



### High praise

JSC employees earn recognition through NASA Space Act Awards. Story on Page 3.



### Tether team

NASA names the crew of the second Tethered Satellite System mission. Story on Page 4.

# Space News Roundup

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No. 5

## 'Close calls' reporting plan is centerwide

A new procedure for reporting "close calls" is being implemented site-wide after successful testing at Ellington Field. A form is now available to help employees report any industrial safety hazards.

The new reporting system is part of a centerwide emphasis on safety that is being championed by JSC Director Dr. Carolyn L. Huntoon and her top managers. Statistics reveal there are about 300 close calls for every serious workplace accident. The new reporting system is designed to reduce these statistics.

"A close call is an incident in which there is no personal injury or property damage, but where that potential exists," said Dave Walker, chairman of JSC's Safety Review Committee.

"The close call reporting system allows you to raise a safety issue and solve it before someone gets hurt," said Newt Meyers, logistics manager for Ellington Field, where the system was field tested.

"At Ellington, we have seen some positive results. One month after the initial briefing we identified two things reasonably easy to fix that made our operation safer," he added.

The painted floors in the Ellington Field hangers were a potential hazard. After a submission of a close call reporting form, rubber stripped mats were placed in high traffic areas to reduce to potential to slip on the floors.

This new program will include a simplified reporting form that is divided into three sections: basic information, report of the incident and corrective action. Awareness briefings and posters also will be part of the new system.

"The new form makes it easier to report a close call," said Garlan Wood of Dyncorp. "Now when someone sees something that might go wrong, they can report it and get it taken care of before someone gets hurt."

To report a close call, employees should fill out a close call reporting form and either fax it to the close call manager at x33801 or call the Safety Action Hotline x37500.



The STS-63 crew takes time for pictures during the terminal countdown test. From left are Bernard Harris, Vladimir Titov, Mike Foale, Jim Wetherbee, Janice Voss and Eileen Collins.

NASA Photo

## What's your sign, tovarich?

New "call signs" will be heard in the Mission Control Center during STS-63 as flight control teams in both the United States and Russia support the first joint shuttle/Mir mission.

STS-63, which includes a shuttle flyaround of the Russian Space Station Mir, is the first mission during which control teams in Houston will coordinate activities with a control team in Kaliningrad, Russia.

To enhance the relay of information between the two control centers, a new position called the Russian Interface Officer, or RIO, has been established at JSC. The RIO's responsibility is to serve as

the primary communications officer with the Russian flight control team. The RIO updates the Russian controllers on shuttle related activities and issues, and relays messages from the team in Russia to the U.S. team. An interpreter works closely with RIO to assist in communication.

Also during STS-63, a team of NASA consultants and technical advisers will be stationed at MCC-Kaliningrad. This team will provide assistance and insight into the shuttle and Houston operations. The STS-63 NASA consultant team in Kaliningrad will be led by veteran Flight Director Bill Reeves.

## Discovery makes date with destiny, Mir space station

The Space Shuttle *Discovery* has a date with destiny and the Mir space station a few days from now as NASA takes a significant step in the growing cooperative effort between the United States and Russia.

The first shuttle mission of the year will feature a rendezvous and fly around of the orbiting Russian laboratory, the third flight of the commercial SPACEHAB microgravity research facility, deployment and retrieval of a free-flying astronomy payload and a five hour spacewalk by two astronauts.

*Discovery* faced a short, five-minute launch window shortly after midnight Thursday by Florida time standards. Flight controllers were to update the launch schedule based on the latest navigation data from Mir, thus setting up a Flight Day 4 rendezvous.

The six STS-63 astronauts—Commander Jim

Wetherbee, Pilot Eileen Collins and Mission Specialists Bernard Harris, Mike Foale, Janice Voss and Vladimir Titov—arrived at Kennedy Space Center late Sunday night.

Two crew members are scheduled to establish historic footnotes during the flight. Collins, making her first space flight, will become the first woman to pilot a shuttle and Harris, making his second flight, will become the first black human to walk in space.

The mission is scheduled to last 8 days, 6 hours, 13 minutes. Based on an on a Thursday morning launch, landing at Kennedy Space Center's Shuttle Landing Facility will be about 5:15 a.m. CST Feb. 10.

The historic first visit to Mir is a dress rehearsal of missions that will follow later in 1995. The rendezvous will test the systems and techniques currently planned for the first shuttle docking mission with *Atlantis* on STS-71 in June 1995.

The rendezvous will validate a

number of flight techniques that will be employed on subsequent docking missions. These techniques include the use of precision flying as the shuttle closes in on Mir, validating the use of a centerline camera for targeting the docking mechanism on Mir, verifying the absence of plume effects, demonstrating VHF radio communications, inspecting the Mir complex through photographs and video, and demonstrating the joint operations between Mission Control Centers in Houston, and Kaliningrad, Russia.



The SPACEHAB module, a pressurized, commercially developed space research laboratory in the forward end of *Discovery's* cargo bay, will significantly increase the pressurized working and storage volume normally available aboard the shuttle. More than 20 SPACEHAB-3 experiments represent a

cross-section of technological, biological and other scientific disciplines.

Also being carried on *Discovery* is the Shuttle Pointed Autonomous Research Tool for Astronomy-204, designed to obtain data in the far ultraviolet region of the spectrum from diffuse sources of light. Spartan first will conduct surface glow observations while on the end of the robot arm. It also will point at a Reaction Control System thruster to obtain far ultraviolet spectrographs.

After the Mir rendezvous, a crew member will again use the arm to release it. For about 40 hours, Spartan's instrument will observe various celestial targets. *Discovery* will then rendezvous with Spartan and retrieve it using the robot arm.

STS-63 will continue laying the groundwork for future space activities when Foale and Harris perform a five-hour space walk to test space suit modifications and practice handling large objects in microgravity.

