

Space News Roundup

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No. 30

Third time may be charm for *Discovery*

By James Hartsfield

After replacing a generator that supplies power to the hydraulic systems in the right-hand solid rocket for *Discovery*, technicians at the Kennedy Space Center planned to start the countdown for a third launch attempt set for 8:06 a.m. CDT Wednesday.

The full, three-day countdown was to begin Sunday evening. *Discovery's* second launch attempt was halted with 19 seconds left in the countdown July 24 when the spacecraft's computers saw the solid rocket generator, called an auxiliary power unit, not operating at the proper speed. The first launch attempt on July 17 had

been halted by a faulty switch in a pyrotechnic initiator controller.

"We'll be ready to come back when you tell us," Commander Frank Culbertson told the launch team after the second scrub.

Culbertson, Pilot Bill Readdy and Mission Specialists Jim Newman, Dan Bursch and Carl Walz were to leave for Florida on Sunday in preparation for Wednesday's launch.

Each solid rocket has two APUs that serve as backups to one another, supplying power to the hydraulics that are used to swivel the rockets' nozzles to aid in steering the shuttle during its ascent. Although one APU is enough to power the hydraulics, both are required to be operating at launch.

"In the nature of this business, there are going to be disappointments," Launch Director Bob Sieck said. "This is another case where the

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NASA Photo

STS-51 Pilot Bill Readdy exhibits some disappointment following one of two STS-51 launch scrubs as he and Mission Specialist Jim Newman. Although disappointed by the delays, crew members said they were pleased that shuttle safety systems were able to detect the erratic hardware so that it could be repaired before launch.

Space station host center job applications due

By Kelly Humphries

Eight NASA-wide job announcements that cover 300 new positions to be located at the new host center for the Space Station Program Office opened Thursday and will remain open until Aug. 12, according to JSC's Human Resources Office.

Any NASA civil service employee who has the necessary qualifications, including those currently working in Space Station Freedom Projects Office at JSC, may apply for the positions. The announcements are not open to job seekers from the private sector.

Because the location of the host center has not yet been determined, employees who accept job offers will be allowed to change their minds if a move becomes necessary.

"While many of the details concerning the structure, location and management of the new office are unknown, I want to personally encourage each of you to give serious consideration to applying for the positions that interest you," JSC Director Aaron Cohen wrote in a letter to all eligible employees. "I firmly believe that JSC has the very best talent in the agency, and the new program office needs that talent in order to succeed."

Natalie Saiz, JSC's representative on the team that has been working on the announcements at NASA Headquarters, stressed that the closing date is firm and that any application received after close of business Aug. 12 will not be considered. JSC employees may mail their applications directly to Headquarters Code FPP, or deliver them to the Employee Services Section in Bldg. 45, Rm. 140. No faxes will be accepted.

In a recent letter to all employees, NASA Administrator Daniel S. Goldin

said that reorganizing the space station program and merging program management at one host center will reduce the complement required for space station to 1,000 employees, down from 2,300. NASA will move some people to other programs and try to accomplish other reductions through early retirements and buyout packages.

The bill authorizing NASA to offer buyouts is being considered by Congress now, and if it is approved before the fall recess the option will be available through Oct. 1. Plans are to offer buyouts first to employees at Headquarters and the space station offices in Reston, Va., then to non-host centers that have Space Station Freedom project offices, then to host center employees, and then to other NASA centers. Under the proposed legislation, employees who opt for the buyout would receive one week's pay for each of their first 10 years of service, two week's pay for each year over 10 years of service and an additional 10 percent for each year they are over 40 years old. The maximum buyout amount would be \$25,000. Further restrictions on who will be eligible for the buyout may be imposed at each center based on critical skills needed at certain grade levels.

Details of the early out program won't be announced until after a host center is chosen.

The location of the host center is not expected to be announced until after Congress reconciles the House and Senate versions of the spending bills that include NASA appropriations.

Likewise, the specific duties, grade level and potential for advancement associated with each position will be defined later in the process, Employee

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Cox helps lead transition from *Freedom* to redesigned space station

Dr. John Cox was appointed acting deputy director for Space Station Freedom program and operations last week, and Robert Moorehead was made chief engineer for the Office of Space Systems Development.

The Tuesday announcement was issued by Arnold D. Aldrich, associate administrator for space systems development, and Space Station Transition Director Bryan O'Connor.

Cox was deputy manager for

operations in the Space Station Freedom Program. He was named to the station redesign team in March and played a key role in the development of the operations concept for the redesigned space station. Cox will work out of the Space Station Freedom Program Office in Reston, Va., and direct all program activities. He also will be responsible for all transition-related efforts by the Space Station Freedom team.

"John will play a key role in struc-

ture a closer and more effective working relationship between the Transition Team and the Space Station Freedom Program," O'Connor said. "John possesses a wealth of knowledge and experience about the current Space Station Freedom Program and about the redesigned space station. He will provide a critical link between the current program and the Transition Team to enable NASA to meet its commitment to provide a compre-

hensive configuration definition and detailed program transition plan to the White House on Sept. 7."

Moorehead, who had been in the position Cox now holds, will be responsible for engineering assessments and analyses of all OSSD programs including the administration's new technology initiative and technology programs related to existing launch systems, commercial launch vehicle capabilities and improvements, NASA's Access to

Space program for future space transportation and numerous other advanced technology projects.

"Bob's technical skills and vast program management experience make him uniquely qualified to be the chief engineer for OSSD" Aldrich said. "I expect him to make significant contributions to developing the strategies which will help ensure NASA's leadership in the launch vehicle technology and the transportation systems of the future."

Reck, Good to keynote SOAR

Greater private and public sector cooperation to enhance future aerospace operations highlights discussions at the seventh annual Space Operations, Applications and Research Symposium and Exhibition hosted by JSC this week.

The Space Technology Interdependency Group's SOAR '93, co-sponsored by JSC and the Air Force Materiel Command, convenes at 8:30 a.m. Tuesday and continues through noon Thursday at the Gilruth Center.

