Lyndon B. Johnson Space Center

Houston, Texas



Safety first ISC's Test Operations and Institutional Safety crews spend their days looking for trouble. Story on Page 3.



East meets west

Soviet Cosmonaut Valentine Lebedev greets his American counterparts while touring JSC. Photo on Page 4.

pace News Roundup

NASA top officials to resign

Washington, D.C., and three top managers at Marshall Space Flight Center this week announced plans to resign in the face of new laws restricting employment after federal service, but there were no corresponding announcements at

Dr. Noel W. Hinners, third ranking official of NASA and the principal senior assistant to the administrator and deputy administrator, announced Monday he will resign from the agency

James B. Odom, associate administrator for the Space Station Freedom program, announced Monday he will retire from NASA on April 30.

At Marshall, John W. Thomas, assistant to the center director and solid rocket booster redesign leader; Bill Sneed, Marshall's assistant director for policy review, and James Downey, manager of Marshall's payload project office, announced they will resign May 3.

Harvey Hartman, JSC's deputy director of Human Resources, said this center is seeing no unusual personnel activity in the form of resignations or retirements related to the legislation.

"In fact, our turnover at all levels is running well below what we had projected for the year," Hartman said. Please see HINNERS, Page 4



MERCURY MEMORIES-Sen. John Glenn tries on a Mercury Program spacesuit glove in JSC's Bldg. 7. Glenn, D-Ohio, returned to JSC and some old stamping grounds Monday for space program briefings and tours of JSC facilities. Jim McBarron, who supported Glenn's Friendship 7 flight and now is Engineering's Shuttle Support Branch chief, provided the glove. To Glenn's right are Lynn Heninger of Headquarters External Relations, Dr. Leonard Weiss, staff director of the Senate Committee on Government Affairs, and JSC Director Aaron Cohen.

Atlantis crew ready to send probe to Venus

Plans for the STS-30 crew

return to Houston, sche-

duled for seven to eight

hours after landing, are still

pending. As landing day

(May 2 based on an April

28 launch) approaches,

please call the JSC

Employee Information Ser-

vice at 483-6765 for the

latest information.

toward today's planned 1:24 p.m. CDT launch of Atlantis was "squeaky clean," keeping the schedule for tonight's deployment of the Magellan Venus probe on track

The countdown for STS-30 and the first space shuttle deployment of an interplanetary probe began on time at 7 a.m. Tuesday with the Kennedy

Space Center clock ticking at T-43 hours. The count includes 35 hours and 24 minutes of built-in hold time, and a 23-minute window for this afternoon's launch.

The five-member crew, including Commander Dave Walker, Pilot Ron Grabe, and Mission Specialists Norm Thagard, Mary Cleave and Mark Lee, flew from Ellington Field in T-38 trainers to

the launch site Tuesday and began final preparations for the launch.

"We're ready to go launch Magellan and fly Atlantis," Walker said upon arrival at Kennedy's Shuttle Landing

When asked how the crew would react to a launch scrub, he replied, 'We'd prefer not to scrub, but we know that we're going to have to do the safe thing and with a short launch window there's always that potential. The vehicle's ready and it looks like my native state has gotten the weather ready for us, so I don't think we'll be doing much scrubbing."

During the launch countdown, technicians performed final closeouts of the orbiter's aft compartment and loaded computer software and cryogenic propellants.

'During the past 24 hours, the countdown has run squeaky clean,

The early portion of the countdown said NASA Test Director Al Sofge. "We've accomplished our work per the timeline or ahead of schedule. This morning we have no significant problems to report."

Payload close outs, including those for Magellan, were completed and the payload bay doors closed Tuesday night. Final payload software was loaded and the solar panel covers

were removed from Magellan. The internal clock on the spacecraft was started at 6:24 a.m. CDT Tuesday.

Following liftoff, Atlantis is to be placed in a 160nautical-mile, 28.85-degree inclination orbit. The Magellan spacecraft and its inertial upper stage (IUS) booster are scheduled to be deployed from the payload bay at 7:42 p.m. CDT.

An hour later, Magellan's IUS is scheduled to fire and start the radar mapping probe on its 15-month journey to Venus, where it will spend 243 days mapping the planet's surface.

"After an 11-year gap in the planetary program, we're most anxious to get started," said John Gerpheide of NASA's Jet Propulsion Laboratory, Magellan project manager.

Landing at Edwards Air Force Base, Calif., is expected at 2:20 p.m. CDT Tuesday

Weather at launch time is expected to be acceptable. The forecast called for sscattered clouds between 4,000 and 9,000 feet, east-southeasterly winds 10-15 knots, temperature of 87 degrees and visibility of seven miles or better. Should the launch be delayed today, liftoff tomorrow is scheduled for 1:18 p.m. CDT.

McBride to leave; Brand to command

STS-33 postponed to protect Galileo mission

The commander of an upcoming space shuttle mission has announced his intention to leave NASA next month, and one of two Department of Defense-dedicated space shuttle missions planned for this year has

Astronaut Jon A. McBride, a Navy captain, announced Monday that he will leave NASA on May 12, and that he plans to retire from the Navy in the near future.

command the STS-35 ASTRO-1 mission, scheduled for launch in Center to concentrate on returning the

March 1990. Vance D. Brand will orbiter Columbia to flight status as succeed McBride as STS-35 commander.

In another shuttle program development last Friday, Rear Adm. Richard Truly, NASA associate administrator for space flight, announced that STS-33 will not be flown in order to protect the opportunity to launch the Galileo mission early in its October launch window.

The removal of the Aug. 10 launch McBride was named last year to from the mixed fleet manifest also will allow launch teams at Kennedy Space

soon as possible. STS-28, which was scheduled for launch July 1, is now expected to lift off in early August. STS-33, which originally had been planned for August, will be flown after the STS-34 Galileo mission. Launch dates for both missions will be set at their respective flight readiness

'NASA management has become increasingly concerned that the work involved in preparing the orbiter Columbia for its first flight in over Please see McBRIDE, Page 4

contribution to NASA and to JSC by doing their jobs, but they have energy Threshold's organizing group began meeting informally — primarily on their personal time — in February

Senior managers also formed a threemember advisory committee to work with Threshold. Participation in Threshold is open to all civil servants, DeTroye said. There are no age or years-of-service

1988 and subsequently obtained the

center's management approval.

and the desire to do more.'

