 2.

Launch of the spacecraft begins a new initiative by the United States to send pairs of spacecraft to the red planet every 26 months through 2005. NASA's new decade-long program of robotic exploration—known as the Mars Surveyor program—takes the next step in expanding scientists' knowledge of Mars. The unifying theme of the Mars program is the search for water, which is a key requirement for life, a driver of climate and a vital resource. Early missions will focus partially on finding and understanding the past and present state of water on Mars.

Mars Global Surveyor and Mars Pathfinder will be the forerunners in this quest, leading a series of missions that may culminate in the first few years of the next century with robotic return of a Martian soil sample to Earth, followed by eventual human exploration.



1996 GOAL: \$460,000



Safety concerns prompt traffic policy changes

JSC is revising its drivers' handbook this week, and, due to an increased number of deer/vehicle accidents, the Avenue B speed limit will be decreased to 35 mph today.

The new Vehicle Code, effective today, realigns point assessment for most violations, updates most traffic safety rules and includes violations to account for Texas traffic laws not previously covered.

According to Security, the Avenue B speed limit reduction is designed to increase driver reaction time, and, therefore, the probability of safety to both the employees and the resident wildlife. Upon entering Gate 4 the

Please see **VEHICLE**, Page 4

Ticket Window

The following discount tickets are available for purchase in the Bldg. 11 Exchange Store from 10 a.m.-2 p.m. Monday-Thursday and 9 a.m.-3 p.m. Friday. For more information, call x35350 or x30990.

EAA Christmas dinner/dance: The EAA Christmas dinner dance will be at 7:30 p.m. Dec. 14 at the Gilruth. Tickets cost \$25 per person.

EAA Spring Break Special to Rome: March 8-15, \$1,099 double occupancy. \$200 deposit required. Final payment due Jan. 8.

Texas Renaissance Festival: Weekends through Nov. 17. Tickets cost \$11.50 for adults and \$5.25 for children 5-12.

Fall concert: Tickets are now on sale for the Bay Area Chorus performance at 8 p.m. Nov. 15 at the UHCL Bayou Auditorium. Cost is \$10 for adults and \$5 for students and seniors.

EAA Belize Resort Trip: Available through Dec. 15. Cost is \$472 per person double occupancy. \$100 deposit required with final payment due 30 days before departure.

EAA Caribbean Getaway Cruise to Puerto Rico: Jan. 3-13, \$1,198 double occupancy with airfare, \$999 cruise only. Final payment due Nov. 4.

Sam Houston Race Park Track Pack: \$10 value pack for \$5.25, includes Club Level seating, program, tip sheet, admission, preferred parking and gift shop discount.

Space Center Houston: Adult \$8.75; children (4-11) \$6.25, annual membership \$25.95, family membership (up to four) \$59.95.

Movie discounts: General Cinema, \$4.75; AMC Theater, \$4.50; Sony Loew's Theater, \$4.75.

Franklin Planner refills: now taking orders for 1997 calendars.

Sweetwater Pecans: \$5.65 per pound. Orders should be place by Nov. 8 for the Nov. 18 delivery, or Nov. 29 for the Dec. 5 delivery.

Stamps: Book of 20, \$6.40.

Entertainment '97 books: Cost is \$25.

Metro tickets: Passes, books and single tickets available.

Gilruth Center News

EAA badges: Dependents and spouses may apply for photo identification badges from 7:30 a.m.-9 p.m. Monday-Friday; and 8 a.m.-4 p.m. Saturdays. Cost is \$5. Dependents must be between 16 and 23 years old.

Hatha Yoga: A stress relieving, stretching and breathing exercise routine to unite body, mind and spirit.

Nutrition intervention program: A six-week program to learn more about the role diet and nutrition plays in health, including lectures, private consultations with a dietitian and blood analysis. Program is open to all employees, contractors and spouses. For more information call Tammie Shaw at x32980.

Defensive driving: One-day course is offered once a month. Pre-registration required. Cost is \$25.

Stamp club: Meets at 7 p.m. every second and fourth Monday in Rm. 216.

Weight safety: Required course for employees wishing to use the weight room will be offered from 8-9:30 p.m. Nov. 5 and Nov. 19. Pre-registration is required. Cost is \$5.

Exercise: Low-impact class meets from 5:15-6:15 p.m. Mondays and Wednesdays.

Aikido: Martial arts class meets from 5:15-6:15 p.m. Tuesday and Wednesday. Cost is \$35 per month. New classes begin the first of each month.

Aerobics: Classes meet every Monday, Tuesday and Thursday.

Ballroom dancing: Cost is \$60 per couple. For additional information call the Gilruth Center at x33345.

Country and Western dancing: Beginner class meets 7-8:30 p.m. Monday. Advance class meets 8:30-10 p.m. Monday. Cost is \$20 per couple.

Fitness program: Health Related Fitness Program includes a medical examination screening and a 12-week individually prescribed exercise program. For more information call Larry Wier at x30301.

Swap Shop

Swap Shop ads are accepted from current and retired NASA civil service employees and on-site contractor employees. Each ad must be submitted on a separate full-sized, revised JSC Form 1452. Deadline is 5 p.m. every Friday, two weeks before the desired date of publication. Ads may be run only once. Send ads to Roundup Swap Shop, Code AP2, or deliver them to the deposite box outside Rm. 181 in Bldg. 2. No phone or fax ads accepted.

Property

Rent: Cloisters on Space Center, 2-story condo, 1-1.5, FPL, W/D, fans, resvd carport, patio, security gates, pool, free cable, \$545/mo. 212-1377 or 486-0513.

Sale: Friendswood Imperial Estates II, custom brick 2 story, 3250 sq ft, 4-3-3, formal LR/DR, family room w/FPL, game room, .6 acre wooded lot, reduced \$175k. Owner, 482-1535.

Sale: Galveston historic home (1857), twice on Homes Tour, cover of "Houston Home and Gardens", 3 BDR, 2500 sq ft, 12 ceilings, 3 FPL's, \$145k. 409-762-4171.