"The primary purpose of SOAR '93 is two-fold. First, to bring different government agencies — NASA, the Department of Defense and the Department of Energy — together to identify potential interdependent pro-

grams and reduce non-productive overlaps in the space operations area. But even more critical is networking with participants from industry, academia and other research institutions to involve them with technical exchange and technology needs identification," said SOAR '93 general chairman, Dr. Kumar Krishen, JSC chief technologist.

Gregory Reck, NASA acting associate administrator for Advanced Concepts and Technology, and Dr. R. Earl Good, director of geophysics for the Phillips Laboratory at Hanscom Air Force Base, Mass., will discuss technology development and transfer at the keynote dinner session at 6 p.m. Wednesday, Aug. 4.

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JSC Photo by Mark Sowa

FRANK DISCUSSION — Dr. Neil Frank shares conversation with employees from JSC's Life Sciences Directorate during a recent visit to Bldg. 37. Frank, a television meteorologist and formerly of the National Weather Service's Hurricane Center, was at JSC this past week to discuss hurricane preparedness.

NASA flyovers collect data on Midwest floods

NASA is providing needed assistance to the Federal Emergency Management Agency's efforts to gather information on the flood-damaged Midwest.

On July 17 and 18 at FEMA's request, personnel from Stennis Space Center flew specialized sensors mounted in an airplane over portions of the midwestern states.

The first two missions covered an area from Cairo, Ill., to Chester, Ill., with an emphasis on Cape Girardeau, Mo. Another flyover to acquire digital imagery and infrared photographs from Kansas City, Mo., to Omaha, Neb., was planned.

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JSC

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.

- Moody Gardens — Discount tickets to three of five attractions: \$14.
- Six Flags Over Texas — Discount tickets: one-day pass, \$19.95; two-day pass, \$24.95 and children under four feet, \$18.95.
- Splash Town USA — Discount tickets: \$10.50.
- Astroworld — Discount tickets: adult, \$18.95; children under 4 1/2 feet, \$15.95.
- Waterworld — Discount tickets: \$9.95.
- Sea World in San Antonio — Discount tickets: adult, \$19.75; child (3-11), \$13.15.
- Fiesta Texas, San Antonio — Discount tickets: adult, \$18.35; child (6-11) \$12.75.
- Sea World and Fiesta Texas — Discount coupons: \$6 off discount prices if tickets purchased for both parks.
- Space Center Houston — Discount tickets: adult, \$7.50; child (3-11) \$4.50; commemorative: \$9.95.
- Metro tickets — Passes, books and single tickets available.
- Movie discounts — General Cinema, \$4.50; AMC Theater, \$3.75; Loews Theater, \$4.

JSC

Gilruth Center News

Sign up policy — All classes and athletic activities are first come, first served. Sign up in person at the Gilruth Center and show a badge or EAA membership card. Classes tend to fill up two weeks in advance. For more information, call x30304.

EAA badges — Dependents and spouses may apply for photo identification badges from 6:30-9 p.m. Monday-Friday. Dependents must be between 16 and 23 years old.

Defensive driving — Course is offered from 8 a.m.-4:30 p.m. Aug. 21. Cost is \$19.

Weight Safety — Required course for employees wishing to use the weight room is offered from 8-9:30 p.m. Aug. 11. Pre-registration is required; cost is \$5.

Aerobics — High/low-impact class meets from 5:15-6:15 p.m. Tuesdays and Thursdays. Cost is \$32 for eight weeks.

Exercise — Low-impact class meets from 5:15-6:15 p.m. Mondays and Wednesdays. Cost is \$24 for eight weeks.

Aikido — Martial arts class meets from 5-7:30 p.m. Tuesdays. Cost is \$15 per month.

Golf — Group lessons are offered from 5:30-6:30 p.m. beginning Aug. 2 at the Clear Lake Golf Course. Cost is \$90 for six weeks.

Country and western dance — Beginners class meets from 7-8:30 p.m., intermediate class meets from 8:30-10 p.m. for six weeks beginning Aug. 9. Cost is \$20 per couple.

Ballroom dance — Beginners and beginners intermediate classes meet from 7-8:15 p.m.; intermediate and advanced classes meet from 8:15-9:30 p.m. beginning Aug. 12. Cost is \$60 for eight weeks.

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

Fiction workshop — Class will meet from 6:30-9 p.m. beginning Aug. 18. Cost is \$80 for five weeks.

Tennis lessons — Classes meet from 5:15-6:45 p.m. Beginners class starts Aug. 16; advanced class begins Aug. 18. Cost is \$32 for eight weeks.

JSC

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 AP3, or deliver them to the deposit box outside Rm. 147 in Bldg. 2. No phone or fax ads accepted.

Property

Sale: Dickinson waterfront, 4-2.5-2, pool, FPL, wetbar, 100 yr old trees, 3/4 acre, sec sys, \$220k. x34354 or 337-1640.

Sale: Meadow Bend, 3-2-2, 1480 sq ft, FPL, sun deck, new fence, gar doors, dishwasher, \$71.9k. Nasser, x33685 or 334-1032.

Rent: Lake Travis cabin, private boat dock, CA/H, fully equipped, accommodates 8, Summer/Fall, \$425/\$325 wkly, \$90/\$90 dly. 474-4922.

Rent: Southern Colorado, 2 BR house, furn, sleeps 5, close to skiing, fishing, national forest area, no pets, no smoking, day/wk/mo or longer. Bob, x30825 or 998-7372.

Sale: Shoreacres split level TH, 2-2-1, w/elec opener, stack W/D, \$59.9k. 480-2262.

Rent: Nassau Bay, 1.5 story house, recently remodeled, \$950/mo. Minh, x30992 or 484-2456.

Rent: Colorado, fully furn, sleeps 6, hiking, biking, fishing, golf, horseback, mountains, low summer rates through Oct. 488-4453.

Sale: Sterling Knoll, 3-2-2, pool, FPL, extras, \$69.9k. x32264 or 486-9760.