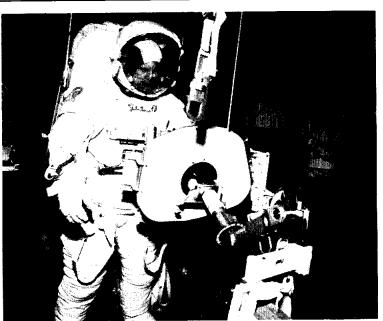
requirements. Threshold will host a kick-off meeting for those interested May 1 at 10 a.m. in the Bldg. 30 auditorium.

The group's goals are:

- To provide a forum for diversified educational opportunities. To improve productivity at JSC.
- To facilitate the development and

motivation of a dedicated, innovative workforce.

Please see THRESHOLD, Page 4



TELESCOPE TOOLS—Astronaut Kathy Sullivan evaluates tools for use with the Hubble Space Telescope in Bldg. 32's Space Environment Simulation Facility Test Chamber B. Sullivan was preparing for Thursday's thermal vacuum test of the STS-31 tools. Sullivan is a member of thr crew that is to deploy the telescope in December.

Viewing room opens for employee visits

The Mission Control Center viewing room will again be open to badged JSC civil service and contractor employees and their families at designated times during the upcoming space flight.

Based on the current April 28 launch date, the second floor viewing room will be open April 29, 30, and May 1 (flight days 2, 3, and 4) from

Employees should wear badges when escorting family members through the visitor entrance on the northeast corner of Building 30. All visitors should limit their stay during busy periods.

There was such an enthusiastic response from employees during STS-29 that we definitely wanted to try it again," said Barbara Schwartz, protocol chief. "And with Magellan and its afternoon launch time, most of our viewing time is scheduled while the crew is awake."

Changes in the viewing schedule will be updated daily on the JSC Employee Information service at 483-6765.

Threshold Group looks toward tomorrow's JSC

By Kari Fluegel

The face of the average JSC employee is changing. It's getting younger, and the younger workforce is bringing with it a desire to make a difference in the years ahead.

That desire has manifested itself here in the form of The Threshold Group, a gathering of JSC civil service professionals committed to making contributions to JSC's and NASA's

In the past seven years, the number of civil service professionals with less than 10 years of service has more than doubled. In 1982, about 25 percent of the total professional workforce, about 630 persons, had fewer than 10 years of service. In 1989, that number has grown to 1,274, about 46 percent of the total.

These are individuals who want to contribute something over and above the requirements of their jobs, said Diane DeTroye, coordinator.

"They know they're making a

Ticket Window

The following discount tickets are available for purchase in the Bldg. Today 11 Exchange Gift Store from 10 a.m. to 2 p.m. weekdays:

General Cinema (valid for one year): \$3.50 each.

AMC Theater (valid until May 31): \$3 each.

Sea-Arama Marineworld (Galveston, valid until Aug. 17, 1990): adults, \$8.75; children \$5.50.

Sea World (San Antonio, year long): adults, \$17.25; children \$14.75.

Astroworld: adults, \$14.12; children under 4, \$11.99; season pass, \$32.36. Waterworld, \$8.15.

"Pericles, Prince of Tyre" (April 28, 8 p.m., Satellite Theatre, UHCL): \$4. "Blithe Spirit" (April 28 and May 5, 6, 12, 8:15 p.m., Clear Creek Country Theatre): \$5.

FEB-FBA Employee of the Year Luncheon (May 4, 11:30 a.m., Holiday Inn Crowne Plaza); \$15.

JSC Picnic (May 6, 11 a.m.-5 p.m., includes barbecue lunch, entertainment): adults, \$3.50; children under 13, \$2.50.

Ramses Egyptian Art Exhibit (May 20-21, Dallas, includes transportation, overnight accommodations, lunch, breakfast, admission): \$90.

Gilruth Center News

EAA badges-Dependents and spouses may apply for a picture I.D. 6:30-9:30 p.m. Monday-Friday.

Defensive driving— Course is offered from 8 a.m.-5 p.m. May 20: \$22. Weight safety-Required course for those employees wishing to use the Rec Center weight room. Upcoming classes will be 8-9:30 p.m., May 4 and 18: \$4.

Ballroom dance—Professional instruction in beginning, intermediate, and advanced ballroom dancing. Classes meet every Thursday for eight weeks, beginning May 4. Beginning and advanced classes meet 7-8:15 p.m.; intermediate 8:15-9:30 p.m.: \$60 per couple,

Aerobic and exercise—Both classes are ongoing: \$24.

Taekwondo and Hapkido-Korean art of self-defense, mental and physical discipline. Classes are 6:30-8:30 p.m, Tuesday and Wednesdays, beginning May 16: \$40 per person per month.

Almost anything goes—Six coed teams including three men and three women each are needed Saturday, May 6 at the JSC employee picnic. Each team member will receive a t-shirt and the entry deadline in May 2): \$10 entry fee.

Tennis lessons-Beginning tennis, Mondays 5:15-6:45 p.m. Six week course begins May 1: \$32 per person.

Dates & Data

Cafeteria menu-Special: tuna and noodle casserole. Entrees: broiled codfish, fried shrimp, baked ham. Soup: seafood gumbo. Vegetables: corn, turnip greens, stewed tomatoes.

Monday

Cafeteria menu-Special: meatballs and spaghetti. Entrees: wieners and beans, round steak with hash browns. Soup: chicken noodle. Vegetables: okra and tomatoes, carrots. whipped potatoes.

Tuesday

Inventors luncheon-The third annual JSC Inventors Luncheon will be held on May 2 to honor JSC employees whose NASA patents were issued last year. The luncheon will be at noon in the Gilruth Recreation Center upstairs dining room, room 216. JSC Director Aaron Cohen will present 18 plaques to the 13 individual inventors. Contact the JSC Patent Counsel, x31012, for more information.

