

Space News Roundup

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No. 44



JSC Photo by Robert Markowitz

STS-66 Mission Specialist Jean-François Clervoy opens a bottle of champagne at Ellington Field welcome home ceremonies Monday night as representatives of the European Space Agency and the Houston French community look on.

Atlantis data coffers bulging

A record amount of data about the atmosphere gathered during STS-66 will help researchers assess the environmental health of the Earth.

Atlantis landed at 9:34 a.m. CST Monday, touching down at Edwards Air Force Base in California when Tropical Storm Gordon refused to allow a smooth descent through Florida skies.

Throughout the 11-day flight, the Atmospheric Laboratory for Applications and Science-3, the Shuttle Solar Backscatter Ultraviolet experiment, and the Cryogenic Infrared Spectrometers and Telescopes for the Atmosphere satellite constantly measured atmospheric gasses and

solar energy.

"We're trying to find out about ozone depletion, to understand about the chemical reactions, and how the atmosphere goes through the ozone depletion process and then recovers from it," said Payload Commander Ellen Ochoa. "Having the six ATLAS instruments, plus SSBUV and CRISTA all talking measurements supporting the same research, and doing it in different ways, gives us a very unique data set."

During its eight days of free-flying scientific observations, the CRISTA-SPAS satellite with its Middle Atmospheric High Resolution Spectrograph Investigation instrument,

gathered more than 100 gigabits of data. The German-built instruments measured the concentrations and distribution of trace gases in the atmosphere, collecting detailed information on the "weather" in the upper atmosphere.

According to Wolfgang Frings of the German Space Agency, CRISTA is the first instrument to provide information about the dynamics of winds, temperature changes and movements that distribute the gases that influence ozone chemistry.

"We were looking for cloud-like structures in ozone distribution, predicted by computer models, which

Please see **ATLAS-3**, Page 4

Little's accepts new job

Pearson resigns as NASA's head of space flight

Jeremiah W. Pearson announced his resignation Wednesday as the associate administrator for the Office of Space Flight.

Dr. Wayne Little's was named as the new associate administrator. Little's currently is the NASA chief engineer and former deputy director of Marshall Space Flight Center.

"These past two-and-one-half years at NASA have been tremendously rewarding for me," said Pearson, a retired Marine Corps major general. "We've made great strides in the human space flight program during that time. We have found new efficiencies in the space shuttle budget while maintaining our strong commitment to safety. We've brought Russia into the re-designed space station partnership. And we've set the stage for an exciting future in human space flight."

"I'm extremely proud of our accomplishments and gratified to have had the opportunity to lead this talented group of people at NASA. Now I'm looking forward to new challenges and opportunities," he added.

NASA Administrator Daniel S. Goldin accepted Pearson's resignation and praised his service. "Jed Pearson's contributions to the Office of Space Flight have been signifi-

cant," Goldin said. Numerous contributions to shuttle safety and performance have been made and we wish Gen. Pearson all the success in the future."

In announcing the appointment of Little's to the post of space flight associate Administrator, Goldin said, "Dr. Little's brings great experience and leadership to the Office of Space Flight and will continue to play a major role to ensure America's leadership in space, and

to help NASA build an exciting future on this new frontier."

The resignation of Pearson and the appointment of Little's are effective immediately; however, Pearson has agreed to remain at NASA Headquarters to provide for an orderly transition period.

Before joining NASA, Pearson was assistant deputy chief



Pearson

of staff for plans, policies and operations at Marine Corps Headquarters, and deputy commander of Marine forces, central command during Operation Desert Shield/Storm in Riyadh, Saudi Arabia. He has a bachelor's degree in aeronautical engineering from Georgia Institute of Technology and a master's in systems engineering from the University of Southern California.

JSC seeks volunteers to support student enrichment

By Karen Schmidt

JSC and the National Technical Association are working with several Houston area schools to promote scientific and technical education—and they need your help, too.

Several programs sponsored by NTA are seeking volunteers from JSC to enhance student awareness.

"All of these programs will enhance students' understanding of scientific and technical data thus continuing the future of space technology," said Carrington Stewart, coordinator of the effort.

The 3-T mentorship program is a national program with a focus on mentoring for teachers, students and parents. Mentors from various industry and government are assigned to a specific class and help the teacher with lectures or projects. The mentor is also asked to work one-on-one with students or parents to share experiences, help with continuing education objectives or career goals, Carrington said.

JSC mentors will focus on several schools in the Houston area. These include Clear Creek's Webster

Intermediate and McWhirter Elementary, Houston's, Whidby Elementary and North Forest's Northwood Middle School.

Volunteers also are needed to support JSC and the Gulf Coast Alliance for Minorities in Engineering in a link-up with Woodson Middle School. Volunteers will visit the school and give presentations on space and technical work at JSC. They also will be asked to assist kids on engineering field day, engineering career day, and in math/science competitions.

NTA will participate in the Houston Science Fair slated for March 1995. First through fourth place awards will be presented to students who participate in middle and high school categories. Volunteers are needed to evaluate and judge science projects, support the fair in logistics and participate in awards ceremony.