## Bldg. 1 gets transformers

By Linda Copley

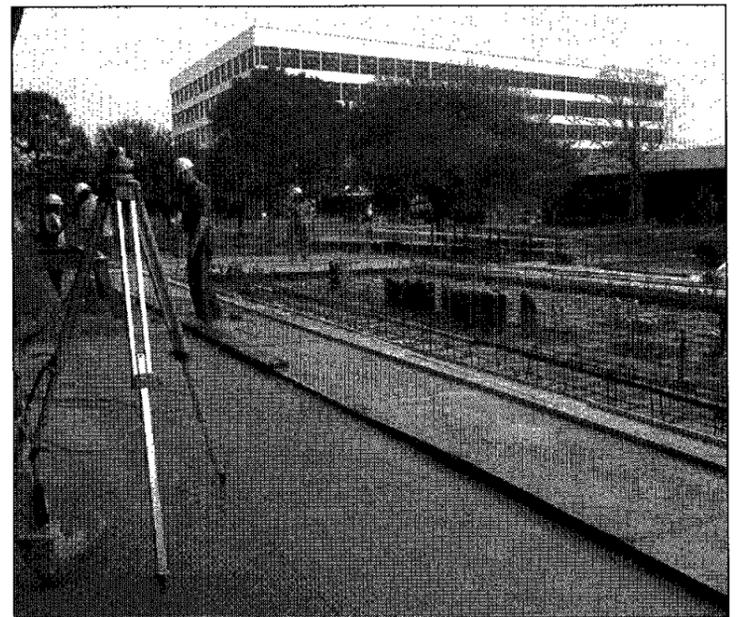
Lunchtime spectators of construction activities on the east side of Bldg. 1 will have a few more months of observation ahead.

New building transformers and associated switchgear will be installed in a new transformer yard being built at the first floor level adjacent to the Bldg. 3 cafeteria.

"The electrical system in Bldg. 1 is original and has never been upgraded," said Ron Stone, construction office manager for the Center Operations Directorate.

"Electrical requirements have changed with the advancement of computers. More complex electrical requirements are needed," he said.

The planned structural addition will replace existing equipment now slated for removal which has been located above the top floor of the nine-story building since its construction in the 1960s.



JSC Photo by Benny Benavides

Employees of general contractor C. N. Vick work on a new transformer yard on the east side of Bldg. 1. Modifications to the chilled water supply for an increase in the efficiency as well as effectiveness of the air conditioning system are taking place in the tunnels connected to Bldg. 1 at the same time construction goes on above ground. The project is scheduled for completion in early fall.

## Another buyout to help meet down-sizing targets

NASA Administrator Daniel S. Goldin told all NASA employees Tuesday that—at their suggestion—the agency soon will be offering another buyout.

"It's possible that cuts at NASA will be even deeper than we anticipated, so today, we're announcing a buyout," Goldin said in a short address broadcast on NASA Television. "It must be completed by March 31st; that's when our buy-out authority runs out."

JSC Human Resources Director Harvey Hartman said an agencywide policy on buyouts and early-outs is being developed this week at NASA Headquarters, and that he should be able to provide JSC employees with more specifics in a centerwide announcement by early next week.

Hartman said he expects the guidelines to be similar to those of last summer's buyout, which give full-time employees with at least one year of service lump sum payments of up to \$25,000 using a severance pay formula and restrictions on work-

ing for the government again until five years have passed.

The one major difference is that astronauts and Senior Executive Service employees will be eligible this time, he said, although there may be limits on the number of people who can leave from certain categories of the employee population such as secretaries, astronauts or certain administrative occupations.

"Every eligible NASA employee will be allowed to apply for a buy-out, agencywide," Goldin explained. "However, we will need to retain the right balance of skills. We will not jeopardize our ability to do our mission."

"I think we're going to be able to accommodate everybody who wants to go," Hartman said. "This is a proactive response to the manpower reductions we anticipate we're going to see. We would rather do reductions in a voluntary way. If you have questions about how this might affect you, talk to out people

Please see GOLDIN, Page 4

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## 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.

**Musical concert:** Les Miserables at 2 p.m. Mar. 26 at the Wortham Center. Tickets cost \$42. Tickets on sale through Feb. 10.

**Rodeo tickets:** Several performances to choose from. Tickets cost \$9.50  
**Moody Gardens:** Discount tickets for two of three different attractions: \$9.50

**Space Center Houston:** Discount tickets: adult, \$8.75; child (3-11), \$7.10.

**Metro tickets:** Passes, books and single tickets available.

**Movie discounts:** General Cinema, \$4.75; AMC Theater, \$4; Loew's Theater, \$4.75.

**Stamps:** Book of 20, \$6.40.

**JSC history:** *Suddenly, Tomorrow Came: A History of the Johnson Space Center.* Cost is \$11.

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## 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 NASA badge or yellow EAA dependent badge. Classes tend to fill up two weeks in advance. Payment must be made in full, in exact change or by check, at the time of registration. No registration will be taken by telephone. For more information, call x30304.

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

**Weight safety:** Required course for employees wishing to use the weight room is offered from 8-9:30 p.m. Feb. 7 and Feb. 23. Pre-registration is required. Cost is \$5.

**Defensive driving:** Course is offered from 8:15 a.m.-3 p.m. Saturday. Next class is Feb. 11. Cost is \$19.

**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.

**Aikido:** Martial arts class meets from 5-7 p.m. Tuesdays and Wednesdays. Cost is \$25 per month. New classes begin the first of each month.

**Tennis league:** Registration for the spring tennis league will be held Feb. 6. Cost is \$25. Contact the Gilruth Center at x33345.

**Country dancing:** Beginners class meets from 7-9 p.m.; advanced class meets from 8:30-10 p.m. Partners are required. For additional information, contact the Gilruth Center at x33345.

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

**Golf Association:** Sign up for the 1995 league will begin in Feb. To join call Harry Kolkhorst at x33312.

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

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## Dates & Data

### Today

**Cafeteria menu:** Special: tuna noodle casserole. Total Health: baked potato. Entrees: steamed salmon steak, baked chicken, fried cod fish, ham steak. Soup: seafood gumbo. Vegetables: French cut green beans, cauliflower with cheese, green peas, black-eyed peas.

### Monday

**Cafeteria menu:** Special: breaded outlet. Total Health: crispy baked chicken. Entrees: stir fry pork and rice, baked chicken, smoked sausage with German potato salad, French dip sandwich. Soup: cream of broccoli. Vegetables: okra and tomatoes, peas, navy beans, baby carrots.

### Tuesday

**Cafeteria menu:** Special: fried chicken. Total Health: vegetable lasagna. Entrees: Salisbury steak, steamed pollock, vegetable lasagna, French dip sandwich. Soup: split pea and ham. Vegetables: mixed vegetables, French cut green beans, pinto beans, vegetable sticks.

### Wednesday

**PSI meet:** The Clear Lake/NASA Area Chapter of Professional Secretaries International meets at 5:30 p.m. Feb. 8 at the Holiday Inn on NASA Road 1. Willie Williams, director of training at Talent Tree, will present "Hot Software of the '90s" For additional information, contact Elaine Kemp x30556.