Cafeteria menu-Special: fried chicken. Entrees: beef stew, shrimp creole, sweet and sour pork chop with fried rice. Soup: beef and barley. Vegetables: stewed tomatoes, mixed vegetables, broccoli.

Wednesday

Cafeteria menu-Special: Swiss steak. Entrees: fried perch, New England dinner. Soup: seafood gumbo. Vegetables: Italian green beans, cabbage, carrots.

Thursday

Cafeteria menu-Special: stuffed bell pepper. Entrees: turkey and dressing, enchiladas with chili, wieners and baked beans. Soup: cream of chicken. Vegetables: zucchini, English peas, rice.

May 5

Cafeteria menu-Special: Salisbury steak. Entrees: baked scrod, broiled chicken with peach half. Soup: seafood gumbo. Vegetables: cauliflower au gratin, mixed vegetables, buttered cabbage, whipped potatoes.



JSC picnic—The 1989 JSC Picnic, centering around the theme 'Gateway to the Stars," will be from 11 a.m.-5 p.m. May 6 at the Rec Center. Activities will include a dunk tank, bingo, teen band, horse shoe tournament, Almost Anything Goes. pony rides, a petting zoo and more. Tickets are \$3.50 for adults and \$2.50 for children under 12. Tickets will be available at the Bldg. 11 Exchange Store through May 3.

May 10

PSi meets-The Clear Lake/ NASA Area Chapter of Professional Secretaries International (PSI) will meet at 5:30 p.m. May 10 at the Holiday Inn on NASA Road 1. Richard Kohrs, deputy director of the National Space Transportation System Program, will speak at 7 p.m., followed by installation of new officers. Dinner is \$9; for reservations, call

Mary Todd, 282-3942. For more information, call Lillian Hudson, x31032.

May 16

IEEE seminar—The IEEE Education Committee will present "The Integrated CASE Satellite Seminar: Methodology and Technology for a New Generation of Information Systems," from 8:30-noon May 16 at the Rec Center. Cost is \$4 per person. For more information, call 333-7029 or 333-6544.

May 18

AIAA technical symposium—The 14th annual Technical Symposium, "The Next Era in Space" cohosted by the American Institute of Aeronautics and Astronautics and the University of Houston-Clear Lake (UHCL) High Technologies Laboratory will be May 18 at UHCL. Owen Morris, president of Eagle Aerospace Inc., will be the featured speaker. For more information, call Bill Geissler, 333-6863.

May 23

BAPCO meets—The Bay Area PC Organization will meet at 7:30 p.m. May 23 at the League City Bank & Trust. For more information, call Earl Rubenstein, x34807, or Ron Waldbillig, 337-5074.

May 25

Shuttle-C users' conference-Marshall Space Flight Center and Shuttle-C contractors will host a free Shuttle-C Users' Conference May 25-26 in Huntsville, Ala. The program is designed to fully explain Shuttle-C and provide potential users an opportunity to help define needs and requirements for a heavy-lift launch system. For more information, call David Christensen, 205-721-5507.

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. Send ads to Roundup Swap Shop, Code AP3, or deliver them to the deposit box outside Rm. 147 in Bldg. 2.

Property

Sale: Townhome, 3-2.5, covered dbl. carport and patio, 6 blks. from JSC, \$48,000. Bob, x32193 or 332-3817.

Sale: Seabrook, 3-2-2, FPL, spa w/redwood deck, recently remod, new A/C, heater, roof, much more, corner lot on cul-de-sac, assum. 9 7/8%, \$70,000 by owner. Richard, x30271 or 474-9334.

Sale: Oceanfront time-sharing condo, 5-star rating. Cocoa Beach, FL., take over payments. Kelly, x3-1356 or 488-4870.

Rent: Galveston beach house, 2 BR, front row adjacent to San Luis Pass fishing pier, weekends or weekly. 894-0979.

Sale: Friendswood/Sun Meadow Estates, wooded lot in estab. neighborhood, cul-de-sac. bordered by stream & golf course on 2 sides, approx. 245' deep and up to 86' wide, util. on site, \$31,500. Doug, x32860 or 486-7412.

Green patio nome, 2 BR, 2 BA full-sized study, 2-car detached garage, 5 blks. from JSC, low 90's. Bob, 488-0397.

Sale: Webster, 3-2-2, new roof and carpet. gameroom, detached garage, near JSC, med. center, Baybrook, \$59,500. Owner, 332-5177. Sale: Toldeo Bend, 7 lots (2 waterfront), all

heavily wooded 334-1909 Sale: Heritage Park, 4-2-2, clean, walk-ins, sep. master suite, patio cover, fenced, stove, refrig., assum, VA loan, 334-1909.

Lease: Pearland/Dixie Hollow, 3-2-2, clean, ceiling fan, inside util. room, new paint, fenced, nice neighborhood, \$525/mo, 482-6609

Lease: Friendswood/Heritage Park, 3-2-2, new section, FPL, kitchen, fenced, new paint,

ceiling fan, \$625/mo. 482-6609. Sale: Galveston waterfront, 3-3-6, deck, spa, and extras, view w/infinite horizon. 334-1909.

Sale: Seabrook, 2-1, on 3.24 acres, 5 mi, from NASA, secluded, \$97,500. 532-4784. Sale: League City, 2.06 acres, city water and

sewer avail., 15 min. from NASA, \$39,950, 554-Sale: Friendwood/Heritage park, 3-2-2, 5 yrs.

old, clean, near FM 2351, assum. 9.5 FHA, \$65,000. Vincent, x35021 or 482-5615. Sale: Townhome, 3 BR, across from NASA, lg. courtyard, pool, patio, sunroom, low 50's.

Rent: Cancun. MX., 2 BR villa, 5-star resort, sleeps 6, satellite TV, kitchen, maid serv. incl., can divide, \$135/night, Jul 29-Aug. 5, 729-0654.