Sale/Lease: University Trace condo, 1-1-1CP, W/D, refrig, ceiling fans, new carpet/paint, \$27k/\$450 mo. x46738 or 554-2619.

Sale: League City, 3-2-2 split plan, no MUD tax, 1486 sq ft, many upgrades, cov'd patio, lg corner lot, \$84k. 486-6661.

Sale: El Dorado Way condo, 2-2, W/D area, security system, wet bar, cov'd parking, \$42k. 480-8381.

Rent: Baywind condo, 2-2, ceiling fans, W/D conn, \$550 mo. x47326 or 486-9673.

Sale: Lake Livingston house, 1.5 story, 3-2-1, Cape Royale w/lake view, near sm waterfront park w/sandy beach and bulkhd, includes most furn, new paint inside/outside, carpet, reduced \$69.5k. 488-4487.

Sale: 40 prime acres, house, barn, 15 mi East of Tyler, all amenities, \$120k. 488-5058.

Rent: Condo in Winter Park, CO, near ski area 2-2, furnished, hot tub & pool, sleeps 6. 488-4453.

Rent: Lake Travis cabin, private boat dock, central air/heat, fully equipped, sleeps 8, winter \$550 w/ky/\$120 dly. 474-4922.

Cars & Trucks

Sale: '93 Prowler 5th wheel trailer, 27-5N, loaded, ex cond, w/Reese hitch, \$11.3k obo. 470-8306.

'89 Chevy Suburban, ex cond, new tires, cold air, \$6.5k. Marion Pringle, x30906.

'65 Mustang, black w/white interior, A/C, 289 engine, good cond, runs well, \$5k. Pat, x47979 or 286-2747.

'88 Ford Crown Victoria LX, fully loaded, white ext, gray inter, velour seats, 70k mi, ex cond, \$4k. Speier, 333-2263.

'94 Honda Accord LX, ex cond, 4 cyl, white ext/int cloth inter, auto, 4 dr, ABS, dual airbags, pwr, AM/FM/cass/CD, \$15.5k obo. Gus, x33425 or 286-3402.

'89 Hyundai Excel GL 4 dr, 58k mi, 4 cyl, 5 spd, A/C, ex cond, \$2k. Pete, 283-6813 or 482-5573.

'89 Honda Accord, fully loaded, 4 dr, \$5.5k. 409-925-7869.

'88 Plymouth Voyager, all options, includes rear air, 99k mi, \$4.5k obo. x47326 or 486-9673.

'92 Ford Taurus, ex cond, \$8.4k. 334-3066.

'82 Oldsmobile Delta 88, 4 dr, V8 engine, clean & dependable, \$1,295 obo. Tom, 244-9775.

'80 Pontiac Bonneville, 4 dr, diesel, good body, engine, tires, transmission needs work, \$605 obo. Tom, 244-9775.

'91 Acura Legend, 4 dr, leather, sunroof, new tires, ext warranty, 69k mi, \$14.5 obo. x30126.

'87 Mazda RX-7 Turbo, high performance exhaust and computer, 16" racing wheels, sunroof, all access, adult owned, \$3.9k obo. Tom, 244-9775.

'88 Lincoln Town Car, 79k mi, garaged kept, ex cond, \$5.9k x33187 or 488-5162.

'72 Buick, 4 dr classic, very clean, new paint, 110k mi, have maintenance records, runs great, \$3,995. Jim, x38624 or 487-7132.

'86 Pontiac Fiero, parting out entire car, everything except drive train, doors/hood/sunroof/fenders, etc., make offer. Keith, x35191 or 996-8318.

'86 Pontiac Fiero, parting out entire car, everything except drive train, doors/hood/sunroof/fenders, etc., make offer. Keith, x35191 or 996-8318.

'86 Pontiac Fiero, parting out entire car, everything except drive train, doors/hood/sunroof/fenders, etc., make offer. Keith, x35191 or 996-8318.

'86 Pontiac Fiero, parting out entire car, everything except drive train, doors/hood/sunroof/fenders, etc., make offer. Keith, x35191 or 996-8318.

'86 Pontiac Fiero, parting out entire car, everything except drive train, doors/hood/sunroof/fenders, etc., make offer. Keith, x35191 or 996-8318.

'86 Pontiac Fiero, parting out entire car, everything except drive train, doors/hood/sunroof/fenders, etc., make offer. Keith, x35191 or 996-8318.

'86 Pontiac Fiero, parting out entire car, everything except drive train, doors/hood/sunroof/fenders, etc., make offer. Keith, x35191 or 996-8318.

'86 Pontiac Fiero, parting out entire car, everything except drive train, doors/hood/sunroof/fenders, etc., make offer. Keith, x35191 or 996-8318.

'86 Pontiac Fiero, parting out entire car, everything except drive train, doors/hood/sunroof/fenders, etc., make offer. Keith, x35191 or 996-8318.

'86 Pontiac Fiero, parting out entire car, everything except drive train, doors/hood/sunroof/fenders, etc., make offer. Keith, x35191 or 996-8318.

'86 Pontiac Fiero, parting out entire car, everything except drive train, doors/hood/sunroof/fenders, etc., make offer. Keith, x35191 or 996-8318.

'86 Pontiac Fiero, parting out entire car, everything except drive train, doors/hood/sunroof/fenders, etc., make offer. Keith, x35191 or 996-8318.

'86 Pontiac Fiero, parting out entire car, everything except drive train, doors/hood/sunroof/fenders, etc., make offer. Keith, x35191 or 996-8318.

'86 Pontiac Fiero, parting out entire car, everything except drive train, doors/hood/sunroof/fenders, etc., make offer. Keith, x35191 or 996-8318.

'86 Pontiac Fiero, parting out entire car, everything except drive train, doors/hood/sunroof/fenders, etc., make offer. Keith, x35191 or 996-8318.

'86 Pontiac Fiero, parting out entire car, everything except drive train, doors/hood/sunroof/fenders, etc., make offer. Keith, x35191 or 996-8318.

'86 Pontiac Fiero, parting out entire car, everything except drive train, doors/hood/sunroof/fenders, etc., make offer. Keith, x35191 or 996-8318.