Sale: San Leon, wooded 3/4 acre lot, 2 lg BR, 1 extra lg bathroom w/separate shower/tub, CA/H, 2 car gar w/openers, attached 1 BR apt., \$87.5k. 339-1152.

Sale: Dickinson, 3-2-2, 1 yr old, auto gar dr, landscaping, \$72k. 484-0392.

Sale: Lake Livingston, 30 x 70 lot, camp or build, 1/2 mi. off water, util avail, paved roads, \$3k. Teena, x37787 or 422-6369.

Sale: Forest Bend, 3-2-2, new roof, paint, child's playhouse, lg backyard, upgrades, \$72k negotiable. Ted, x36894 or 992-4814.

Sale: Meadowbend, 4-2-2, lg living room w/FPL, cathedral ceiling, under market at \$67,775, total monthly at current rates \$668. 947-3166.

Sale: Univ Green, 3-2-2, new AC, ceiling fans, deck, custom miniblinds, drapes, all appl, 9.5% no approval assumable, \$84.9k, 20k equity, fianance part of equity. 333-7668.

Sale: Crystal Beach lot on Bolivar, 50' x 100', \$2k. 921-7212.

Cars & Trucks

'85 Honda Prelude, 1 owner, blue, 5 spd, 88k mi, \$3.8k. Gary, 333-6247 or 480-6864.

'78 Porsche 928, brown w/leather int, auto, ex cond, 75k mi, \$8.5k. Bill, x48889.

'88 Subaru XT6, auto, AC, PS/PB/PL/PW, cruise, stereo/cass, good cond, 1 owner, \$6k OBO. Wayne, x56219.

'85 Honda Prelude, ex cond, 8k mi on new eng, auto, AC, AM/FM/cass, PS/PB, sunroof, \$4.8k OBO. Barry, x38410.

'71 Chevy Nova, V8, original owner, \$4.5k. 480-1998.

'87 Hyundai Excel, 4 dr, AC, tint, AM/FM, garaged, well maintained, ex cond, 59k mi, \$2.9k. x33662 or 334-6794.

'67 Mustang, good body, working 351, interior needs work, \$2.3k OBO. x35896 or 488-7982.

'77 Mercury Monarch, good cond, \$500. x36856 or 326-3108.

'78 Corvette, 25 yr Silver Anniv Edition, leather oyster int, L82 eng/w auto, air AM/FM/cass, PS/PB/PW, t-tops, 58k mi, \$10.5k. Herb, x34325 or 482-3546.

'85 Pontiac Parisienne, V8, loaded, AM/FM/cass, \$2.5k. Kim, x30223 or 481-6486.

'87 Toyota Camry, PS/PB, AC, cruise, AM/FM/tape, immaculate, \$5.8k OBO. x30974 or 554-7083.

'81 VW Rabbit diesel, 58 mpg, new tires, shocks, rebuilt engine, \$2295. Ed, 280-9621.

'80 1/2 ton Chevy, 350/TH350, PW/PL, tilt, gauges, cruise needs work, brwn/tan, chrome wagon wheels, rebuilt AC, trans, rear end, brakes, new front suspension, all stock, \$2995. 332-2859.

'88 VW Cabriolet convertible, 80k mi, red, new paint, new tires, \$8.5k OBO. 568-4099.

'88 Mitsubishi Galant Sigma, all auto, pwr sun, leather seats, new tires/brakes, ex cond, \$4.9k. 992-4814.

Boats & Planes

Sunfish sailboat w/trlr, \$1.2k. x38586 or 728-1877.

'92 Gastra Race Foil Pro 7.5m windsurfing sail, 3 cams, monofilm, was \$695, now \$275. Steve, 474-5226.

Customized 17' Coleman canoe, 42" wide, wood floor, outriggers, trlr, \$600. LaVon, x31138 or 486-1187.

Cycles

Vespa Bravo model moped, 225 mi, \$600. Earl Rubenstein, x34807.

Audiovisual & Computers

Yamaha RX9000 receiver, 85 w/ch, 7 audio, 3 video, inputs, remote, variable

Today

Cafeteria menu — Special: Italian cutlet. Entrees: chicken a la king, enchiladas with chili, baked lasagna with meat, steamed fish, French dip sandwich. Soup: split pea and ham. Vegetables: Brussels sprouts, oriental vegetables, buttered carrots, lima beans.

Tuesday

SOAR '93 — The Space Technology Interdependency Group presents its seventh annual Space Operations, Applications and Research Symposium, to be held on Aug. 3-5 at the Gilruth Center. For more information, civil servants should call Jane Kremer at x32601; contractors should contact PACE at 282-3030.

Cafeteria menu — Special: stuffed cabbage rolls. Entrees: turkey and dressing, country style steak and hash browns, beef ravioli, baked chicken, French dip sandwich. Soup: tomato Florentine. Vegetables: Italian blend, okra and tomatoes, corn coblette, navy beans.

Wednesday

Toastmasters meet — The Spaceland Toastmasters Club meets at 7 a.m. Aug. 4 at the House of Prayer Lutheran Church. For more information, call David Bacon at x33845.

Cafeteria menu — Special: pepper steak. Entrees: liver and onions, catfish and hush puppies, stir-fried pork with rice, steamed fish, Reuben sandwich. Vegetables: steamed broccoli, yellow squash, macaroni and cheese, vegetable sticks.

Thursday

Cafeteria menu — Special: chicken fried steak. Entrees: beef tacos, scrod with Hollandaise sauce, steamed fish, French dip sandwich. Soup: navy bean. Vegetables: spinach, cut corn, breaded okra, pinto beans.

Friday

Cafeteria menu — Special: tuna noodle casserole. Entrees: steamed salmon steak, roast beef, baked chicken, steamed fish, Reuben sandwich. Soup: seafood gumbo. Vegetables: French cut green beans, cauliflower with cheese, green peas, black-eyed peas.

Monday

NSS meets — The Clear Lake Area Chapter of the National Space Society will meet at 7 p.m. Aug. 9 at Freeman Memorial Library. For more information, call Marianne Dyson at 486-4747.