Rent: Dickinson 3-2-2, fenced pool, low dep., \$550/mo. Sharon, 241-2285 or 337-3576. Rent: Webster condo, 2-2-CP, W/D, FPL, tennis court, pool, no pets, avail. May 1, extras, like new, \$450/mo. plus dep. 485-6021.

Sale: '82 Fleetwood Festival mobile home, 2-2, 14' x 72', CA/H, appli., ex cond., \$9,000, OBO. 474-4306 or (409) 925-5554.

Sale: Middlebrook, 3-2-2, 2,050 sq. ft., heated pool and spa, spiral staircase, loft, FPL, ceiling fans, ceramic tiles, new paint, walk-ins, open floor plan, \$109,000. 480-8606. Sale: Alvin, 3-2-2, study and playroom,

assum. 8.7%, must qualify and equity, \$72,000. 331-9709 or 333-7494.

Sale: Executive bachelor patio home, 2 or -2-2, 5 blks. from JSC west fence, extensive amenities, low maint, very private, low 90's. 488-0397

Sale: Alvin/Pearland, brick 3-2-2, on 3/4 acre, workshop area, on cul-de-sac, 1,800 sq. ft., FPL, CA/H, fenced dog kennel, patio, lg. LR beamed cath. ceiling, \$53,000. 977-0223.

Sale: Nassau Bay, 4-2-2D, 2,180 sq. ft., storm windows, doors paneled, family room, bay window, garage workshop, \$108,000. 333-

Cars & Trucks

'82 Pontiac, J2000 hatchback, good cond., blue, 2 dr., \$1,500. Donna Ellis, 480-8190 or 280-8390

'78 Corvette, Silver Anniv, Edition, new 2-tone silver w/oyster white int., all power, T-tops, 14K mi. on new Corvette eng., totally restored to showroom cond., \$11,250, fin. avail. Richard, x30271 or 474-9334.

'76 Firebird, P/S, P/B, auto. trans., tilt wheel, 350-2 barrel, 2 new front tires. x39370.

'88 Dodge Ram 50, 5-spd., A/C. x39370 '85 Dodge Omni GLH Turbo, full roll cage spare roller, eight wheels, fast, less than 1,000 ni. on rebuild, \$3,000, spares nego. x32949.

'80 Chevy Capri Classic, 4-dr., P/B, P/S, A/ C, cruise, AM/FM radio, new brakes, shocks, alternator, water pump, headliner, dash cover, and tires, silver w/maroon int., \$2,400. Easley x36517 or 482-7112.

'85 Pontiac Grand Am, 3.0 eng., clean, good tires, ex. cond. 334-1909.

'85 Camaro, V-6, cruise, tilt, custom mag wheels, A/C, new exhaust, 53K mi., immaculate cond., \$4,650, 486-5773.

'86 Ford Taurus, 4-dr. sedan, loaded, 41K mi., \$8,000 or assum. \$294/mo. GMAC. 488-6610.

'80 Mercury Capri, '82 clone, special order truck L-6 eng., 4-spd. O.D., A/C, AM/FM/ST/ Cass.,/Eq., 8 spkr. and boost, P/S, tilt, 4-way seat, gauges, console, 5 Michelin XZX's, many new parts, nice cond., orig. owner, \$2,100, OBO. 488-8601

78 Olds 88, runs, \$700, OBO. x33862.

'65 Jaguar, 4.2 type E, candy apple red, garage kept, ex. cond., all orig. int., \$19,000. Mary, x36369 or 326-2731.

'82 Ford Escort Hulk, good for parts only, BO x38294 or 482-6816.

'86 Honda Civic, good cond., new tires and batt., A/C, AM/FM/cass., auto. trans., 65K mi., \$6,200. George, x36461 or 482-7890.

'88 Toyota Camry, lux. ed., fully loaded, blue, sunroof, power package, auto. trans., ext. warr.,

6 yr./60,000 mi., approx. 10,000 mi. Brian, 554-7496 or Ursula, x3330 or 280-1500.

'79 VW camping bus, 1.6 liter eng., complete Westfalia equip., fairly new, \$1,200 nego. Wolf, 333-6564 or 482-3824. '85 Dodge Ram D-50 pickup, white, 56K mi.,

sporty, reliable, recent tuneup, new radials, nice stereo, \$3,500 firm, 333-3508. 78 Chevy Malibu classic wagon, P/B, P/S,

C, runs, body needs work, \$300. Tom, 282-2425 or 486-1152. '77 Chevy Nova, 6 cyl., low mi., eng., needs some clutch work, \$800, OBO. Scott, 485-4364.

'76 Malibu Classic, 2-dr., 350 V-8, P/B, A/ C, AMFM/cass., extremely dependable, \$800. Craig, 333-6779 or 480-3246.

80 Kawasaki Enduro, 100cc, garage kept, red and black, good helmet, \$300. Josh, 486-

Honda 650 Turbo, low mi., new tires, new batt. 334-1909. 82 Yamaha Maximum 1100, shaft drive, air

shocks, computerized, black, very clean, \$1,650. David, 280-8164 86 Honda Reflex, 6-spd., on-off road, 141

actual mi., Fulmer full prot. matching helmet, both like new, garage kept, \$1,200. x37850. '84 Suzuki 125 street bike, matching helmet, good cond., elec, start, \$400, x37850.

Boats & Planes

'72 Hobie 16, dual trapeze, 2 sets of sails, trailer, hiking stick, extras, \$1,000. Robert, 484-

'80 16' Lonestar center console w/trailer, 70hp Johnson, live well, \$3,000, OBO. Amy, x38211 or 332-0356.

'87 Aquacat Catamaran, ex. cond., fast, easy to handle, \$1,075. 474-7248.