'86 Pontiac Fiero, parting out entire car, everything except drive train, doors/hood/sunroof/fenders, etc., make offer. Keith, x35191 or 996-8318.

'86 Pontiac Fiero, parting out entire car, everything except drive train, doors/hood/sunroof/fenders, etc., make offer. Keith, x35191 or 996-8318.

'86 Pontiac Fiero, parting out entire car, everything except drive train, doors/hood/sunroof/fenders, etc., make offer. Keith, x35191 or 996-8318.

'86 Pontiac Fiero, parting out entire car, everything except drive train, doors/hood/sunroof/fenders, etc., make offer. Keith, x35191 or 996-8318.

'86 Pontiac Fiero, parting out entire car, everything except drive train, doors/hood/sunroof/fenders, etc., make offer. Keith, x35191 or 996-8318.

'86 Pontiac Fiero, parting out entire car, everything except drive train, doors/hood/sunroof/fenders, etc., make offer. Keith, x35191 or 996-8318.

'86 Pontiac Fiero, parting out entire car, everything except drive train, doors/hood/sunroof/fenders, etc., make offer. Keith, x35191 or 996-8318.

Dates & Data

Today

Cafeteria menu: Special: meat sauce and spaghetti. Total Health: baked potato. Entrees: rainbow trout, liver and onions, beef cannelloni, ham steak, fried cod fish, Reuben sandwich. Soup: seafood gumbo. Vegetables: steamed broccoli, breaded okra, cut corn, black-eyed peas.

Monday

Cafeteria menu: Special: turkey and dressing. Total Health: herb flavored steamed pollock. Entrees: breaded veal cutlet, chicken fajitas, steamed pollock, beef, French dip sandwich. Soup: beef and barley. Vegetables: Brussels sprouts, mixed vegetables, egg plant casserole, winter blend vegetables.

Tuesday

ASQC meets: The Bay Area Section of the American Society for Quality Control will meet at 5:15 p.m. Nov. 5 at the Ramada King's Inn, 1301 NASA Road 1, Clear Lake. Ann Dorris will provide a tutorial on "What are the Basics of Software Quality," and Wali Alam will discuss "Raising the Bar: Implement ISO 9000 for Yourself." Dinner is \$9. Reservations are not required. For more information call Ray Swindle at 335-6948.

Cafeteria menu: Special: pepper steak. Total Health: barbecue chicken. Entrees: baked lasagna, pork chop and fried rice, turkey a la king, baked chicken, fried cod fish, French dip sandwich. Soup: black bean and rice. Vegetables: breaded squash, steamed spinach, baby carrots, navy beans.

Wednesday

Spaceland Toastmasters meet: The Spaceland Toastmasters will meet at 7 a.m. Nov. 6 at the House

of Prayer Lutheran Church. For more information call Jeannette Kirinich x45752.

Spaceteam Toastmasters meet: The Spaceteam Toastmasters will meet at 11:30 a.m. Nov. 6 at United Space Alliance in the Civic Room at 600 Gemini. For more information call Pat Blackwell at 282-4302 or Ben Black 282-4166.

AIAA luncheon: The American Institute of Aeronautics and Astronautics' History and Heritage committee will hold a brown bag luncheon at 11:30 a.m. Nov. 6 in Bldg. 4S, Rom. 3419. David Talent will discuss "A Partial History of Orbital Debris: Expectations for Growth from a Simple Particle-in-a-Box Model."

Astronomy seminar: The JSC Astronomy Seminar will meet at noon Nov. 6 in Bldg. 31, Rm. 129. An open discussion meeting is planned. For more information call Al Jackson at x35037.

NMA class: The Texas Gulf Coast Council of National Management Association is hosting a 10-hour money management seminar from 6-9 p.m. Nov. 6 and 13 at 2400 NASA Road 1. Cost is \$50 per couple for members and \$75 per couple for nonmembers. For more information call Richard Hergert at 280-0444.

Cafeteria menu: Special: Mexican dinner. Total Health: steamed pollock. Entrees: broccoli cheese quiche, spare ribs and sauerkraut, steamed fish, Reuben sandwich. Soup: seafood gumbo. Vegetables: Spanish rice, pinto beans, peas, broccoli.

Thursday

Warning system test: The site-wide Employee Warning System will undergo its monthly audio test at noon Nov. 7. For more information call Bob Gaffney at x34249.

SSQ meets: The Society for Software Quality Clear Lake Chapter will meet at 6 p.m. Nov. 7 at Ramada King's Inn, 1301 NASA Road 1. John Arnold, chief of Information Systems Directorate for JSC, will discuss "Application Development in a Performance Based Contract World." Cost is \$10 with a reservation. For more information call David Walker at 333-3703.

Cafeteria menu: Special: hamburger steak with onion gravy. Total Health: baked potato. Entrees: corned beef, cabbage and new potatoes, chicken and dumplings, meat ravioli, French dip sandwich. Soup: broccoli cheese and rice. Vegetables: navy beans, cabbage, cauliflower, green beans.

Friday

Astronomers meet: The JSC Astronomical Society will meet at 7:30 p.m. Nov. 8 at the Lunar & Planetary Institute 3600 Bay Area Blvd. For more information call Chuck Shaw at x35416.

Cafeteria menu: Special: tuna noodle casserole. Total Health: broiled chicken breast. Entrees: deviled crabs, broiled pollock, liver and onions, broiled chicken with peach half, Reuben sandwich. Soup: seafood gumbo. Vegetables: Italian green beans, cauliflower au gratin, steamed rice, vegetable sticks.

Nov. 12

ABWA meets: The American Business Women's Association, Clear Lake Area Chapter will hold a Christmas auction to benefit the chapter's scholarship fund at 5:30 p.m. Nov. 12 the Gilruth Center. Justice of the Peace Steve Phelps will serve as auctioneer. Cost is \$11 and includes dinner and auction. Reservations are required. For details and to make reservations call Rachael Jenkins at 480-7802.

Pioneer KEH-M7500 car radio/cass deck, detachable face, CD changer controls, many features, \$150; Pioneer CDX-M30 CD 6 disc changer, FM modulator, \$200 or \$300 for both w/o modulator. Lisa, x40213 or 992-7302.