**Astronomy seminar:** The JSC Astronomy Seminar will meet at noon Feb. 8 in Bldg. 31, Rm. 129. An open discussion meeting is planned. For more information, call Al Jackson at 333-7679.

**Toastmasters meet:** The Space-land Toastmasters meets at 7 a.m. Feb. 8 at House of Prayer Lutheran Church on Bay Area Blvd. For information, contact Darrell Boyd, x36803.

**Bike ride:** The JSC Bicycle Club will meet for a 1.1- and a 1.6-mile loop at 5:30 p.m. Feb. 8 behind the Grumman Bldg. at Ellington Field. For information call Bike Barn at 480-9100.

**Cafeteria menu:** Special: stuffed bell pepper. Total Health: baked potato. Entrees: stir fry chicken and rice, wieners and beans, fried fish, western special, beef, chicken sausage, Reuben sandwich. Soup: seafood gumbo. Vegetables: buttered rice, Italian green beans, corn O'Brien, peas and carrots.

### Thursday

**Cafeteria menu:** Special: barbecue smoked link. Total Health: roasted turkey breast. Entrees: turkey and dressing, beef stroganoff, steamed pollock, French dip sandwich. Soup: tomato Florentine. Vegetables: Spanish rice, lima beans, buttered squash, oriental vegetables.

### Friday

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

### Feb. 14

**NMA class:** The Texas Gulf Coast Council of the National Management Association is hosting a 10-hour money management seminar from 6-9 p.m. Feb. 14, 21, and 28. Cost is \$50 per couple for NMA members and \$75 for non-members. For information call Richard Hergert 280-0444.

### Feb. 15

**AIAA seminar:** The American

Institute of Aeronautics and Astronautics will host a two part seminar on the Internet at 6:45 p.m. Feb. 15 at the LPI Lecture hall. For additional information call Naz Bedrossian at 333-2127.

### Feb. 27

**Quality Conference:** The Third Annual Conference on Quality in the Space Industry will be held from 8:00 a.m. - 6:00 p.m. Feb. 27 at South Shore Harbour Resort. For registration and information call Glen VanZandt at x33069.

### March 8

**PSI meet:** The Clear Lake/NASA Area Chapter of Professional Secretaries International meets at 5:30 p.m. March 8 at the Holiday Inn on NASA Road 1. Dr. Gloria Goldstein presents "Living in the NOW; No More Procrastination." For more information, contact Elaine Kemp x30556.

### March 30

**AIAA workshop:** The American Institute of Aeronautics and Astronautics will host a real time workshop on MATLAB from 9 a.m. - 4 p.m. March 30 at the LPI Lecture hall. For more information call Naz Bedrossian at 333-2127.

### April 12

**PSI meet:** The Clear Lake/NASA Area Chapter of Professional Secretaries International meets at 5:30 p.m. April 12 at the Holiday Inn on NASA Road 1. For additional information, contact Elaine Kemp x30556

### May 10

**PSI meet:** The Clear Lake/NASA Area Chapter of Professional Secretaries International meets at 5:30 p.m. May 10 at the Holiday Inn on NASA Road 1. For more information, contact Elaine Kemp x30556.

## Swap Shop

### Property

Sale: Santa Fe/Alta Loma, Ave E, 2.5 acres, mineral rights, front 220' x 495' depth, \$20k. 337-1311.

Sale/Rent: Egret Bay waterfront condo, 1-1, FPL, fans, W/D, dishwasher, microwave, cov parking, dock, pool, entry gate, \$530 + dep. Karl, x33031 or 334-1164.

Sale: San Leon, 14x80, 3-2, lg kitchen, W/D conn, gas stove, dishwasher, park location, \$13.3k/cash only. x38138 or 554-2156.

Lease: Nassau Bay condo, 2-2.5-2CP, refrigerator, W/D hook-ups, avail 2/1/95, \$700/mo + deposit. 480-5090.

Sale/Lease: LC Countryside, 3-2-2, covered porch & fenced yard, CCISD schools, \$825/mo. 338-2332.

Rent: Arkansas cottage, Blue Mt Lake, furn, 4 acres, sleeps 6-8, \$250/wk, \$50/dly. Corcoran, x33005 or 334-7531.

Rent: Condo, 2-story, 2-2.5, enclosed patio, \$600/mo + \$600 deposit. 480-9431 or 532-1224.

Sale: Sterling Knoll, 3.5-2-2, landscaped backyard, in-ground pool, open floor plan, \$82.9k/obo. 486-4837.

Sale: 45 acres, middle of E. Texas, 2/3 open land all fenced, live spring, all util, 1/4 mi private road, deer, wild turkey, & wild hogs, 10 mi N Palestine, TX, \$1,750/acre. J. Guerrero, 903-729-8458.

Sale: Camino South, 3-2-2, cul-de-sac, sec sys FPL, fans, \$77k. x36463 or 554-6104.

Sale: Point Blank, TX, 1.9 acres, 7 min from Lake Livingston. 326-2307.

Sale: Dickinson, Oak Hollow, 4-2-3, 2700+ sq ft, 125' x 200', trees, \$165k. Ernie, 534-3885.

Lease: Executive home on water, CL Shores, 3-2, 2000 sq ft, 37' bulkheading, FPL, \$2.5k/mo. 334-6389.

Lease: Meadowgreen, 4-2-2, 2 living areas, sec system, new paint, no smokers/pets, avail 3/1/95, \$950/mo + dep. x35322 or 280-9745.

Rent: Taos, NM, house, close to town, ski valley. 486-5679.

Rent: Winter Park, Co, condo, 2-2, furn, sleeps 6, spring break available. 488-4453.

Lease: El Dorado Trace, 2-2.5, 2-story, FPL, tennis, exercise rm, W/D, sauna/hot tub, \$675. x34696 or 486-3980.

Sale: San Leon, '85 Remington mobile home, 14 x 80, 3-2, lg kitchen, W/D conn, gas stove, dishwasher, park location, \$13.3k cash only. x38138 or 554-2156.

### Cars & Trucks

'85 Subaru wagon, 5-spd, air, \$800. x40250 or 409-925-7839.

'90 Pontiac Firebird, black, ex cond, runs great, \$6,250 nego. Patrick, 488-3198.

'87 Ford Escort wagon, A/C, 4 spd, 108k mi, reliable transportation, \$1.1k. 286-8060.

'73 Chrysler New Yorker Brougham, loaded, new paint/tires, no rust/dings or cracked

glass, runs great, \$1,850. 488-8105.