14' Jon boat narrow, 7 1/2hp Mercury, mini Kota 17-lb. thrust trolling motor, swivel seats, carpeted, gas tank, trailer, \$700. Doug, x36563 or 332-0704

'78 20' Glastron boat w/trailer, 200hp Johnson, Lorrance depthfinder, compass, Captain chairs, Bimini, live well, \$6,500, OBO. Amy, x38211 or 332-0356

Audiovisual & Computers

IBM-XT, like new, hard disk, graphics card, manuals, covers, \$750. Ben, x36795 or 332-

Apple II Enhanced, A.E. Ramworks, 80 column memory card, 384K RAM, 2 disk drives, parallel printer card, 300 baud modem card, CP/M card, NEC monochrome monitor, system saver w/fan, manuals, programs, \$800, OBO; Apple II+, 64K RAM, language card, NEC colo monitor, 1 disk drive, joystick, manuals, programs, \$300, OBO. John, x31528 or 991-

Household

Design registered armoire, \$600; set of tables. \$15; 2 chairs, \$40; TV table/cabinet, \$20; microwave stand, \$45. 996-7750.

Matching table set: coffee table, end table, back of couch table, beveled glass tops, \$125/ all; antique Grandfathers clock, ex. cond., \$2,500. 488-5564.

Two large chairs, carved, beautiful cond., antique, new covering, \$500/both, 488-5564.

Couch and love seat, good cond., brown w/ rough texture fabric, \$150/both. x37267 or 554-

6628.. Dining table, black mahogany w/leaf, four chairs, two Captain chairs, buffet w/special lined silverware drawer, brass drawer pulls, perfect

cond., \$650. 996-9690. Zenith console solid state TV, 26" screen, \$125, 534-3167

TV stand, \$20; dining table w/leaf, wood grain, 4 chairs w/casters, \$80. x38643.

Couch, love seat, recliner, \$400, nego. 996-

Queen size sensation water bed w/tubes, looks like standard mattress and box springs, 4 mos. old, \$400. David, 282-3827 or 554-5514. Table w/leaf and 6 chairs, \$75; desk, \$40. 996-9157.

Sofa bed, reupholstered in teal plaid, must sell by May 15, BO over \$100, extra fabric avail also. 280-9488.

Wanted

Want 35 to 55hp Chrysler outboard motor for parts. Jerry, x39287.

Want babysitter in my home or yours, Seabrook area for 13-mo, old girl, 326-1551 or 326-3800.

Riders wanted for van pool from West Loop Park and Ride to NASA. Richard, x37557. Want steamer trunk, age not important, prefer humpback type. Steve, x56725.

Photographic

Mamiya-Sekor TL-100 camera. Rita, 483-

Beseler 23CII enlarger w/colorhead and stabilized power supply; PM2 color analyzer 50mm f2.8 and 80mm f5.6 El Nikkor lenses: lensboards have pilot lights; neg. carriers for 35mm, 110, 6x7; 35mm slide carrier, timer; motor base w/8x10 and 11x14 print tanks; borderless easel; contact printer; subtractive calculator; color thermometer, \$1,000. Randy, 326-1775.

Pets & Livestock

Mexican redhead parrot w/cage, 2 1/2 yrs. old, says "hello", \$1,200, OBO. x34418 or 332-4703.

Lost & Found Lost diamond stud earring, white gold, reward.

Miscelianeous

Rita Sommer, 280-3643 or 649-1493.

Hamster habitrail, complete, used 1 mg., \$25: metal tennis racket, \$10. x32193.

Golf clubs, Tour Model system II, 1-9 PW and SW, \$185; peripheral weighted, 1 and 3 metal woods, \$70/both or \$40/ea. David, 282-3827 or 554-5514.

Century motor for pool or spa, 1/2hp; RVS

outdoor heat pump spa heater, 80gpm, 14,000 BTU/hr. 115V; new elec. pool purifier, chlorine generator. 488-4002.

AM/FM digital car cass., \$75; 25-inch Zenith remote control console TV, \$250; ski machine, like new, \$50; Lovejoy sat prep., \$40 or will trade for Quicken; Apple computer on a card for your IBM PC/clone, \$350. Tony, 280-1564 or 482-4156.

Briggs & Stratton self-propelled lawnmower, 2 yrs. old, needs minor maint, \$75. Lynn, x37159. Wedding ring set, white gold, Marquis cut, 37point engagement ring w/matching band, \$950. Earl Rubenstein, x34807 or 326-2354.

Sony F-V3T dynamic microphone, \$12. Rich, x35137.

Sofa and 2 chairs, \$100; solid brass vanity table and chair w/mirror and cushion, \$175, OBO; sweater organizer, \$10; purses, different sizes and shape. x35046 or x36186.

Antique humpback steamer trunk, 34x21x28, 95% HDW/trim, \$195; elect. dust collector for furnace, H/P, "Edison", w/pressure switch, 800-1600 CFM, was \$380, now \$150; mirrors, 2 goldveined, 45x91 1/2, \$100/ea. Doug, x32860 or

Danish sofa, \$80; assorted lamps, \$25-\$50; baby paraphernalia and clothing; accent tables \$2-\$10; Atari computer w/3 games, \$80; B/W TV, BO. Mary, 486-5247. G.E. white dishwashers, \$60, OBO: Sears

sewing machine in wooden cabinet, recently serviced, good cond., \$125, OBO: G.F. 13" B/ WTV, like new, \$35, OBO; baby clothes, all sizes, new cond. Wendy, x37824 or 672-6746.

14' sailboat, "Flying Fish" trailer and life vests incl., \$500; octa-Gym exer. machine, \$70. 486-4439

Built-in G.E. double oven, ex. cond.; new carpet, very high grade, rust color, 2 pieces, 12'x12'/ea. 488-2822.

B/W and white film enlarger, \$49; film developer, \$10; 5 pans, \$10; 5 jugs, \$15; buy all and get free chemicals; color slide enlarger and printer, \$100; 3-story cat house, \$39; large backpack, \$30; 2-man backpack tent, \$50; Cocktail cage, \$15, x32949.