486 DX33, 8Mb RAM, 270Mb HD, 51/4 + 3.5 FD's, SVGA monitor, \$400. Charles, x36422 or 326-5073.

Phonemate telephone w/answering machine, \$10. x47669.

Texas Instruments Advanced Scientific TI-81 graphics calculator, over 300 functions, ex cond, \$50. Anne, x41044.

Telephone systems, 1 twelve line NEC system w/transceiver and 12 phone sets, \$950; 2 stand alone Panasonic phones, w/answering system and built-in speaker, \$70; 10-channel auto-scan cordless 16 station auto dialer, \$60. x32920 or 610-9282.

Compaq computers, 1 Prosignia PC-server 486/66 12Mb RAM, 240Mb HD w/keyboard, \$900; 1 Deskpro/i 486, 4Mb RAM/240Mb HD w/many interface cards and keyboard, \$550. x32920 or 610-9282.

486/33, 4Mb RAM, 170Mb HD, SVGA w/1Mb video RAM, 14.4 fax/modem, 16 bit soundcard w/speakers, 4X CD ROM, 3.5 and 5 1/4 floppies, \$500. x30712 or 992-3849.

NEC Pentium, 60Mhz, 8 Mb RAM, CD ROM, 60Mb HD, monitor, \$1.2k. 706-1541.

Mac Performa 466, 16Mb HD, 12Mb RAM, monitor, w/modem, \$600; Centris 650 CD, Apple Ergonomic keyboard, internal CD ROM, 16Mb RAM, 230Mb HD, sound, Ethernet, \$1k. Dennis, x39012, 992-5285.

Panasonic phone recorder, ex shape, \$15. Jim, x20411 or 480-2646.

Mac Performa 466, 16Mb HD, 12Mb RAM, monitor, w/modem, \$600; Centris 650 CD, Apple Ergonomic keyboard, internal CD ROM, 16Mb RAM, 230Mb HD, sound, Ethernet, \$1k. Dennis, x39012, 992-5285.

Panasonic phone recorder, ex shape, \$15. Jim, x20411 or 480-2646.

Mac Performa 466, 16Mb HD, 12Mb RAM, monitor, w/modem, \$600; Centris 650 CD, Apple Ergonomic keyboard, internal CD ROM, 16Mb RAM, 230Mb HD, sound, Ethernet, \$1k. Dennis, x39012, 992-5285.

Panasonic phone recorder, ex shape, \$15. Jim, x20411 or 480-2646.

Mac Performa 466, 16Mb HD, 12Mb RAM, monitor, w/modem, \$600; Centris 650 CD, Apple Ergonomic keyboard, internal CD ROM, 16Mb RAM, 230Mb HD, sound, Ethernet, \$1k. Dennis, x39012, 992-5285.

Panasonic phone recorder, ex shape, \$15. Jim, x20411 or 480-2646.

Mac Performa 466, 16Mb HD, 12Mb RAM, monitor, w/modem, \$600; Centris 650 CD, Apple Ergonomic keyboard, internal CD ROM, 16Mb RAM, 230Mb HD, sound, Ethernet, \$1k. Dennis, x39012, 992-5285.

Panasonic phone recorder, ex shape, \$15. Jim, x20411 or 480-2646.

Mac Performa 466, 16Mb HD, 12Mb RAM, monitor, w/modem, \$600; Centris 650 CD, Apple Ergonomic keyboard, internal CD ROM, 16Mb RAM, 230Mb HD, sound, Ethernet, \$1k. Dennis, x39012, 992-5285.

Panasonic phone recorder, ex shape, \$15. Jim, x20411 or 480-2646.

Mac Performa 466, 16Mb HD, 12Mb RAM, monitor, w/modem, \$600; Centris 650 CD, Apple Ergonomic keyboard, internal CD ROM, 16Mb RAM, 230Mb HD, sound, Ethernet, \$1k. Dennis, x39012, 992-5285.

Panasonic phone recorder, ex shape, \$15. Jim, x20411 or 480-2646.

Mac Performa 466, 16Mb HD, 12Mb RAM, monitor, w/modem, \$600; Centris 650 CD, Apple Ergonomic keyboard, internal CD ROM, 16Mb RAM, 230Mb HD, sound, Ethernet, \$1k. Dennis, x39012, 992-5285.

Panasonic phone recorder, ex shape, \$15. Jim, x20411 or 480-2646.

Mac Performa 466, 16Mb HD, 12Mb RAM, monitor, w/modem, \$600; Centris 650 CD, Apple Ergonomic keyboard, internal CD ROM, 16Mb RAM, 230Mb HD, sound, Ethernet, \$1k. Dennis, x39012, 992-5285.

Panasonic phone recorder, ex shape, \$15. Jim, x20411 or 480-2646.

Mac Performa 466, 16Mb HD, 12Mb RAM, monitor, w/modem, \$600; Centris 650 CD, Apple Ergonomic keyboard, internal CD ROM, 16Mb RAM, 230Mb HD, sound, Ethernet, \$1k. Dennis, x39012, 992-5285.

Beige Queen Anne style sofa, great cond, \$300. 486-5843.

Oriental rug, 9 x 12, \$200; 3 pc entertainment center, oak, \$500; 6 Samsonite folding chairs, \$50; Kenmore canister vacuum cleaner, \$40. Donna, x31206 or 538-1147.

Loveseat, ex cond, \$250; 2 upholstered round back chairs, nice, \$100 both; oriental style designer coffee table, ex heavy imported glass oval top, ex cond, \$350; desk, 47.5" x 28.5", white w/brass handles and trim, solid wood, \$150. 488-5564.

Queen size bed set, mattress, box springs, frame, \$100; microwave oven, over-the-stove style, good magnetron but needs new "smart board", \$20. Ed, 481-4889.