'91 Peugeot 405S, ex cond, 72k mi, \$5.5k/obo. 554-4799.

'64 Mustang, 289, red, looks & runs good, \$3.5k. 486-0972.

'85 Porsche 944, black, 5 spd, sunroof, A/C, AM/FM/cass, ex cond, \$5.5k/obo. x35180 or 326-3706.

'80 Honda Civic, 2 dr, hatchback, white, 150k mi, new tires/brakes/exhaust system, reliable, \$1k/obo. x39011 or 474-2857.

'85 Chevy Cavalier station wagon, auto trans, 91k mi, good cond, \$1,350. 479-2979.

'87 Honda Accord LX, 4 dr, auto, PW, tilt, locks, rust proofing, cruise, tape, \$4,850. 488-7771.

'77 Dodge full sz PU, good work truck, \$800. 946-4034.

'77 Olds Cutlass Supreme Brougham, loaded, ex mechanical, new radials, \$950. 488-8105.

'72 Toyota Corona Mark II, 4 dr, auto, horn & inspection needed, runs good, engine overhauled 7/93, \$900 firm. 471-4843.

'88 GMC custom van, loaded, 68k mi, good cond, \$9k. x38450 or 481-6928.

'93 Mazda MX3, 2 dr, auto, A/C, cassette, alarm, 7 yrs/75k ext warr, 19k mi, \$11.5/obo. Vimal Duggal, 282-2520 or 484-6680.

'77 Pontiac Bonneville, good cond, 110k mi, \$1k/obo. 332-5286.

'86 Nissan Sentra, 5 spd, A/C, 2 dr, light blue, 95k mi, \$1.8k/obo. Ian, x34853.

'87 Ford Ranger XLT, ext cab, 5 spd, A/C, stereo, new tires/brakes, 110k mi, \$3.7k. x31662 or 474-7785.

'90 Ford Ranger XLT, ext cab, 5 spd, silver camper shell, ex cond, A/C, stereo, 62k mi, \$7/obo. x34038 or 554-2474.

'87 Chevy Nova, auto, new tire/timing belt/batt, ex cond, \$2,650. Ian, x34853.

### Cycles

'84 Yamaha RZ350, very fast, \$800. Mark, x35211 or 561-7768.

'93 Harley FLT Tour Glide, 40k mi, ex cond, \$8k/obo. x38784 or 482-0139.

Girl's 20" bicycle, \$15; boy's 15" bicycle, \$10. 482-7546.

Bridgestone road bike, 58 cm, new tires, all Shimano components, \$300/obo. 332-1854.

### Boats & Planes

Sovereign, 24', ex cond, extra jib, depth sounder, head, stove, sleeps 4, electric Johnson OB, recent bottom job, \$7.5/obo. Mike, 282-2787 or 532-1240.

'69 Sportcraft 14' boat w/trlr, 55 hp Johnson O/B motor, runs good, \$975. Sam, 332-3168.

Hobie Cat, 18' sail boat w/trlr, \$1.5k/obo. 474-4742.

'90 Welcraft 197 Eclipse, 4.3 Mercruiser, cuddly cabin, blue, dry docked, low hours, AM/FM/cass, full canvas/Bimini, ski gear & shoreline trlr, under warr, \$11.8k. 334-5519.

Monark 14' aluminum Jon/Bass boat, 15 hp Evinrude & trlr, decked/carpeted, bass seats, depth finder, trolling motor & livewell, ex cond, \$1.5k. Randy, x36365 or 992-0223.

### Audiovisual & Computers

Sony car Discman w/car kit & wireless remote, \$200/obo. Thanh, x31464.

IBM compatible, 386, 8MB RAM, 2 FDs, 3.5 & 5.25; 65MB HD, Windows 3.1 & various S/W, \$900. Earl Rubenstein, 480-1998.

Infinity SM120 200W 3-way speakers, \$475/pr/obo. Chris, 280-4394 or 474-7263.

TRS-80 model 4 computer & TRS 80 Daisy Wheel printer II w/cover, \$100. Sam, 337-3683.

Commodore 128 computer, color monitor, Star XG10 printer, GEOS Graphical OS, mouse, S/W, \$400. John Erickson, x44342 or 488-1901.

Stereo Heathkit AR1515, 2-Nova 8 speakers; Realistic turntable & tape deck, \$50/all; 2 B/W portable TV's, \$50/ea. Richard, 538-1854.

Tektronix 4105 graphics terminal & 4695 color printer, \$65/both. 328-3840.

Commodore C64 computer, 1541 disk drive, Commodore color monitor, Star 9 pin printer, joy stick, S/W, \$200/obo. 481-8839.

Hard drive, 106 MB IDE 15ms access time, \$75/obo; Quarantine CD, \$20; Outpost CD for Windows, \$20. x33187 or 488-5162.

### Photography

Autofocus slide projector & screen, \$50/both. Richard, 538-1854.

Canon AE-1 program w/35-70 lens, 70-210 lens 7 flash, \$325. Mark Johnson, x35211 or 561-7768.

### Musical Instruments

Schaff Bros, upright piano, plays well, good cond, \$350/obo. Glenn, x38067 or 480-7019.

Yamaha Pacifica 721 electric guitar, new, with case & some music. 482-2369.

### Pets & Livestock

Free bunnies. x38138 or 554-2156.

### Household

Antique pie keeper, \$300; secretary, \$300; beautiful vanity, \$350; Chinese silk rug, \$300; bookcase, \$250. x38784 or 482-0139.

Twin mattress set, \$25; qn boxspring, \$12; 6 drawer dresser, \$30; teachers school desk, \$35. 471-4843.

Kenmore gas oven/stove, ex cond, \$125. x35785 or 212-1358.

Dining room/breakfast table w/4 chairs & 2 leaves, \$200. 286-0022.

Kg sz mattress/boxsprings, frame/mattress cover, \$500; kg sz floral comforter w/matching insulated drapes (2), dust ruffle, sheets, pillow cases, \$60; kg sz country comforter w/matching ruffle/curtains, \$30; kg

sz yellow comforter w/dust ruffle, \$40; 7 sets of kg sz sheets & pillowcases, \$10/ea; 70" round country check woven tablecloth, \$10. x45752 or 326-5647.

Qn sz oak all unit bed, incl mirrors, light bar, cabinets, shelves & mattress, \$850. 488-8460.