Colt Navy .44 percussion cap repro, revolver. \$55; Winchester pump, .22 collection, serious inquiries call for details; 1933 Philco Model 60B tube cathedral radio, restored, \$125, OBO: Sierra, Homady, Speer bullet boards, \$35/ea. Boyd, 488-8806

Sears 3 1/2hp self-propelled lawnmower, side discharge, front wheel drive, rear basket, used only 2 yrs., \$95; 3-spd. boy's bike, never used, \$35, 488-5307. 10 channel programmable base scanner, 10

channel programmable portable scanner; 2 channel pocket receiver: 4 channel crystal handheld scanner. Josh, 486-6567. Head skis, 160's, incl. poles, boots, Solomon bindings, carry bag, \$150; speakers, \$40. 996-

7750. Queen size mattress and box springs, ex quality, \$125; lg. rabbit cage, \$20; round table,

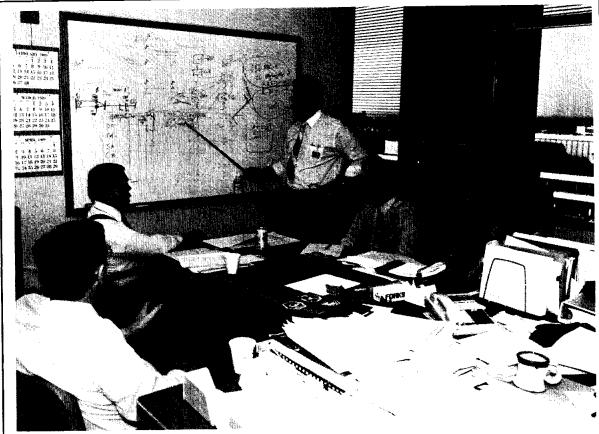
wood top, \$15; dresser and night stand, \$15/ both. 480-9363.

Space News Roundup

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Members of JSC's Test Operations Institutional Safety Branch meet to discuss the day's activities. From left are Rod Taylor of Webb Murray & Associates, safety engineer Dan Clem, Branch Chief Richard Holzapfel, and Gary Jones and Kim Gray, also of Webb Murray. Below: Wayne Gremillion inspects a hypervelocity light-gas gun in Bldg. 267.





Institutional safety troops keep never ending vigil against hazards

Safety Action Hotline

483-7500

By Kelly Humphries

For many people at JSC, when someone says "safety" these days, the first thing they think of is safe flight of the Space Shuttle.

But there is another kind of safety—institutional safety—that affects everyone at JSC, whatever they do.

The men and women of the Test Operations and Institutional Safety Branch watch out for every JSC employee—civil servant or contractor—who participates in ground operations at JSC, White Sands Test Facility, Ellington Field, Rockwell's Downey and Palmdale facilities and McDonnell Douglas' Huntington Beach facility, said Richard Holzapfel, chief of the branch that is part of JSC's Safety, Reliability and Quality Assurance Directorate.

Basically, their jobs are to identify potential hazards in JSC work places, investigate accidents and reports of hazards, and educate employees about how to spot and correct hazards.

"We're here to educate, to assist the line managers in developing a good safety program, and—hopefully—we're here to steer them in the right direction," said Wayne Gremillion, one of the branch's safety engineers who keeps tabs on Space and Life Sciences test operations. He documents safety analysis for tests, reviews test procedures, and participates in test readiness reviews.

"We have had avenues to report hazards or concerns here since the beginning of the center," Holzapfel said. "It's a constant vigil of verification and observance to try to anticipate where the hazards are going to be and the effects an accident might have on the

facilities or operations."

Accidents that affect JSC facilities can affect flight safety, Holzapfel noted.

"Mission control is what I consider a big chunk of GSE (ground support equipment) for the flight. As a result, we take a hard look along with our STSOC contractor at the safety of those facilities."

Dan Clem, the safety engineer who devotes much of his time to making sure crew

training is conducted safely, said the branch also devotes a lot of effort to ensuring that flight hardware is not damaged during testing at JSC.

Such damage could cause years of delay in a program such as construction of Space Station *Freedom*, he said.

"A major task for the future is going to be space station facilities, due to the increased value of hardware and cost of the program," he said. "We're less tolerant of any ground loss of flight hardware. If we lose some critical component and there's only one of them, it could push back the schedule for two or three years."

Matt Cole has recently made the transition from institutional safety to the Mechanical Systems Safety Branch, which makes him even more directly connected with flight safety. Cole, a fire protection engineer, previously had been concerned primarily with fire safety at JSC. Now, he's begun working with the fire safety aspects of manned spacecraft—testing, preventing,

detecting and extinguishing fire aboard orbiting vehicles. He said many of the principles are the same.

"The most important aspect is identifying your vulnerable points and doing something about them to lessen the risks," he said

Holzapfel said there are two main reasons accidents occur. First, because the people involved don't recognize the

hazard, and second, because they underestimate the risk or the probability that an event can or will take place.

will take place
"The safety

office tries to take on the role of being an independent assessment," Holzapfel said. "We try to keep the guy at the grassroots involved as much as possible, but we look at the incident and not the names. A lot of times we're not even interested in who it is, we're just interested in what it is."

There's even a JSC Action Hotline—x37500—that employees are urged to call if they come upon a safety hazard that should be corrected.

Anyone who feels a hazard exists and is not being dealt with should call the hotline, said support contractor Rod Taylor of Webb Murray and Associates. There are also divisional safety representatives within each organization.

"If they don't get satisfaction from their supervisor, they can go there, come to Richard or go higher in their organization," Taylor said

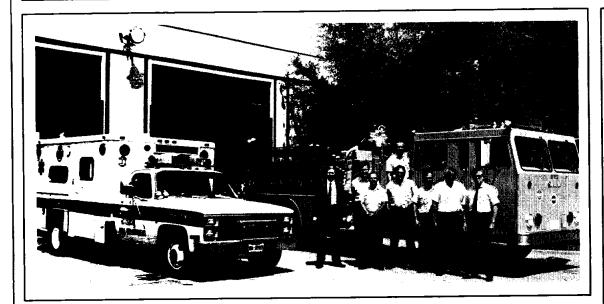
The first step in avoiding accidents is knowing how to identify hazards. Holzapfel said his branch has recently completed a safety orientation videotape to help new employees identify hazards. There also is a library of safety-related videotapes in the Safety Learning Center in Bldg. 226, he said.