Cafeteria menu — Special: breaded cutlet. Entrees: baked chicken, beef chop suey, smoked sausage and German potato salad, French dip sandwich. Soup: cream of broccoli. Vegetables: okra and tomatoes, peas, navy beans, baby carrots.

Sept. 8

Freedom Fighters meet — The Space Station Freedom Fighters will meet at noon and 5 p.m. Sept. 8 and 22 in the PIC room at the Lockheed Plaza 3 bldg. on 1150 Gemini at Diana. For more information, call David Cochran at 482-7005.

Sept. 28

Call for presentations — The final Combined Manufacturers' and

Technologists' Airborne Wind Shear Review Meeting will take place on Sept. 28-30 at the Radisson Hotel Hampton in Hampton, Virginia. Presenters wishing to be considered for inclusion on the agenda must submit an abstract to Dr. Victor E. Delnore by July 30. For details, contact Delnore at 804-864-1812.

Oct. 20

Call for papers — The Dual-Use Space Technology Transfer Conference and Exhibition, to be hosted by JSC in February 1994, has issued a call for abstracts, due Oct. 20. The conference, sponsored by JSC, the Texas Space Commission and nine other technical organizations, is designed to share research and technology between the space community and industry. Abstracts should be faxed to: Software and Computer Technology, 282-8076; Human Support Technology, 244-4732; Avionics, Guidance and Control, 483-6120; Propulsion and Power; 483-3204; Communications and Data Processing, 483-6297; Robotics and Automation, 483-3204; Materials Technology, 483-2162; Medical and Life Sciences, 483-6089; and Technology for Technology Transfer, 480-6328. Papers on other topics should be faxed to 244-8589.

Oct. 31

Bike tour — The Lions Eye Bank of Texas and the JSC Bike Club are sponsoring the 15th Annual Texas Coastal Cruise. The ride will begin at 8 a.m. Oct. 31 at Clear Lake Park on NASA Road 1. For more information, call 798-5510.

loudness, digital tuner, was \$700, now \$225. Patrick, 282-3544 or 338-7943.

IBM PC 256kb, 2 FD, Epson FX 80 printer, IBM mono printer adapter/display, kybd, manual, was \$3,024, now \$1,512. Valerie, x49691.

CD ROMS, Loom \$35; Monkey Island, \$35; Sherlock Holmes Vol 1, \$35; World, Carmen Sandeigo, \$40; all w/registration cards/docu; ATI VGA Wonder video card, 512k mem, incl bus mouse, \$45; 80287 math co-processor, 10 MHz, \$10. Bob, 480-6797.

AzureSoft Elite Personal Flight Simulator for IBM comp or Mac, simulates a Cessna or a Mooney, incl Universal controls interface w/built-in microprocessor, navigation software for Houston, Dallas, San Francisco, \$550. 482-9084.

2 way spkr w/12" woofer, 60 w, 2 for \$60; motion car alarm, 2 for \$40; IBM PC Jr, needs pwr supply, \$40. Bob, x30223 or 481-6486.

Texas Instruments graphing calculator, model TI-81 w/manual, \$50 OBO. 332-0417.

Commodore 64 incl color monitor, printer, modem, desk, chair, software, \$400. 326-5616.

Pets & Livestock

Female ferret, spaid, descented, shots, \$125. 470-1025.

AKC chihuahua pups, 3 months old, shots, \$200. 534-4667.

Musical Instruments

Bundy II flute, school approved, ex cond, \$150. x35399.

Martin J-40MC jumbo acoustic cutaway guitar w/332 thinline pickup/hardcase, was \$2.8k, now \$1395. Ed, 280-9621.

Household

Navy blue leather swivel rocker recliner, chair, 3 yrs old, \$325. 482-7038.

Freezer, chest, \$100 OBO. 480-3260.

Kg sz waterbed, lg mirrored hdbd, 12 drwr, captains pedestal w/3 storage areas w/doors, \$100. 482-9084.

4 pc canister set, \$10; brass tbl lamp, \$30; brass coat tree, \$15. Shawn Teague, 472-7526.

Daybed and trundle, wht/brass color, \$150 OBO. x35896 or 488-7982.

Qn Anne solid cherrywood dining set, 3 leaves, 6 chairs, ex cond, was \$3k, now \$1k w/tbl top covers free. x35751 or 488-6345.

Kenmore washer/dryer. Fred, 944-3523.

sm dressers, \$20; wooden top dinette tbl, 4 chairs, \$30; tv stand, \$15; student desk, \$40; end tbl w/enclosed cabinet/sm shelf, \$35; all prices negotiable. 332-6523.

Solid oak table, 4 chairs, \$250. 996-0788.

Toastmaster deluxe oven broiler,, 11.5 x 21 x 10, \$30. 486-4043.

Litton microwave oven w/digital controls, 650w, 0.8 cu ft, \$60. 992-5958 or 335-8539.

Kg sz soft side waterbed, matt, box springs, frame, adjustable firmness w/cyl, will trade for good living rm set or \$350. 534-4667.

Glass top dining tbl, 4 chairs, \$200. Kim, x45368 or 332-4103.

Kg sz waterbed, semi motionless, solid oak hdbd/ftbd, heater/liner, make offer. Lance, 280-4524 or 326-1526.

French Provincial sofa, Fruitwood, beige; love seat, brwn velour, 4 lots at Rosewood Cemetary. 941-3262.

Lt blue floral couch, opens into qn sz bed, ex cond, \$225. 474-2185.

Mitsubishi lg screen 45" tv, stereo, all features/options, ws \$3.3k, now \$1.6k or trade for working car. 488-0345.

Wanted

Want used calculators, radios, radi/cass, encyclopedias. 867-8820.

Want travel trlr or MH, inexpensive, will trade womans diamond wedding set and/or 386 PC and/or cash. 488-5445.

Want aerobic step platform, either the original step or Jan Fond's step. 486-4043.

Want v-hull aluminum boat. Tex, 488-5445 or 333-6533.

Miscellaneous

Power glide ski machine, \$125. 480-8483.

DP airmometer exercise bike, \$110; couch/chair, \$45. 333-5839.