Tweed L-sect sleeper/sofa, good cond, \$170/obo; Sears Communi I electric typewriter, good cond, \$60; pole flower stand, \$5. Allen, x47584 or 486-5740.

Sofa/loveseat w/table, \$225; full/qn sz bed frame, dresser/mirrors, and nightstand, \$465; solid oak rocking chair, \$95. Kim, 996-0152.

Twin bed, \$25; credenza, \$25; end table, \$25; stand up bar, \$25/obo. Brian, 480-5430.

Dishwasher, almond color, it works, \$30. 554-2233.

Queen Anne mahogany, 2 lamp tables, 1 oval coffee table, ex cond, \$150/all. x49694 or 337-2103.

Sofa/sleeper, \$50/obo. Glenn, x38067 or 480-7019.

G.E. large capacity washer, multi-cycle dryer, ex cond, \$375/both. 286-9727.

RCA 25" color console TV, works good, \$125. Sam, 332-3168.

Qn sz mattress/boxspring/frame, Sealy Posturepedic plush, \$400. x39357 or 486-5203.

### Wanted

Want non-smoking housemate to share 4-2.5 home in Kemah, \$300/mo + 1/2 util + deposit. Jeri, 333-7552.

Want personnel to join VPSI vanpool, West Loop Park & Ride lot at 6:50 p.m. to NASA/contractors. Richard Heetderks, x37557 or Ed Rangel, x36124.

Want personnel to join VPSI Vanpool departing Meyerland Park & Ride lot at 7:05 a.m. for JSC, vanpool for on-site workers, 8 a.m.4:30 p.m. shift, currently have 15 members, looking for 2 - 3 more. Travis Moebes, x45765 or Don Pipkins, x35346.

Want low priced school/work car or truck. 271-7011.

Want jogging stroller, x34716.

Want used Mandolin, inexpensive. Tom, x36309 or 474-9747.

Want roommate, 4 BR, 2 story modern house in Seabrook, 12 min from NASA, separate living area w/loft, \$375. 474-4742.

Want roommate, non-smoker to share 4-2, Friendswood, cable, W/D, microwave, VCR, gas grill, FPL, all household privileges, 20 min to NASA, \$250/mo, all bills pd. Michael, x38169 or 482-8496.

Want clean, safe, garage apt or private living area near Red Bluff or Seabrook, excellent references. 990-5543.

### Miscellaneous

Wedding ring set, 3/4 carat total weight, 14k gold, \$450. 280-8383.

'90 Upper Deck, \$50; '89 Upper Deck, \$125; '87 Topps, \$36; '86 Topps, \$40; '85 Topps, \$80; '80 Topps, \$275; desk, \$20; 9 '09-'11 Tobacco baseball cards, \$100; sparkling water/juice carbonation unit, \$20/obo. Tony, x47401 or 482-4156.

Bearcrafter windsurfing racks, \$75; Joelle designer wedding dress w/veil, sz 6-8, \$800; bridal slip, sz 6, \$10; amethyst bridesmaids dress, sz 4-6, \$60; juicer, \$20; wedding cake top, \$15. Su, x45722.

Rollerblade Lightning's, sz 9, knee pads & wrist guards, \$125. Phil, 333-6372 or 480-9105.

Bentwood rocker, \$10; antique rocker, \$20; country rocker, \$10; red naugahyde & walnut chair + ottoman, \$35; dresser, \$35; fireplace tools, \$7; Panasonic stereo, \$50. x45752 or 326-5647.

# Space Act Awards

## JSC employees earn recognition for inventions, technical contributions



JSC Photos by Jack Jacob

The first group of NASA Space Act Awards was presented Jan. 23.

It took two sessions in Bldg. 1's Ninth Floor conference room to recognize all the NASA Space Act Award recipients from JSC last month.

The 78 awards—which included Tech Brief Awards, Patent Application Awards, Invention and Contribution Board Awards, COSMIC Software Application Awards and Software of the Year Awards—were presented Jan. 23-24 by JSC Director Dr. Carolyn L. Huntoon.

Especially notable among the long list of accomplishments was an honorable mention for the Software of the Year Award, which went to the team that developed the C Language Integrated Production System, or CLIPS.

The CLIPS team was one of three runners-up in the first NASA Software of the Year competition, and JSC had two other finalist teams that developed a Network Execution and Training Simulator and a Fatigue Crack Growth Computer Program.

The objectives of the Space Act Monetary Awards Program are to provide official recognition and equitable monetary awards for those inventions and other scientific and technical contributions that have helped to achieve NASA's aeronautical and space goals in the past, and to stimulate and encourage the creation and reporting of similar contributions in the future.

### Software of the Year Award

C Language Integrated Production System, honorable mention: Gary D. Riley, Brian L. Donnell, Robert T. Savely, Christopher J. Culbert, Huyen-Anh V. Ly and Christopher J. Ortiz.

Network Execution and Training Simulator, finalist: Todd A. Phillips, Robert O. Shelton and Paul T. Baffes.

Fatigue Crack Growth Computer Program, finalist: Royce G. Forman, James C. Newman and Raymond M. Patin.

### Cosmic Software Application Awards

Splicer, UNIX Version: Lui Wang.  
Task Analysis Rule Generation Tool: Robert T. Savely and Christopher J. Ortiz.

Windows 3.1 Compatible Printer Drivers for the Shuttle PGSC: Brett T. Parrish.

Failure Environment Analysis Tool X-Version: Ginger L. Pack.

Minimum Euclidean Distance Optimal Filter: Shane Barton, Richard D. Juday and Jennifer L. Alvarez.

Solid Surface Modeler: Sharon P. Goza and Michael Goza.

Object Orientation Manipulator: Sharon P. Goza and Michael Goza.

C Language Integrated Production System, Macintosh: Gary D. Riley, Brian L. Donnell, Huyen-Anh V. Ly and Christopher J. Ortiz.

C Language Integrated Production System, DOS: Gary D. Riley, Brian L. Donnell, Huyen-Anh V. Ly and Christopher J. Ortiz.

C Language Integrated Production System, UNIX: Gary D. Riley, Brian L. Donnell, Huyen-Anh V. Ly and Christopher J. Ortiz.

C Language Integrated Production System, VAX: Gary D. Riley, Brian L. Donnell, Huyen-Anh V. Ly and Christopher J. Ortiz.

Configurable Real-Time Analysis System Software Program: R. Kevin McCluney.

Composite Plate Buckling Analysis Program, UNIX: James P. Smith.

Composite Plate Buckling Analysis Program, PC: James P. Smith.