"No matter what you do there are some risks," Holzapfel said. The safety office tries to evaluate what is an acceptable risk, using the JSC Safety Manual and well established standards such as the national fire codes, national electric codes and the life safety code.

"We have to consider the standards that are in existence," said Clem. "But we also need to be flexible in our approach in looking for new ways of controlling hazards. We try to be reasonable with the folks in line operations to make sure we're not hampering their activities by blindly following standards."

Although safety does have the authority to shut down extremely hazardous operations, that authority is used only as a last resort.

"Safety tries to work all operations as a team effort with the facilities personnel," Holzapfel said. "We go through a process where we try to eliminate the hazard in an orderly fashion. With the knowledge we gain from the facilities personnel and the expertise in hazard assessment we have in this branch, we can take a realistic look at the situation and see if there's an acceptable risk."



Above: Matt Cole stands with members of the Houston Fire Department and contractor Webb Murray, who help keep JSC fire safety conscious and arrange for response to fires, leaks and other accidents at JSC. Right: Dan Clem helps assure that test operations in the Bldg. 9A and 9B mockups are as risk-free as possible.



Seniors 'experience' management-for-a-day

By Linda Copley

Area high school seniors and teachers spent a "day at the office" at JSC on Wednesday as part of the second annual Management Expe-

Sponsored by the American Enterprise Committee of the JSC chapter of the National Management Association (NMA), the day-long event paired 27 local students and seven teachers with JSC managers on their rounds.

'We (The American Enterprise Committee) invented this event," said Faith Vilas, past chairman of the American Enterprise Committee of JSC's NMA chapter.

"It appeared to us to be an excellent way to encourage an understanding of management in young people who are still making up their minds about their own careers, what it's like to be

and especially, within the space program.

Participants were greeted by JSC Director Aaron Cohen. For the rest of the morning the group-including specially selected students from Clear Lake, Clear Creek, Dobie, Friendswood, Pearland and Booker T. Washington High Schools- toured Mission Control, the Weightless Environment Training Facility (WET-F), and the space shuttle and space station mock-ups.

Students were chosen by their school principals for interpersonal and leadership skills and interest in learning about NASA leadership. Teachers representing each high school accompanied the group.

After luncheon, everyday office routine became the classroom as

a manager in the federal work place, managers went about their normally activity at JSC for National Space scheduled duties shadowed by their selected pupil/observer.

"It was important to include the teachers as well," said Vilas, because they can take the experience back to the classroom and let other students know what 'the real world' of the JSC workplace is like."

John Blalock, manager of space station projects for the Safety, Reliability, and Quality Assurance (SRQA), noted that the Clear Creek student who accompanied him stated his interest in knowing "exactly how the space shuttle is managed" on his application form.

"I happen to have stood in for our director and deputy director at the weekly SRQA schedule review." explained Blalock. "We went over documentation covering all SRQA

Transportation System (NSTS) and orbiter activity. Since schedules are key to management planning, I think the afternoon was a valuable experience for a student with this interest

A Dobie high school honors senior intending to major in biomedical engineering at Columbia University provided "a bright, fresh look at what we are doing by someone interested in pursuing a career in our discipline," according to Dr. Carolyn Huntoon, director of Space and Life Sciences. Huntoon's afternoon agenda found her student observing a board meeting of the annual JSC scholarship recipient committee and reviewing films for use for the Aerospace Medical Association meeting in May.

Elena Huffstetler, manager of the career," she said.

Space workers must approach

their tasks with a renewed sense of

vigor and a willingness to experiment

in planning America's future in space,

said American Astronautical Society

newly named JSC Space Stations

Project Office Manager John Aaron.

Aaron was one of the panelists at the

AAS's regional symposium held at

the Gilruth Recreation Center on April

should not wait for the next John F.

mandate. That's unlikely to happen."

Instead, Aaron said, NASA needs

to promote the entrepreneurial spirit

by changing the environment to

make it economically feasible for

commercial enterprise to move into

that will be needed to support

humans in space," said Carolyn

Huntoon, JSC Space and Life Scien-

ces director and chairwoman of the

Joe Allen, a former astronaut and

president of Space Industries, Inc.,

chaired a life support panel that

focused on robotics and automa-

tion—essential elements in operating

the space station. Modifying space-

suits to enable good mobility at

increased pressures and readying

workers for an increased reliance on

robotics on board Space Station

Freedom are steps in the right

Training is another area that must

be examined and redesigned to meet

direction, Allen said.

AAS's Southwest Section.

'We need to work on technologies

space.

Kennedy to give us a 10- or 15-year

"We must re-energize We

"We need new technologies," said

By Pam Alloway

(AAS) panelists recently.

Panelists promote

aerospace workers

Headquarters.

enterprise among

flight production management office for NSTS, is a veteran of the program, having hosted a teacher last year.

After an hour long overview to introduce this year's Clear Lake senior to the flight production world, Huffstetler and the student attended a NASA Management Instruction (NMI) meeting that covered manifesting payloads on the shuttle.

We discussed what the requirements were from a scheduling point of view-running the whole gamut of policy formulation and how to get it approved," Huffstetler said.

"I wanted to expose him (the student) to setting policy, since he is seeking a political science degree. I think this good, 'working' example of policy analysis and development should prove vital to that type of

Hinners, Odom to leave agency

(Continued from Page 1)

"We are not experiencing the same kinds of patterns and concerns that are being voiced at some of the other

Hinners also serves as the NASA chief scientist and oversees the institutional management of the agency. As NASA chief scientist, he is the principal adviser to senior management on agency-wide aspects of NASA's scientific activities.

"I regret leaving before the transition to the new NASA administration is complete," Hinners said, "but uncertainty in interpretation of new postemployment laws led me to move the date forward. I am heartened, however, by knowing that the incoming administrator and his deputy will provide excellent leadership and advocacy of NASA and its institution."