Drafting tbl/chair, Early American couch, loveseat, end tbl/coffee tbl, 4 pc BR set w/qn matt/box springs, exercise bike. x30439 or 286-7388.

Elec lawnmower, 19", new blade, \$95. 474-7883.

Smith Corona typewriter, spell check, file mem, LCD screen, ex cond, \$150; Eureka canister vacuum, ex cond, \$45; bar w/hanging glass holder, \$50. 334-1119.

Antique vanity dresser, \$100; Sears exercycle, \$50. 488-6521.

Lg Kenmore gas grill w/separate burners, access incl propane tank, redwood holding tray, utensils, \$100. 482-6879.

ZWSCO circuit breakers. Fred, 944-3523.

Silk flowers, arrangements for a wedding. Sheila, 332-6170.

SW airline rdtrip tickets, anywhere, \$295, expires 7/94. x31538.

Dunlop Diamond Max golf clubs, irons, 3-PW, Wilson 1200 metal driver, 3 wood, Arnold Palmer bag, pull cart, all \$100. Bob, x33149.

29 gal aquarium, lid, lamp, wooden stand, filter, air pump, heater, thermometer, gravel, chemical, \$70. Henry, x33188.

Camper top for Toyota, \$100; work tbl, 10x2, \$25; 2-15 day composters, \$25/ea; chipper/shredder, \$175. LaVon, x31138 or 486-1187.

Monkey grass, 1 gal planters, \$2.50 or 10 for \$20. x30974 or 554-7083.

Exec desk, computer storage unit/chair, new refinished walnut desk; matching computer, upright storage unit, \$995. Dale, x48179 or 481-0046.

Air conditioner, 8,000 btu, Emerson, ex cond, \$285. x36309 or 474-9747.

Maxima 300 stairmaster w/timer, \$200; solid oak dining set, 2 benches w/corner, solid tbl, \$400. 333-0252.

Bicycle roof rack, adjustable, locking, access for Suzuki Samurai, chrome bumpers, spare tire cover, make offer. 480-5404.

His/hers HJC motorcycle helmets, blk w/visors, face shields, NADY PMC3 intercom, FM radio, \$100; Hamilton wood drafting tbl, 31 x 42 top, \$50; MUCCI 19 oz pool cue w/hard case, \$50. 486-8813.

6 man tent, \$150; professional drafting tbl, \$125; old "Stella" guitar, \$25; televideo terminal monitor, \$60, new suit, brwn, sz 40 reg, \$60. 225-4064.

Victorian wedding gown, sz 3-5, off-the-shoulder, sequins/beads, full, long tain w/bustle, veil, \$600. 333-7760 or 943-7139.

His/her wedding set, hers, 1.37 carat solitaire, diam w/diamon ring guard, soldered, his, plain gold band, medium sz, \$1.2k. Diana, 282-4101 or 484-4304.

Wedding gown by Jasmine, sz 5-6, silk taffeta w/scalloped Sabrina neckline, long tapered applique sleeves, semi-cathedral train w/butterfly bow in back, was \$750, now \$450. Linda, 332-5394.

Wedding gown w/pearls, sequins, v-neck, chapel length train, sz 6-8, veil, petticoat, \$400. x36696 or 332-9102.

Speedy paint sprayer w/ 1/3 hp motor, compl w/hose and sprayer, \$30; Craftsman 26.22 gas weedwacker, \$50; elec motors, various sizes; coolant pump w/motor, \$30. 921-7212.

Desk and hutch w/2 shelves, off white/green trim, \$55. Bob, 326-5616.



Total Health



JSC inaugurates new approach to employee health, wellness

By Kari Fluegel

Everywhere today people are talking about fat and cholesterol, the benefits of vitamin supplements and exercise heart rates. Maintaining good health has become more than a fad or a hobby. It's an attitude, a lifestyle.

It's Wellness.

JSC is joining the wellness movement with the implementation of a new Preventive Health Program for employees. The program, sponsored by the Space and Life Sciences Directorate, is designed to encourage a "Total Health" approach to the Center's health and wellness activities.

"With regards to our health care goals for the center, an ounce of prevention is worth a pound of cure," said Roger Billica, chief of the Medical Operations Branch.

Total Health puts to work a number of existing activities at JSC into a program that emphasizes an overall lifestyle approach to good health. This includes exercise, nutrition, mental well-being and preventative medical care.

Billica said this approach has been used successfully in other industries. According to the National Resource Center on Worksite Health Promotion, Tenneco lowered the health care costs for wellness program participants by an average of 49 percent. DuPont saw a 14 percent reduction in disability and Traveler's Insurance company participants reported sick 1.2 days less than those not participating.

NASA employees traditionally use less sick leave per person annually than the government-wide average. In 1991, NASA employees used an average of 6.96 sick days per employee, compared to an average of 8.24 days government wide. JSC, at an average of five days per employee in 1991 and 4.89 days in 1992, has an even lower average.

Billica also said occupations health studies show that for every \$1 invested in employee health preventive programs, \$2 to \$3 are saved in sick pay, hospital costs, substitute workers and training, morale and productivity.

"We need to put most of our bang and bucks behind lifestyle preventive measures," Billica said.

The move toward the new Total Health program is being driven by three factors — a declining budget, increasing demands and changing medical standards.

"We took the opportunity to take a comprehensive look at how we deal with health care," Billica said. "Although

what we have been providing is quite good, it is somewhat behind the times."

Recent reports from organizations such as the American College of Physicians, the American Medical Association, the National Academy of Sciences, the American Cancer Society and the American Heart Association suggest that an annual physical is not necessary for a healthy adult. A complete examination every three years is satisfactory for an adult under 45 and every two years for an adult over 45.

The reports do recommend more frequent examinations for individuals in high-risk groups or for those who have had previous medical problems.

The Total Health program will restructure JSC's physical examination schedule to reflect with the medical community's updated standards, subsequently reducing costs while adding new procedures, Billica said.

"This program replaced traditional annual physicals with an updated program that targets services to individuals' needs and risks," he said.