### Tech Brief Awards

Neural Network Based Navigation Tool: Michael W. Lin, Jeffrey D. Bye and Naveed Quraishi.

Means to Provide Enhanced Protection From High-Density Orbital Debris Particles: Eric L. Christiansen and Justin H. Kerr.

Spatially Variant Fiber Optic Image Magnification: Richard D. Juday.

Multi-Phase Spherical Shell Processing: Dennis R. Morrison.

Multi-Lamellar, Immiscible-Phase Microencapsulation of Drugs: Dennis R. Morrison.

Mechanical Break-Away Clutch: Jeffrey K. Hostetler.

Laser Hand Scan for Enhanced Glove Fabrication: Joseph J. Kosmo Jr.

Finger Motion Sensing Using Conductive Elastomers: Larry C. Li, Todd A. Pesek and Frederic S. Dawn (retired).

Slow-Release Fertilization by Mineral Dissolution and Ion Exchange, A Complete Nutrient Substrate for Plant Growth: Douglas W. Ming, Donald L. Henninger and Earl Allen (retired).

Full Complex Spatial Light Modulation: Richard D. Juday.

A High IQ Heating-Venting-AC System: James A. Villarreal.

Quick, No-Slip Connection for Torque Transmission: Millard F. Reschke.

Shuttle Communications Interface Board: Brett T. Parrish.

A Microfermentation Test for the Rapid Identification of Yeast: Duane L. Pierson.

Portable Immune Assessment System: Duane L. Pierson.

Space Suit Electronic Checklist: Jose A. Marmolejo and Richard K. Fullerton.

Vibration Fixture(s) with Internal Thermal Transfer Capabilities: Richard J. Dean.

Microporous Structure with Layered Interstitial Surface Treatment, and Method and Apparatus for Preparation Thereof: Steven L. Koontz.

Redundant Bearing Assembly: Jay M. Wright.

Orbiter AFT Fusealage Gas Sampling System (OAFSS) Sample Extraction Valve: Richard J. Dean and Scott C. Hacker.

KU-Band Communications Adapter: Steve Schadelbauer.

Dive and Smoke Mask Display: Kevin-Duron Moore.

Bending and Torsion Load Alleviator with Automatic Reset: Horacio M. de la Fuente, Anthony X. Dao and Michael C. Eubanks.

A Process for Three-Dimensional Culture of Mammalian Cartilage: Glenn F. Spaulding.

A Process for Developing High-Fidelity Three-Dimensional Tumor Models of Human Bladder Carcinoma: Glenn F. Spaulding.

Horizontal Rotating-Wall Vessel Propagation in IN VITRO Human Tissue: Glenn F. Spaulding.

Patterned Sensors for Human Low Vision: Richard D. Juday.

Finger Measurement Tool: Suy Q. Le.

The Application of Contoured Pressure Distributions to Complex Geometric Surfaces: Edgar O. Castro and Michael C. Eubanks.

Method of Making Metal or Metal-Alloy Oxide Powders: Joel M. Stoltzfus.

Electromagnetic Probe Technique for Fluid Flow Measurements: George D. Arndt.

A Process for Complex 3-Dimensional Coculture of Normal Human Small Intestine: David A. Wolf and Glenn F. Spaulding.

Space Station Paraffin-Actuated Remote Connector: Erik E. Evenson and Christian A. Programmable Operating-Curve Selector for Liquid-Crystal Spatial Light Modulators: Richard D. Juday.

Easy-To-Operate Quick Release Pin:

MG/Robert C. Trevino.

Hydrophobic Porous Plastic Battery Box: Bobby J. Bragg.

Asynchronous "Safe" Latch: Paul A. Kemp.

Wet/Dry Vacuum Cleaner: Harold W. Reimers.

Launch/Entry Comfort Pad for Application in Astronaut Space Helmets: Sharon Jean Alexander and Frederic S. Dawn (retired).

Autonomous Regenerative Microbial Check Valve: Richard L. Sauer.

In Situ Superiodinator for Microbial Decontamination: Richard L. Sauer.

Bacterial Microcoupon Adhesion Assay: Duane L. Pierson.

### Patent Application Awards

Method and Apparatus for the Collection, Storage, and Real Time Analysis of Blood and Other Bodily Fluids: Peggy A. Whitson.

High Density Cell Culture System: Glenn F. Spaulding.

Heavy-Lift Vehicle-Launched Space Station Method and Apparatus: Horacio M. de la Fuente, Steven L. Rickman, Edgar O. Castro, Kornel Nagy, Timothy E. Pelischek, John A. Schliesing, Clarence J. Wesselski (retired), Donald C. Wade (retired) and Reginald B. Berka (retired).

Rotary Blood Pump: James W. Akkerman, Gregory S. Aber and Richard J. Bozeman, Jr. (retired).

Cultured High-Fidelity Three-Dimensional Human Urogenital Track-Carcinomas and Process: Glenn F. Spaulding.

Landing Gear Energy Absorption System: Christopher P. Hansen/  
Multi-Cellular, Three-Dimensional Living Mammalian Tissue (As Amended): David A. Wolf.

Smart Accelerometer (2 awards): Richard J. Bozeman, Jr. (retired).

### Board Awards

NASA Device Independent Graphics Library: Joseph E. Rogers and Robert T. Anderson.

Attachment Device: Ronald J. Zaguli.  
Method for Enhancing the Protection Capability of a Simple Aluminum Meteoroid/Orbital Debris Shield ("Stuffed Whipple"): Jeanne L. Crews and Eric L. Christiansen.

Meteoroid/Debris Shielding Design Strategies to Reduce Weight: Jeanne L. Crews and Eric L. Christiansen.

Dual Diaphragm Tank With Telltale Drain: Wallace C. Tuthill.

High Velocity Gas Particulate Sampling System: Wallace C. Tuthill.

Geometrical Vapor Blocker for Parallel Condensation Tubes Requiring Cooling: Eugene K. Ungar, John D. Cornwell and William D. Harwell.

Electromagnetic Attachment Mechanism: Leo G. Monford Jr.

A Method for Making Biocompatible Polymer Articles Using Atomic Oxygen: Steven L. Koontz and Glenn F. Spaulding.

Blood Rotary Pump: James W. Akkerman, Gregory S. Aber and Richard J. Bozeman Jr. (retired).

Full Complex Modulation Using Two One-Parameter Spatial Light Modulators: Richard D. Juday. □



The second group of NASA Space Act Awards was presented Jan. 24.