Tom Moser, deputy associate administrator for the space station program, will serve as acting associate administrator until Odom's successor is named.

"After 33 years, I've decided to make a career change," Odom said. "I regret the timing of my decision, but the impact of some upcoming changes on government retirees made it such that I did not get to pick the most desirable or optimum time

Before his appointment to senior Headquarters management in June 1987, Hinners served five years as director of Goddard Space Flight Center. From 1979 to 1982, he was director of the Smithsonian Institution's National Air and Space Museum, and from 1974 to 1979 he served as NASA associate administrator for space science. Hinners joined NASA in 1972 as deputy director of lunar programs, Office of Space Science, NASA Headquarters.

Odom was appointed associate administrator for the space station program in April 1988. He moved to Washington from Marshall, where he had served in a number of key positions over the past 30 years. Among the positions he held at Marshall were director of the Science and Engineering Directorate, manager of the Space Telescope Project and manager of the External Tank

Space News Roundup

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Editor Kelly Humphries Associate Editor Linda Copley



SALYUT TO FREEDOM—Soviet Cosmonaut Valentine Lebedev checks out a proposed Space Station Freedom sleep restraint in JSC's Bldg. 9B habitation module mock-up. Lebedev, who has spent a total of 219 days in space aboard Soyuz 13, Soyuz T-5 and the Salyut 7 space station, was here last week to promote his book, "Diary of a Cosmonaut," and tour NASA facilities.

Contract managers week at JSC

More than 400 JSC employee their professional achievements. members of the local Space City Houston chapter of the National Contract Management Association (NCMA) will join the 23,000 NCMA members nationwide in the observance of National Contract Managers Week May 1-5.

Posters bearing the theme "Proud to Serve the Public's Trust" will be displayed in center buildings to remind employees of the vital role contract managers play in the nation's economy and the pride they take in Randy Parker at 488-9005.

As part of an extended events schedule designed to promote an understanding of the procurement field, Dr. James Neal, director of procurement at JSC and past local and national NCMA president, is scheduled to speak at the Space City Rotary Club meeting at 11:30 a.m. June 12. The meeting location has not been announced. For more information, contact Peggy Zahler at x35511, Bill Drastata at x31813, or

> service ranks. Another activity, Threshold LITE

> "A lot of what we do out here are big programs and you don't see those from start to finish," DeTrove

> The Threshold LITE group currently is developing a Zero-G Mass

to build such an infrastructure, we must pay more attention to training training supported by the government and activities sought by universities and industry.

Arnauld Nicogossian, director of the

Life Sciences Division at NASA

or two nations," he said. "But in order

'Space is not the domain of one

Communicating with the academic and industrial world on life sciences issues is a necessary part of that infrastructure, Nicogossian said.

Basically, life sciences is a different life sciences than it was 10 years ago and we know where we want to go," he said. "The fixing of the budget today will not do if one really wants to improve. We have to have a different infrastructure than we have.'

Dr. Antonio Guell, manager of the Space Medicine Program at the Centre National d'Etudes Spatiales' (CNES) Department of Space Biology and Medicine in Toulouse. France, spoke on cooperative space investigations with the Soviet Union.

Guell, who researches methods of counteracting the debilitating effects of microgravity on the human body, has participated in French investigations conducted on the Soviet Salyut and Mir space stations, and on the

Guell most recently was the leader of the French team that went to Star City, the Soviet space training center outside Moscow, in support of French astronaut Jean-Loup Chretien's stay on Mir last year. Chretien spent threeand-a-half weeks on board Mir with tomorrow's challenges, said Dr. five cosmonauts in 1988.

Threshold Group hopes to make a difference

(Continued from Page 1) To retain the corporate knowledge at JSC.

NASA's image. To discuss, develop and eval-

uate relevant issues and new ideas. Threshold's focus will be on its activities. Among those, the organization has established a Peer Adviser Group. The group will help

new hires settle more quickly into

each new person with an adviser who will introduce JSC life.

"It's kind of a welcome wagon for To improve and promote new employees," DeTroye said. "It's a way to reach down and offer the benefit of your experience with the center to somebody new who is just coming on board.

The Peer Adviser program will be directed more to employees starting new with the center rather than those making the transition from cothe JSC organization by matching op or intern program to the civil

(Low-cost Intermediate Technology Experiment) is an opportunity for members to gain small project experience by completing small, short-term tasks.

Measurement Device to monitor bone and muscle mass loss. Once that project is completed, a new experiment will be selected.

Other planned Threshold activities include participation in the new-hire orientation program; increased participation in the speaker's bureau; a tours and lectures committee; a Threshold forum to assist the retention of the corporate knowledge; and white paper study groups.

McBride says making decision to leave was difficult

(Continued from Page 1)

three years is taking long enough that it might endanger the option to launch Galileo at the opening of its launch window," said Truly, who also is NASA administrator-designate. "Our overriding objectives in this situation are to protect the Galileo window and to fly Columbia as early as we can. We currently are assessing manifest options downstream of Galileo."

McBride recently completed an

assignment at NASA Headquarters as the acting assistant administrator for congressional relations, a post he held since September 1987. "I've spent an extremely rewarding

25 years with NASA and the Navy, he said. "This move has been a very difficult decision for me. But in the final analysis, I felt it was time to make a career change and return to West Virginia. I'll continue to follow developments in the space program with

McBride was selected as an astronaut in August 1978. He was the lead T-38 chase pilot for STS-1, the maiden voyage of Columbia in April 1981, and a Capsule Communicator (CAPCOM) in Mission Control for STS-5, STS-6 and STS-7.

He flew in space as pilot aboard Challenger on STS 41-G in October 1984. McBride was scheduled to fly next in March 1986 as the commander

of STS 61-E. The flight was one of several deferred.

Brand joined NASA as an astronaut in 1966. He flew as Apollo command module pilot on the Apollo-Soyuz Test Project mission in 1975. Brand has also flown as commander of Shuttle missions STS-5 in November 1982 and STS 41-B in February 1984. Brand currently serves as JSC's assistant manager for space station integration and assembly.