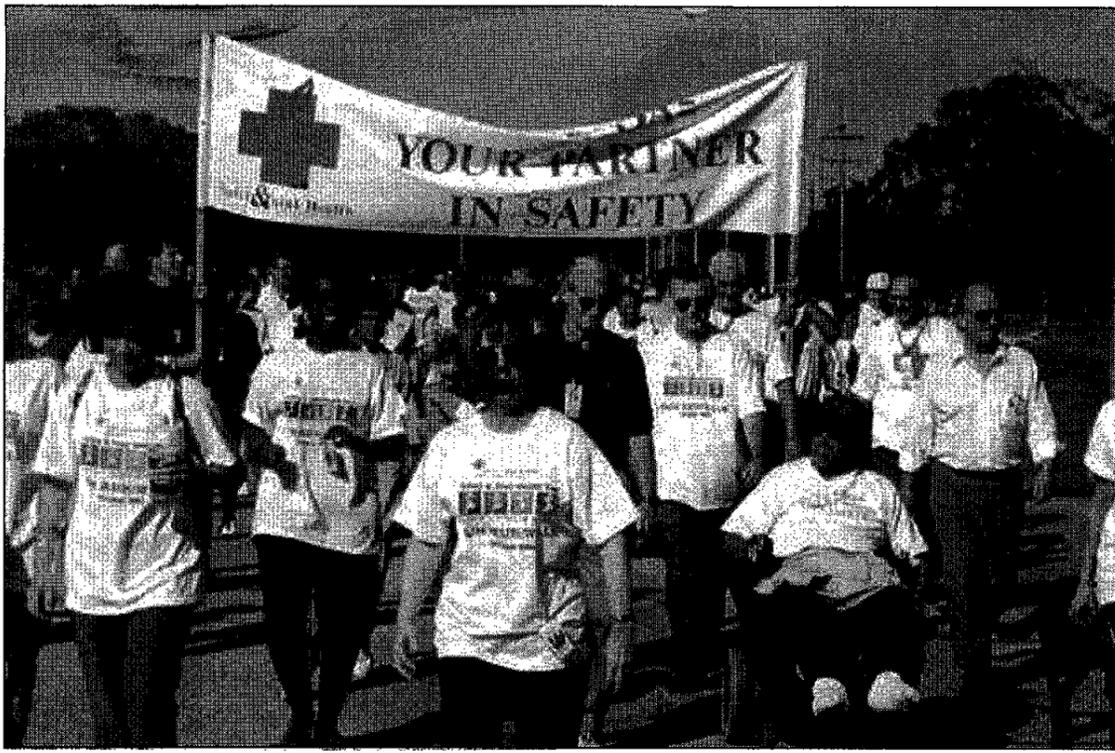
Kenmore gas heavy duty dryer, almond, good cond, \$150 cash. 480-3839.

Two crib sets, white w/mattress, ex cond, ex cond, new \$300 ea sell \$200 ea. 282-3229 or 286-4547.

Dresser, 6 drawer, \$30 obo; living room chair, \$40 obo. Lisa, x40213 or 992-7302.

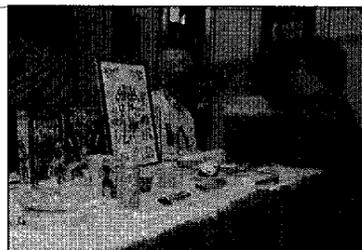
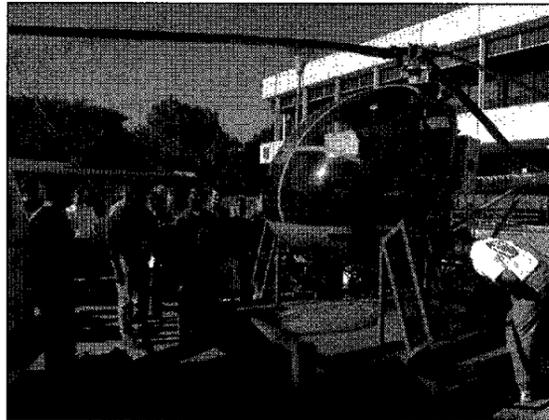
Bedroom set, full size, antique green w/dresser, 5 drawers, chest and 2 night stands, Italian design, great cond, \$850. Magdi Yassa, 333-4760 or 486-0788.

Oak dining room table, 4 dining chairs; dishwasher. 486-1888.



Sun Shines on Safety

Blue skies bring out crowd to learn safety, Total Health practices



Under blue skies and pleasant temperatures, JSC employees spent a day last week learning about a variety of safety and total health issues.

Programs around the center ranged from fire and chemical hazards to safety for children.

"Overall, the day went extremely well," said Larry Neu, chairman of the planning committee for Safety and Total Health Day. "The initial feedback I received is that managers were ready to lead their troops and had planned the day appropriately. The weather couldn't have been better. The optional activities held outside were well attended and it was great to see the employees were able to go around and visit the displays and booths that most interested them."

Early survey results show that employees enjoyed the day, but more importantly learned a great deal about safety and how to maintain or improve their health.

"Overwhelmingly, folks liked Denny Fitch," said Stacey Menard of the planning committee. "Fitch's program on the importance of teamwork during an emergency really seemed to set a good tone for the day."

Menard added that results show the majority of employees who returned a survey said their safety and health awareness had been increased and they liked the format and would welcome the same with different topics and activities next year.

"With these results, I think we accomplished what we set out to do, make employees aware of safety and health issues," Menard said.