## Allen to lead tethered satellite mission in '96

By Kyle Herring

Astronaut Andy Allen will command the Space Shuttle *Columbia's* STS-75 mission in early 1996—the second flight of the Tethered Satellite System. This flight also is the third devoted to orbital investigations using the United States Microgravity Payload.

The Marine Corps lieutenant colonel will be joined by Air Force Maj. Scott Horowitz, pilot; Franklin Chang-Díaz, Ph.D., payload commander; Jeff Hoffman, Ph.D., Claude Nicollier and Maurizio Cheli, mission specialists; and Umberto Guidoni, Ph.D., Italian Space Agency payload specialist.

Chang-Díaz and Guidoni were named to the crew last year. Four of the crew members flew on the first TSS mission in 1992 when the satellite was deployed about 900 feet.

The TSS project is a joint NASA/ASI effort managed by the Marshall Space Flight Center. On STS-75, the five-foot diameter Italian-built satellite is scheduled to be deployed on the end of a 13-mile long conductive tether to study the electrodynamic effects of moving such a tether through the Earth's

magnetic field. The flight also will test techniques for managing the tethered spacecraft at great distances.

USMP is designed to provide the foundation for advanced scientific investigations similar to those planned aboard the international Space Station.

Allen, 39, flew on STS-46 and on STS-62 in March 1994.

Horowitz, 37, is a member of the

astronaut class of 1992 and will be making his first shuttle flight.

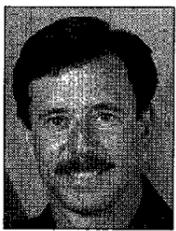
Hoffman, 50, and Chang-Díaz, 44, will be making their fifth shuttle flights. Chang-Díaz, was a mission specialist on STS-61C in January 1986, STS-34 in October 1989, STS-46 and STS-60 in February 1994. Hoffman, flew on STS-51D in April 1985, STS-35 in December 1990, STS-46 and STS-61 in December 1993.

Nicollier, 50, has flown twice on the shuttle—STS-46 and STS-61 in December 1993. Cheli, 35, is a member of the astronaut class of 1992 and will be making his first shuttle flight.

Guidoni, 40, was alternate payload specialist on the first TSS flight and is a co-investigator on the Research on Electrodynamic Tether Effects experiment. This will be his first shuttle flight.



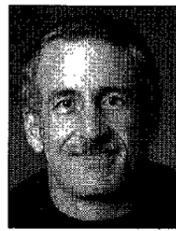
Allen



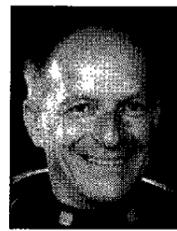
Horowitz



Chang-Díaz



Hoffman



Nicollier



Cheli



Guidoni

## Two scholarship program deadlines coming in March

Scholarship applications for both the NASA Exchange-JSC Scholarship Program and the NASA College Scholarship Fund are due March 31.

The Exchange Council expects to award two scholarships to students on the basis of academic achievement, financial need and involvement in school or community activities. The scholarship program is open to students currently enrolled and in good academic standing in college, or who will graduate from a public, parochial or private high school this year and who are dependents of eligible JSC employees.

Scholarship support of up to \$4,000 will be provided in the amount of \$400 per academic semester, \$250 per academic quarter and \$200 per summer session, or as the Exchange Council determines. In any event, the amount will not exceed \$1,000 in any one year.

Application forms and agreements for the scholarship are available in Bldg. 1, Rm. 457. Please contact Judy Ernulf, x31812, for the forms, or Debra Johnson, x34157, for additional information.

College students must furnish their most recent transcript of college grades with the application, as well as a transcript of high school grades and either SAT or ACT scores.

To be considered for this year's program, completed forms must be returned no later than March 31, in a sealed envelope to: D.L. Johnson, chairman, JSC Scholarship Committee Mail Code B1.

Application forms and the students' scholastic records will be evaluated by the JSC Scholarship Committee. All applicants will be notified by mail of the results by approximately May 15.

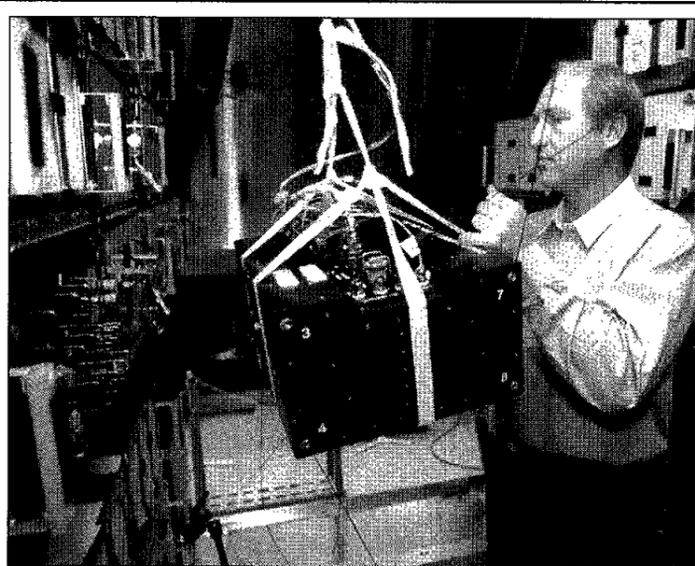
Separate applications for the NASA College Scholarship Fund also are due by March 31.

This fund will be awarding five scholarships of \$2,000 each. The scholarship is renewable for six years, not to exceed \$8,000. Applicants must be pursuing a course of study that will lead to an undergraduate degree in science or engineering at an accredited college or university in the United States.

Applicants must be dependents of current or retired NASA employees or dependents of former NASA employees who died while employed by NASA. Applicants must be graduated from an accredited public, private, or parochial high school or be currently enrolled in college with good academic standing. An applicant must have a combined high school grade and college (if any) grade point average of 2.5 on a 4.0 scale or the equivalent.

After meeting the minimum requirements, applicants will be ranked based on academic preparation, school activities, community activities, performance on SAT or ACT, written recommendations and a one-page statement of purpose.

Applications are available in Bldg. 1, Rm. 840. Completed forms may be mailed to JSC, the NASA College Scholarship Fund, Inc.; Mail Code AH12/ Scholarship Committee; Houston, 77058. For more information, contact Mary O'Connell, at x39168.



Perry Cambell, co-developer of the CHARLOTTE robot, demonstrates how it will perform simple tasks such as servicing experiments and video observations.