Under the new program, employees will still be encouraged to volunteer for annual blood pressure, weight and cholesterol checks at the JSC clinic. Healthy individuals under age 45 will have a full physical every three years while those over 45 will have one every two years. If the individual is "at risk" for health problems, clinic doctors will work with the patient's private doctor on an appropriate checkup schedule.

Mammograms will continue to be offered as recommended by the American Cancer Society. Male NASA employees will be tested for Prostate Specific Antigen during their health screening physicals beginning at age 50. Flexible sigmoidoscopies (procto) and the EKG treadmill tests will be offered every four years to civil servants beginning at age 45.

Besides the screening services, employees will continue to have access to the clinic for injuries or illnesses that occur on the job as well as emergencies.

"This comprehensive program will allow doctors to add new tests and new promotional activities that they couldn't do before," Billica said.

A variety of activities comprise JSC's total health program such as having blood pressure checks available at the clinic daily from 9 a.m. to 4 p.m. as part of the Hypertension Control Program.

A Nutrition Intervention Program will teach employees more about the role of diet and nutrition in health. Open to all NASA civil servants, contractor employees and their

spouses, the 12-week program includes private consultations with a dietitian, a lecture series and a blood chemistry analysis to chart progress.

Counseling services will be offered by the Employee Assistance Program. This confidential program is staffed by licensed therapists who provide marriage and family therapy, legal or financial referrals, and counseling to NASA employees, contractor and their families.

Employees also will be able to receive health travel kits and information for many international travel destinations, and a self-paced Stop Smoking Program will be available for loan from the clinic. The Stop Smoking module includes a workbook and audiotape presentation.

Other Total Health offerings include the Health Related Fitness Program, jogging and walking trails, annual PAP smears for women, environmental health services, an allergy program, glaucoma screening, audiograms, organ donation information and other health education and information. A Wellness Library also will be made available to all employees.

Total Health will be kicked off Aug. 9 with several awareness activities set for that week.

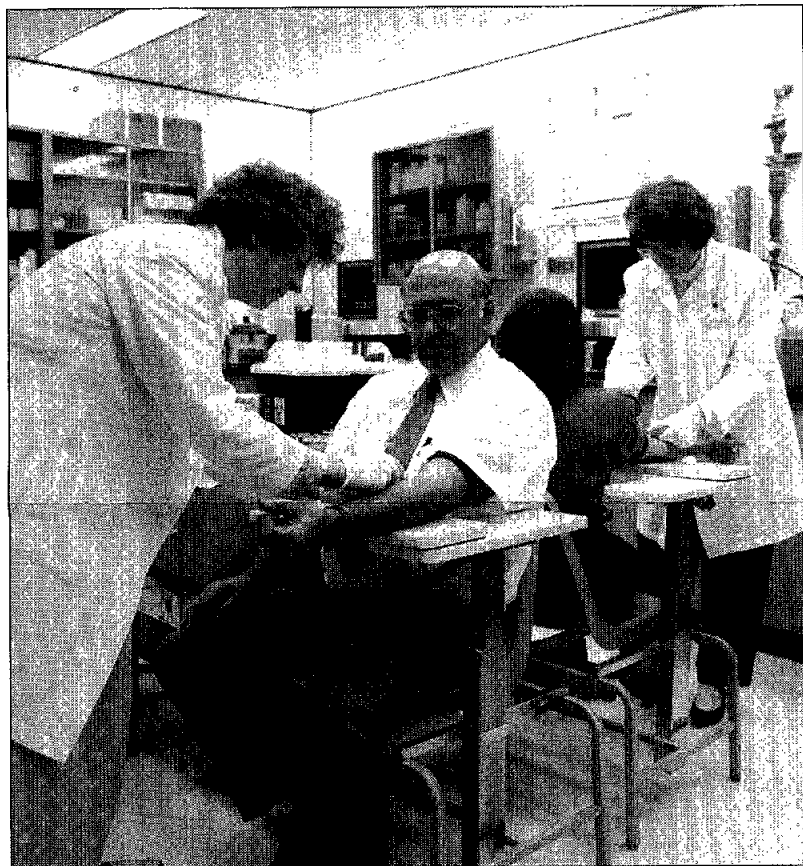
The Gilruth Center will host an open house Aug. 9 that will include presentations from a Nautilus representative at 11 a.m. to noon and 4 to 5 p.m. The representative will answer questions about using Gilruth's weight training equipment, developing a weight training program, and safety while working with the weights.

On Aug. 10, Total Health will host a Pond Party around the duck ponds from 11 a.m. to 2 p.m. at which information about the various wellness activities will be available.

The JSC cafeterias will join the wellness movement with the introduction of a special Total Health entree on Aug. 11. Both cafeteria's will offer an entree that is low in fat calories as an alternative selection on the menu each day.

On Aug. 12, the Employee Assistance Program will host a Lunch 'n Learn session in the Bldg. 3 cafeteria at which time Dr. Roy Marsh will discuss "Whole Person Wellness." This presentation inaugurates a series of presentations that will be held regularly in the small dining room.

"This will be one of the best employee health programs you can find," Billica said, "because it is tailored to individual health needs and risks. I don't think there's much that's going to be lacking." □



Total Health encompasses a variety of activities designed to assist individuals develop a healthy lifestyle. Top: The Health Related Fitness Program will assist employees in developing an individually-tailored exercise program with activities such as using Gilruth's stationary bicycles. Center: During years when they are not scheduled for physicals, employees will still be encouraged to volunteer for annual blood pressure, weight and cholesterol checks at the JSC Clinic. Below: The JSC Clinic also will continue to be the focal point for injuries or illnesses that occur on the job as well as emergencies.



Digital imagery helps emergency officials assess flooding

(Continued from Page 1)

With digital imagery, information from a particular area can be collected, computer analyzed and compiled more quickly than with conventional photography. The resulting information is more versatile than other forms of data. Changes in conditions can be updated and edited immediately.

FEMA will use these images to assist in charting flood-damaged areas, to boost the emergency management agency's computer database on the region and to

update flood insurance maps. In addition, the data will be used in assessing the status of residential and industrial areas and related infrastructure such as roads, bridges and rail services.