A majority of employees did spend their time outside. From top to bottom, left to right:

1) JSC shutdown day ends with a fun run at the Gilruth Center. More than 1,000 workers participated in the 5K walk or the 2.5 K run;

2) The Employee Assistance Program confidential information on all types of life's little ups and downs;

3) Representatives from the Houston Police Department show off the police helicopter and explain the extent of protection they provide to the community;

4) The breezeway between Bldg. 4 North and South becomes one of the more popular attractions as experts give massages and ergonomic information;

5) In the Bldg. 30 lobby, employees undergo eye tests to help promote the prevention of blindness;

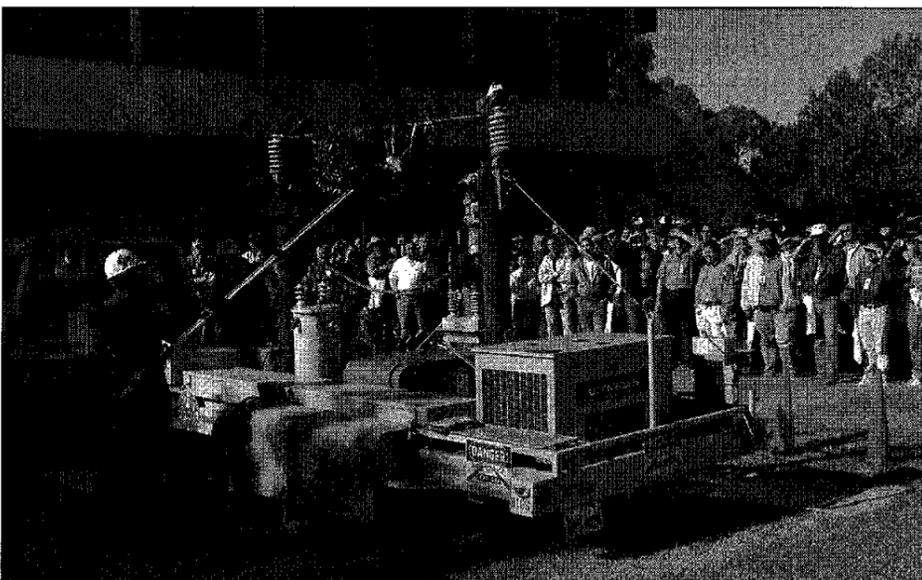
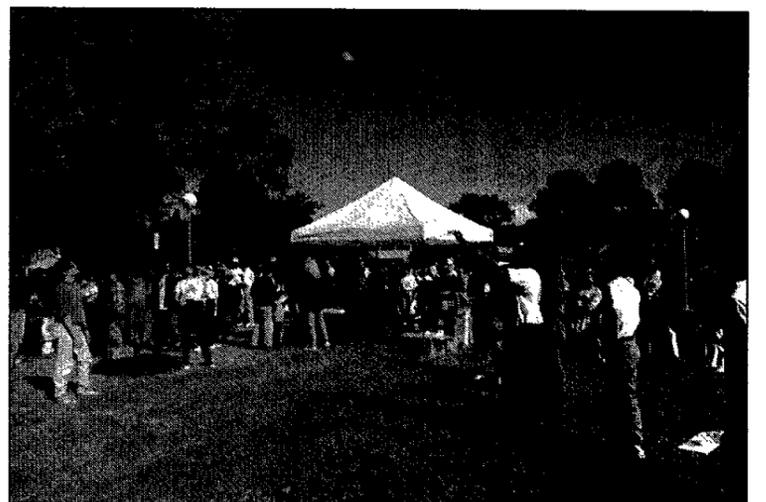
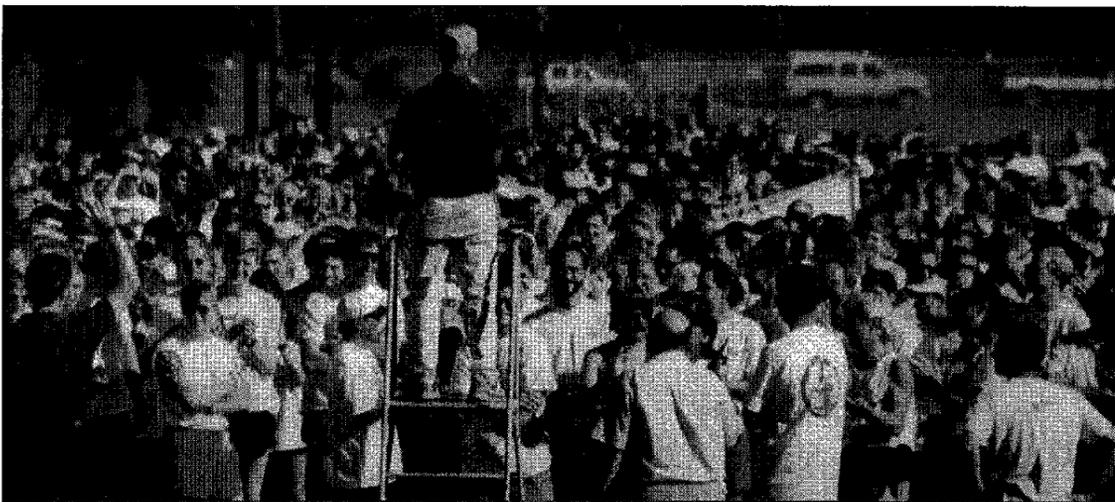
6) Employees test their blood sugar and learn how to eat with less sugar in their diets;

7) Coordinators give fun run participants last minute instructions;

8) Making three free throws in a row earns employees a free Safety and Total Health Day T-shirt;

9) Houston, Lighting and Power demonstrates with its arc truck how deadly electricity can be; and

10) Webster Bicycle provides employees with information on safe biking habits. □



JSC Education volunteers inspire Clear Creek students

Through an on-going community partnership with the Clear Creek Independent School District, volunteers from JSC's Education Outreach Program "adopted" 12 students for a day and gave them a behind-the-scenes look at their unique space-related careers.

Dina Barclay, an employee from the EVA Systems Group, was surprised to find out how much the students knew about the program.

"They knew about the KC-135, that CAPCOM is an astronaut and that Gene Kranz wore unique attire on console," Barclay said.

Liz Kalla from the Biomedical Hardware Development and Engineering Office, who co-hosted two students with Barclay, arranged for the students to see Shannon Lucid "live" at the Transfer Debriefing.

"When we passed Shannon in the hall on the way to the debrief, I told her that we were bringing some students to the debrief and hoped she didn't mind," Kalla said. "Shannon was very excited and said that it was great, and asked what school they were from."

Mike Engle from the Payload Operations Branch also was impressed

with the way JSC employees were willing to let students participate in their work activities. When Engle took the student he hosted, Randy Doss from Webster Intermediate School, to Mission Control to sit in on a simulation, the Payload Officer on console, Ben Pawlik, let him plug into the loops and even "polled" him for a "Go for sim start."