## Charlotte weaves web at Space Center Houston

By Barbara Tomaro

Like the tiny spider of the same name, Charlotte Pitts is spinning a small web of mystery that has captured the interest of her fellow workers at Space Center Houston.

The long-time space enthusiast and visitor center employee has reason to celebrate the launch of STS-63. That's when CHARLOTTE ventured into space.

In 22 years as a first-grade school teacher, Pitts shared her enthusiasm for the space program with her students. She tried to convey to them at an early age the importance of space exploration on their futures and its benefits to all humans.

During those years, her enthusiasm never diminished. She eventually decided, however, that she needed a change. So, when Space Center Houston began accepting applications for employment, this "crew member" knew it was for her.

Since before it opened in 1992, Pitts has held the position of hostess for inside attractions. She began her training in a hard hat as the facility was still under construction. In her position, she can once again enjoy "sharing the

space program" with an audience.

Then, one day last fall, a co-worker brought her a news release about a new robot that would be going into space. The robot's name, CHARLOTTE. Since that time, Pitts has delighted in telling everyone who will listen, that she will be in space.

CHARLOTTE will be used in the Spacehab module while the crew is unavailable: during sleep periods and space walks, at times when the Spacehab module is sealed from the shuttle orbiter, or while the crew is busy with other activities. The system allows scientists to observe or interact with their experiments without placing greater demands on the crew.

Objectives include demonstrating CHARLOTTE's deployment and initialization, effectiveness in performing a series of prescribed experiment support tasks; ground operator commanding; module surveillance, and disassembly and stowage of the system prior to the return to Earth.

CHARLOTTE, the robot, is sponsored by NASA's Commercial Middeck Augmentation Module Project and McDonnell Douglas Aerospace.

## New flight directors begin debut on STS-63

By James Hartsfield

During the next two flights, three new flight directors will have work their debut shifts at the central console in the Mission Control Center.

Selected in November 1993, John Shannon, Paul Dye and Bryan Austin have now completed a year of intensive training and have been certified to man the flight director's console.

Dye, 36, a Bemidji, Minn., native, will lead the planning shift of flight controllers during STS-63. Dye has worked in a variety of capacities as a flight controller in MCC since joining NASA as a Co-operative Education student in 1980. Those positions included work as a systems flight controller for the Spacelab Command and Data

Management System; a senior flight controller for the Spacelab CDMS and Instrument Pointing System; and a senior Mechanical, Maintenance, Arm and Crew Systems flight controller. From 1990-1993, he served as head of the Mechanical and Crew Systems

Section.

Shannon, 29, a Houston native, will lead a shift on STS-67 in March. Since joining NASA in 1988, Shannon has served as a Guidance, Navigation and Control flight controller, and, since from 1992-1993, as head of the Guidance, Navigation and Control Systems Section.

Austin, 36, a Corpus Christi native, also will lead a shift on STS-67. Austin joined NASA in 1982, and, until 1987, served as an instructor in the Data Processing Systems/Navigation Section of the Training

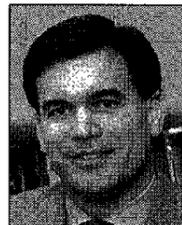
Division. From 1987-1989, he served as the Shuttle Mission Simulator team lead for the DPS/Navigation Section of the Training Division, and, from 1989-1993, Austin worked as a simulation supervisor in the Systems Training Branch. He served as the lead simulation supervisor for six shuttle missions, including the Tethered Satellite System flight on STS-46 and the HST repair flight on STS-61.



Shannon



Dye



Austin

## Cafeterias offer 'Rodeo Fill-Up Breakfast'

JSC employees can lasso and hog-tie a hearty breakfast for under three bucks this month in honor of the Houston Livestock Show and Rodeo.

Both cafeterias will have a "Rodeo Fill-Up Breakfast" for \$2.50. This breakfast will include two eggs, any style; two slices of bacon; two pork

links; two hot cakes (with butter and syrup); and coffee with refills. The cafeterias open at 7 a.m., and breakfast is served until 10 a.m.

Beginning Wednesday, the Bldg. 3 Cafeteria will open a salad bar where employees may build their own for \$2.40 a pound.

## Security hosts nationwide workshop

The JSC Security Branch and the American Society for Industrial Security will host a week-long Physical Security Workshop here beginning Monday for security and law enforcement personnel from around the country.

JSC will host 90 security directors, managers and supervisors to pro-

mote fraternal partnership and the information exchange. They'll visit Bldgs. 5, 9, 29, and 32 and participate in a physical security survey of selected facilities.

ASIS is an International professional society made up of law enforcement and security personnel throughout the world.



25 YEARS PLUS—Dr. Carolyn Huntoon recently honored several employees with Length of Service awards. Recipients with years of service include Juanie Campbell, 30; Al Ligrani, 45; Judy Russell, 30; Karl Schaefer, 30; Robin Stewart, 25; Lee Lawson, 45; Charley Ober, 30; John Breitenbach, 25; Gary Kane, 35; Gary Robinson, 30; Charlie Seaman, 30; Tom Davies, 30; Alan Feiveson, 30; Vern Hammersley, 30; Bill Pruett, 30; Tom Ross, 30; Dave Homan, 25; Leroy Graham, 35; John Peck, 30; Marilyn Forbes, 25; Martha Speller, 30; Sue Hillborn, 25; John Petersen, 25; Chuck Pace, 35; Eddie Tarkington, 30; Anna Matthews, 25; Russell Morton, 30; Barbara Beasley, 35; Anne Brenton, 30; Lloyd Erickson, 30; Joel Kent, 30; Doris Roberts, 30; Steve Leathers, 25; Manny Avila, 30; Harvey Myers, 30; Bill Sheegog, 30; and Curtis Hyman, 25 years.

## Goldin says buyout plan responds to suggestions

(Continued from Page 1)

in Employee Services."

Goldin said NASA will work with its unions on all buyout specifics.

"I want you to know that this buyout is a direct result of your input," he said. "During my last talk, I asked you for your thoughts on how we could make down-sizing less disruptive. Many of you suggested a buyout, so that's exactly what we're doing," Goldin said.

"Down the road there may be other options we need to take," he cautioned. "Obviously, we don't know how many people will take advantage of the buyout. So we don't know if something more will be needed. If there is, we'll take further steps. Like every other agency, we have to meet our down-sizing targets.

"NASA values its employees. We're working to down-size in a way that makes sense for the agency and makes sense for our people. If you have more ideas, let your center directors and associate administrators know," he said.