Another major concern to FEMA is getting initial disaster assistance to the people who need it most.

"The NASA data will be especially useful to the Federal Emergency Management Agency in their efforts to quickly settle flood insurance claims, making sure those who need the help receive assis-

tance in a very timely manner," said SSC Director Roy Estess. "This is an effective use of available resources that can save taxpayer dollars."

While flying the aerial reconnaissance mission, photographic-like digital imagery and high-resolution infrared photographs were taken of the flooded region. The missions were flown at 41,000 feet and at 6,600 feet, producing both multi-spectral digital imagery and color photography at different degrees of resolution down to 15 feet.

"We hope that NASA and SSC are providing a valuable service to the Federal Emergency Management Agency. While other agencies are furnishing data to FEMA, NASA is the only agency offering digital imagery," Estess said.

SSC can respond quickly with important information in emergency situations. The NASA facility has played an integral part in developing digital imaging technology for use in disaster assessment.

In August 1992, SSC provided the state of Florida with both digital

imagery and infrared photography of South Florida areas hit hardest by hurricane Andrew. The imagery helped officials assess the damage, prioritize relief efforts and develop long-term land use plans.

SSC continues to work with FEMA as that agency follows the cresting of the Mississippi River and the areas affected by the flooding.

"We remain in close contact with FEMA and will provide assistance in an effort to help resolve this national emergency," said Estess.

JSC workers invited to help flood victims

A Houston woman is inviting JSC employees to help supply victims of the continuing Midwest floods with much-needed drinking water.

Karen Jerro has organized a "Drinking Water Drive" for flood victims of both Des Moines, Iowa, and St. Louis, who are expected to be without drinking water for four to six weeks. Jerro is working with Randall's grocery stores to procure and ship the drinking water.

JSC employees may participate by taking one of two cards available in the store's water aisle to the checkout counter. One card allows a customer to donate one gallon of water, and the other a whole case.

The grocery checker will scan the card and automatically add to the customer's bill 63 cents for each bottle donation and \$3.78 for each case.

Jerro said she has a friend who works for Eagle Engineering, one of JSC's support contractors, who told her that JSC employees were particularly generous in helping people in need of emergency assistance.

For more information, call Jerro at 596-6453.

Brandt to lead local AIAA section

The Houston section of the American Institute of Aeronautics and Astronautics recently elected a new board of directors.

Shirley Brandt, senior systems engineer with Grumman, will serve as chairman for the 1993-1994 section year.

Other officers elected to one-year terms are Dr. George Nield, JSC, chairman-elect; Tek Shrini, Paramax, vice chairman-operations; Dudley Nelson, Lockheed, vice chairman-technical; Michael Begley, Lockheed, secretary; and Jim Stramler, Barrios, treasurer.

Councillors elected to two-year terms are Richard Bennett, McDonnell Douglas; Paul Judas, McDonnell Douglas; Lou Livingston, Audrey Schwartz, JSC; and Steve Zobel, the outgoing AIAA chairman, McDonnell Douglas.

Larry Guderian, McDonnell Douglas; Michael Laible, Grumman; Malik Putsch, IBM; Emyr Robinson, Barrios; Dr. Zafar Taqvi, Lockheed, and Marv White, Lockheed, continue to hold councillor positions on the board of directors.

Columbia work on track

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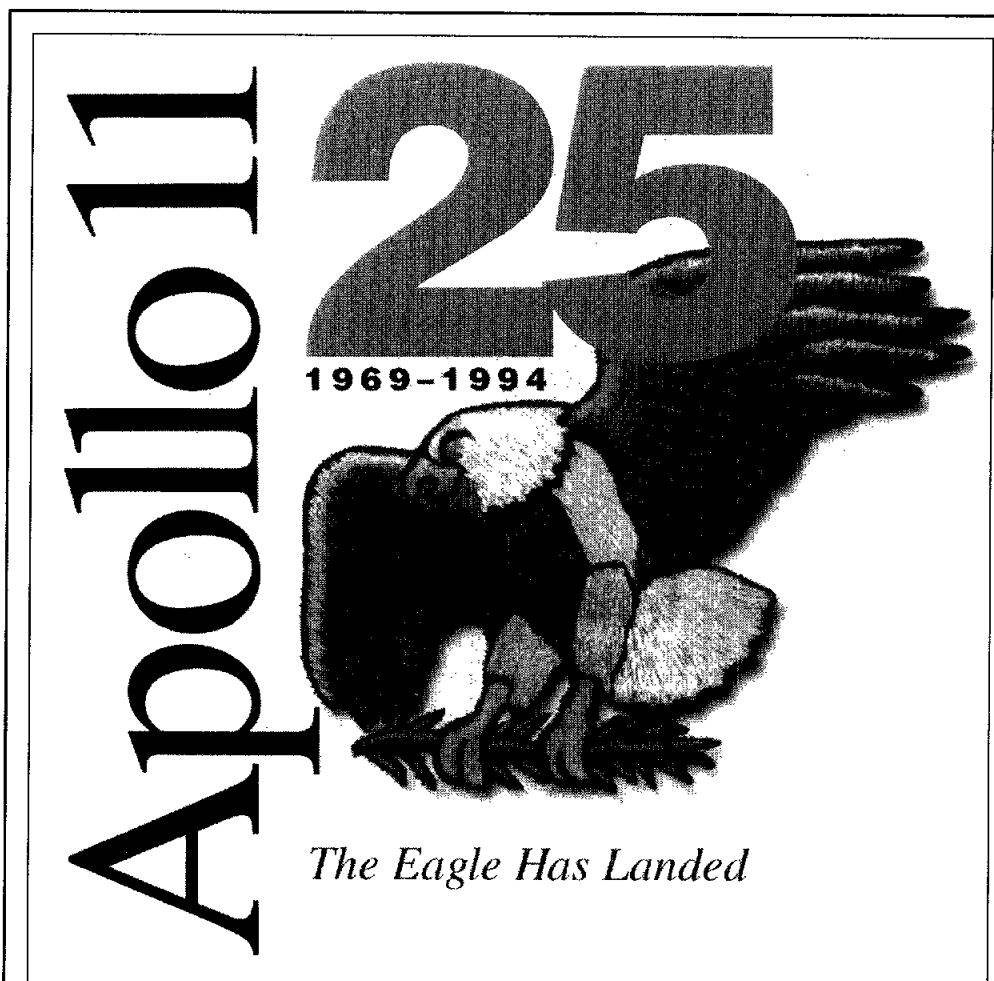
hardware misbehaved. But the system worked, it safed (the shuttle) automatically as it should and precluded the launch."