"As we were leaving, Randy told me he'd really like to work here, but he knows it's going to take a lot of hard work to be able to learn everything he needs to know to get a job with NASA," Engle said. "I think that

kind of response is exactly what we're all trying to achieve."

By hosting the students for a day, the volunteers helped JSC to meet its educational goal of capturing student interest in science, math and computer technology at an early age. Mark Mangieri, a self-proclaimed computer hacker from the Engineering Directorate's Flight Software Branch, hosted Webster Intermediate students Sang Nguyen and Eric Reed who indicated an interest in computers. Mangieri involved the students in demonstrations of his RGPS experiment and

some Internet sites that have enabled him to do his job better. Mangieri was excited to give something back to his community since he attended Webster Intermediate almost 20 years ago.

The students were part of CCISD's Career Discovery Day Program, a one-day program which permits eighth grade students from League City and Webster Intermediate Schools to shadow a professional in a career field of their choice. Employees interested in JSC's Education Outreach Program can call x32929 for information.

Three more ISO 9000 sessions set

Three additional ISO 9000 awareness seminars have been scheduled for employees who missed the first seminars.

All NASA and contractor employees are invited to attend one of the following sessions as their schedules permit. The sessions will be from 10-11 a.m. Monday, Tuesday and Nov. 12 in the Bldg. 2 Auditorium.

The seminars are designed to help employees understand what ISO 9000 is, why the center is implementing it and JSC's implementation timeline. There is no need to "sign-up" to attend a session. For more information about the seminars, call Glen Van Zandt at x33069.

NASA skiers plan trip to Steamboat

This ski season, participants of NASA Ski Week VI will be heading for Steamboat Springs over the Martin Luther King holiday, Jan. 18-25.

Steamboat Springs is located North and West of Denver, Colo., and is an excellent ski area for both the novice and advance skier. The trip includes a direct flight from Houston to Hayden, which is 20 minutes outside of Steamboat, seven nights lodging in the ski-in/ski-out hotel, a five day lift ticket, welcoming reception, banquet, fanny pack, name tag and trip brochure.

The cost varies from \$1,064 to \$1,164 per person, depending on available accommodations. Payment plans are available. Participants in this year's ski week include JSC, Kennedy, Marshall, Langely, Dryden and Goddard.

A pre-trip party will be given Nov. 9 to provide JSC participants a chance to meet others who will be going and receive additional information on the upcoming trip. There are still four spaces remaining until the early November timeframe, and a waiting list will be started after Nov. 9 in case of a cancellation. Those interested in going should contact Ron Davis at 482-5952.

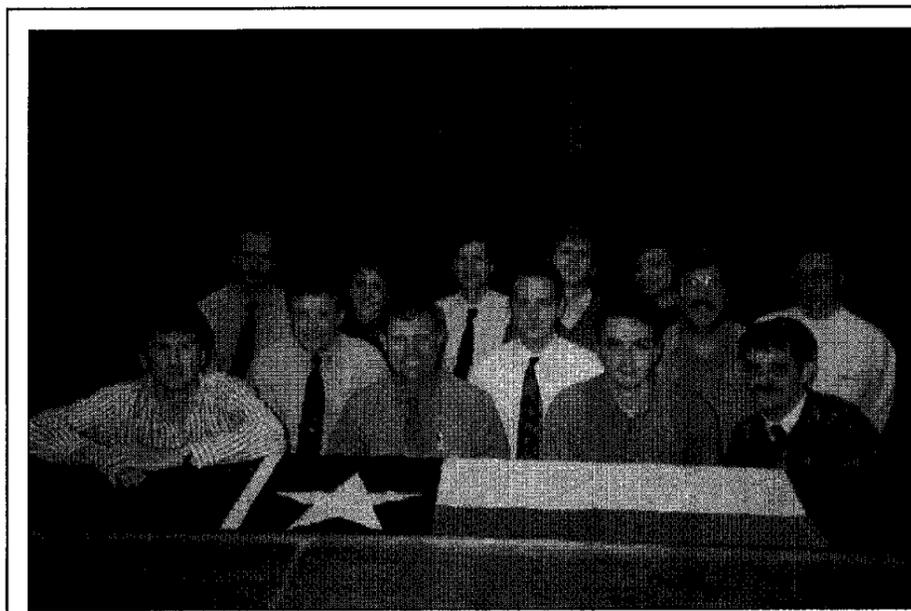


Photo by Ed Bowers

Members of the Moscow Operations Support Team that supported Shannon Lucid's record-setting mission aboard Mir from the Mission Control Center in Korolev, near Moscow, display a Texas flag to be hung in MCC-Moscow. Members of the group include third row, from left, Bill Gerstenmaier, Chris Swaider, Tom Marshburn, Andrei Biryukov, Sasha Kopteva and Sergei Poshanov. Second row, from left, are Bob Hoyt, Joe Neigut and Ed Bowers. Third row, from left, are Jeffery Cardenas, Ron Crawford, Michael Malyshev and Caasi Moore.

Lucid lauds Moscow team's work

Living in a hotel far away from home for as long as three months often isn't fun, but it becomes even more of a hardship when the language and even the alphabet are decipherable only with intensive study.

Add to that only six hours of daylight during a six-month-long winter, occasional knee-deep snow and temperatures that frequently fall below zero, and individuals can begin to understand that a strong sense of dedication is a requirement.

But despite different foods, strange surroundings and culture shock, the job itself is familiar to the JSC personnel who do it: supporting the operations of a human spacecraft from Mission Control—even if it is in Moscow.

Members of the Mission Operations Support Team in Moscow that supported Shannon Lucid's record-setting mission aboard the Mir space station typically stayed in Russia for four to six weeks on each tour of duty. The majority of them worked more than one tour during Lucid's stay, and many are now involved with John Blaha's mission aboard Mir.

"The dedication of these people is what made the mission work. I was just the tip of the iceberg, and, without them, the flight would simply not have happened. I talked to them daily as both friends and coworkers, and it was always a high point of my day," Lucid said. "I can't tell you how grateful I am to them for their efforts and what a winning team they are."

Normally, seven team members worked in Moscow at a time, working in two shifts to support the flight at least 16 hours each day. Gaylen Johnson, the lead flight surgeon for NASA 2, and Bill Gerstenmaier, the lead operations director for the mission, remained in Moscow for the majority of Lucid's time in orbit.

"Working in Moscow, team members are away from family and friends for an extended period of time, a sacrifice that exemplifies their dedication to the job. More than just being away from everyone, they are also in a foreign country, with a very different culture and different language, which can be difficult," Gerstenmaier said. "Everyone did a great job, and the teamwork is what made this mission a success."

The team recently commemorated the end of Lucid's successful flight by displaying a Texas flag donated by Texas State Sen. Buster Brown, which had flown over the Texas State Capitol on April 12, 1996, the 15th anniversary of STS-1 and also Cosmonauts' Day in Russia.

Team members not pictured in the photo included Gaylen Johnson, Pat McGinnis, Tony Sang, Kyle Herring, Ray Castillo, Mike Braukas, Kari Fluegel, Ed Campion, Dave Faram, Jack Duce, Sheddric Bradford, Susan Freeman, Russ Hartlieb, Nikail Mehta, Tommy Thompson, Danny Irvin, Tim McBride, Anita Kilgore, Tonya Sivils, Erik Shaw, Mart Carr, Kristen Maidlow and James Hartsfield.

KSC director makes plans to retire in '97

Jay Honeycutt, director of Kennedy Space Center, has announced his plans to retire from NASA in early 1997.

The longtime JSC employee's career has spanned almost the entire history of the U.S. human space flight program, beginning at the Redstone Arsenal in Huntsville, Ala., in 1960. He has been the director of KSC since January 1995.

"When I first came to this position in 1995, I committed to staying on for two years and then reassessing my plans," Honeycutt said. "Those two years are up and it's time to think about what I want to do next. I have no specific time frame in mind but will leave when the time is right and a successor is on hand."

"Jay Honeycutt has played an important role in NASA achievements for three decades," NASA Administrator Daniel S. Goldin said. "He has pursued excellence in every project with which he has been associated. This was recognized by the White House, which honored KSC with quality awards during the past two years. He will be greatly missed."

Honeycutt is the sixth KSC center director. In announcing his plans to leave NASA, Honeycutt said, "This was a very difficult decision. I am very proud to have been a part of the tremendous achievements of the agency and the contribution it has made to a better quality of life for all Americans."

Linenger to return to JSC from Russia next month

(Continued from Page 1)

we ought to go.' Without a doubt, that kind of program is good for mankind, good for all the countries on the Earth to work together."

In his sixth week aboard the space station, Blaha said he now realizes that longer flights are more effective and give a new perspective to on-orbit science.

"From a scientific viewpoint, when you see crystals growing here in microgravity, it's just incredible," Blaha said. "I think it's a shame we can't beam up lots of smart people who understand physics, chemistry and fluid dynamics so they can rapidly expand their knowledge of those particular physical and chemical processes. Of course, that's what all the science research is about."

Science on the station this week included more work on the Passive Accelerometer System. The experiment is meant to study the residual gravity on Mir by observing the motions of a small metallic ball as it travels down a narrow cylinder. Other work includes continuing Earth observations and a changeout of samples in the Biotechnology Systems cartilage growth experiment meant to study cell attachment patterns and interactions in microgravity.

Astronauts who are scheduled to travel to Mir are continuing their training at the Gagarin Cosmonaut Training Center in Star City, Russia. Jerry Linenger, set to succeed Blaha in January, is nearing the end of the Russian portion of his training and is due back at JSC in mid-December for final training with his shuttle crew mates before the launch of STS-81.

Federal employees may participate in elections

(Continued from Page 1)

does not put them in overtime.

Employees on Variable Day Schedule are not eligible for excused absence for voting because the flexibility of this work schedule.

Excused absence for voting purposes may be used only at the beginning or ending of the daily work schedule. Where an employee prefers to vote at some other time during the workday, he or she may be granted annual leave or leave without pay for that purpose.

Questions regarding absence for voting should be addressed to a Human Resources Representative or Valerie Michaud at x31057.

JSC employees also are remind-

ed that the guidelines for federal employee participation in political activities were relaxed in 1994, although Senior Executive Service employees still must abide by the stricter rules.

Under the Hatch Act amendments of 1994, federal employees may: be candidates for public office in non-partisan election, register to vote as they choose; express opinions about candidates and issues, contribute money to political organizations, attend political fund-raising functions, attend and be active at political rallies, join and serve as officers in a political party, sign nominating petitions, campaign for or against referendum questions, campaign for

or against candidates, make campaign speeches, and distribute campaign literature.

Federal employees may not: use their official authority or influence to interfere with an election, solicit, accept or receive political contributions unless both individuals are members of the same federal labor or employee organization, knowingly solicit or discourage the political activity of any person who has business before the agency, engage in political activity while on duty, in any government office, while wearing an official uniform, or while using a government vehicle, be candidates for public office in partisan elections, or wear political buttons on duty.

Space News Roundup

The Roundup is an official publication of the National Aeronautics and Space Administration, Lyndon B. Johnson Space Center, Houston, Texas, and is published every Friday by the Public Affairs Office for all space center employees.

The Roundup office is located in Bldg. 2, Rm. 181. The mail code is AP2. The main Roundup telephone number is x38648 and the fax number is x45165.

Editor Kelly Humphries
Managing Editor Karen Schmidt
Associate Editor Natasha Calder

Vehicle handbook available online

(Continued from Page 1)

speed limit on Avenue B from First Street to Link One will be 25 miles per hour; from Link One to Fourth Street the limit will be 35 with a reduction to 25 approaching Gate 3.

Hard copies of the vehicle handbook will be available at the Bldg. 1 reception window, the Bldg. 30 and Bldg. 110 badge offices and at the Security Branch Office in Bldg. 45, Rm. 211. The handbook also will be available online at http://stic.jsc.nasa.gov/cgi-bin/JSC_COD

Employees are expected review and comply with these new traffic safety policies to ensure continued personnel and local wildlife safety.