On Wednesday, KSC workers removed the malfunctioning power unit and installed a new one. The new APU was scheduled to be fueled and tested by the end of the week. Also Wednesday, *Discovery's* engine compartment was closed for flight, the Advanced Communications Technology Satellite's batteries were recharged, and the shuttle's electricity-generating system was topped off with fuel.

Elsewhere, *Columbia*, now in the Bay 2 processing hangar, remains on track to move to the Vehicle Assembly Bldg. in mid-August and to

the launch pad a week later in preparation for a September launch on STS-58, the second Spacelab Life Sciences flight. On *Columbia* this week, technicians finished installation of the main engines, performed a thorough test of all Spacelab connections, installed the tunnel connecting Spacelab to the orbiter's cabin and installed the heat shields for the main engines.

Work on *Endeavour* also is proceeding smoothly to ready it for an early December launch on STS-61, the first servicing mission for the Hubble Space Telescope. Currently in the Bay 1 hangar, work this week on the newest shuttle included checkouts of the orbital maneuvering system pods, dehumidifiers and main engine plumbing.



HOW TIME FLIES — The official commemorative logo marking the 25th anniversary of the first lunar landing, July 20, 1969, is now available. The design incorporates an eagle, from the original Apollo 11 crew insignia, descending toward the lunar surface with an olive branch, symbolizing America's peaceful space mission. The logo may be obtained by contacting Pounds Photographic Labs Inc., P.O. Box 35003, Dallas, Texas, 75235, at 214-350-5671. Ask for photo number 93-HC-312 if you want a color logo, or number 93-H-336 if you want a black and white copy. Cost of an 8 x 10-inch color print is \$5.

Host center job announcements open until Aug. 12

(Continued from Page 1)

Services Section Chief Mary Allen said.

The reorganization is designed to eliminate all current space station project jobs. The new jobs, which fall into four basic categories, and their corresponding grade levels are:

- Aerospace technologist engineers, GS/GM12-15 if non-supervisory or GM14-15 if supervisory;
- Contract specialists, GS/GM11-14 if non-supervisory, GM14-15 if supervisory;
- Payloads engineers and scientists, GS/GM12-15 if non-supervisory or GM14-15 if supervisory; and
- Other administrative specialists (such as resource analysts, configuration managers and computer specialists), GS/GM11-14 if non-supervisory,

GM13-15 if supervisory.

The job announcements will be distributed to all JSC civil service engineers, scientists and administrative professionals for the specified grade levels, and placed on the PROFS computer bulletin board.

JSC's Human Resources Office will help employees apply for the jobs by reserving a room where people may review their personnel files, copying items from the files on request, providing resumes of position titles, reassignments and promotions, and providing computer work stations where they can fill out their Standard Form 171 applications, Allen said.

The work stations, which will be available by appointment, will be in Bldg. 111 and the ISD Product Center in Bldg. 12. The Bldg. 12 computers

will be available from noon-4:30 p.m. daily, and employees may call x37572 to see if a station is available. Bldg. 111 will be kept open from 8 a.m.-7 p.m. so that applicants may use the computers after work, and employees should call Employee Services at x33086 to schedule a time. Macintosh diskettes with copies of the electronic form will be available for loan from Employee Services.

Allen said all of the announcements are being issued by NASA Headquarters, but that personnel officials there have not yet said how many people will be hired in each category and grade level.

Interview teams from NASA Headquarters are expected to visit each of the field centers with large numbers of applicants soon after the

announcements close. Job offers could go out as early as the end of August if a host center is named.

"When you are actually offered a position, then you will find out more particulars about specific duties, grade level and potential," Allen said.

The Human Resources Office will attempt to place any JSC space station project management employees who are not hired for the new host center organization in other positions, Allen said. For the most part, those people work in the Space Station Projects Office. Other support organizations that are affected include the Space Station Procurement Division and the Space Station Project Control Office. Those employees most likely would be moved within their parent organizations.

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.

Dates and Data submissions are due Wednesdays, eight working days before the desired date of publication.

Swap Shop ads are due Fridays, two weeks before the desired date of publication.

Editor Kelly Humphries
Associate Editor Kari Fluegel

SOAR '93 will feature panel talk about operations experiences

(Continued from Page 1)

JSC Director Aaron Cohen gives the welcoming address on Tuesday morning. Following Cohen's remarks, a plenary session on "Operations Experiences" includes NASA Flight Director John Muratore; Astronaut Kevin Chilton discussing the STS-49 Intelsat rescue mission; Dr. Howard J. Schneider, mission scientist in the Space and Life Sciences Directorate; and Air Force officers reviewing lessons learned from the Desert Storm conflict. An afternoon "Operation Challenges" session focuses on NASA and Air Force space-related operations technology and research needs.

Throughout the conference, paper presentations and panel discussions

will examine robotics and telepresence, automation and robotics, space maintenance and servicing, human factors and life sciences topics.

Many aerospace companies will host exhibits featuring new operations technology throughout the symposium. Exhibit hall hours are 8 a.m. to 7 p.m. Tuesday and Wednesday and 8 a.m. to noon Thursday. The exhibits are open to the public at no cost.

Registration will be available at the door each day of the conference with a fee of \$160 for the full three-day symposium or \$75 per daily session. For more information, JSC employees should contact Jane Kremer at x32601, and others contact Resa Ott at the University of Houston-Clear Lake at 283-3030.