Students also will get a chance to participate in the National Association for the Advancement of Colored People Arts Crafts Technical and Scientific Olympics. Volunteers will provide technical and sci-

entific judges of student projects for this event which is to be held in April of 1995.

Students will continue to show off their science and technical projects in the Annual Student Technical Symposium to be held April 8. This symposium piggybacks on the Houston Science Fair and allows minority students additional opportunities to display and discuss their projects. Volunteers will sit one-on-one with students to evaluate the projects. Elementary and middle

Please see **VOLUNTEERS**, Page 4

NASA teams up to improve education

Signs pact with Department of Education, aerospace industry

Chief executive officers of the nation's 28 largest aerospace contractors have teamed up with NASA and the U.S. Department of Education in an ambitious plan to improve the nation's mathematics, science and technology education goals.

"American industry understands education is critical to our nation's future economic competitiveness," said NASA Administrator Daniel S. Goldin. "Nearly 30 CEOs of the nation's top companies today joined together to ensure students of today are the engineers, scientists and inventors who will keep American business at the top of the ladder tomorrow."

To help meet this goal, Goldin, DOE Deputy Secretary Madeleine Kunin and CEOs signed a collaborative agreement during a ceremony Tuesday at NASA Headquarters.

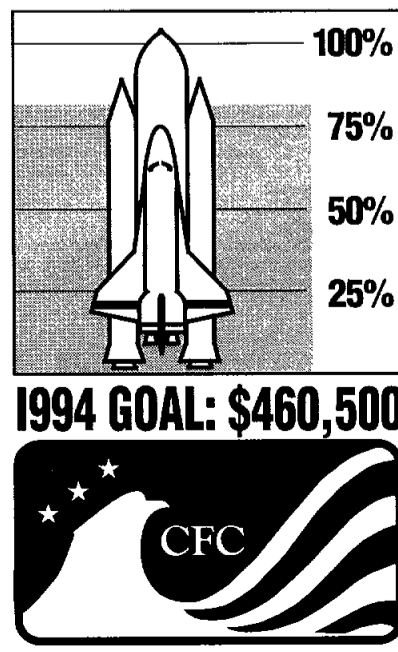
This agreement establishes a mission to work cooperatively to improve students' performance in science and mathematics, increase public scientific literacy, promote a strong teacher workforce, help prepare an adequate pipeline of scientific and technical professionals including underrepresented groups.

During the ceremony, Kunin applauded this joint initiative to support GOALS 2000 and the nation's education reform efforts.

Under the leadership of NASA,

the NASA-Industry Education Initiative originated as a voluntary cooperative effort to refine and align current and planned education activities to support the nation's education reform strategies and to accomplish the national education goals.

President Clinton signed Goals 2000: Educate America Act on March 31. The Act set in law the original six National Education Goals concerning school readiness, school completion, student academic achievement, leadership in mathematics and science, adult literacy, and safe and drug-free schools. The law added two new goals related to parental participation and professional development.



CFC campaign over halfway mark

The Combined Federal Campaign is closer to JSC's total goal this week. Contributions are now \$374,725, 81 percent of the total goal. Fifty-five percent of employees have contributed with 379 of those employees contributing one hour's pay per month. A total of 132 employees have contributed two or more hours to the campaign.

Lee Graham of the Space Station Safety and Mission Assurance Office in the Space Station Program Office won the free round trip Continental Airlines ticket to anywhere in the continental U.S. for week three.

Civil servants are encouraged to contribute to the campaign that serves hundreds of volunteer agencies and runs through today.

JSC

Ticket Window

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

Christmas Dinner/Dance: 7:30 p.m. Dec. 9 & 10 at the Gilruth Center, Cost is \$22.50 per person includes prime rib dinner.

Ballet: Clear Lake Metropolitan Ballet presents "The Nutcracker," 8 p.m. Dec. 9 & 10 and 2 p.m. Dec. 10 & 11 at the University of Houston Clear Lake. Cost is \$12.

Symphony: Clear Lake Symphony presents "Christmas Pops Gala" 8 p.m. Dec. 3 at the University of Houston Clear Lake. Cost is \$5.

Pecan Crop: Sweet Water Pecan Halves. \$5.50 per pound.

Chorus: Bay Area Chorus presents "Songs of the Season," 8 p.m. Dec. 1 at University of Houston, Clear Lake Bayou Theatre. Cost is \$5.

Dickens on the Strand: Dec. 3 & 4 in Galveston. Cost is \$6.30 per person.

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; commemorative, \$9.55.

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, \$5.80

Stocking Stuffers: Bldg. 11 store will have a variety of gift and stocking stuffers for Christmas shoppers.

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

Shuttle music: Space shuttle musical parodies. Cost is \$7.50.

Upcoming Events: Children's Christmas Party from 8 a.m.-noon, Dec. 17 at the Gilruth Center. Cost is \$4 child, \$1 adult.

JSC

Gilruth Center News

Sign up policy: All classes and athletic activities are first come, first served. Sign up in person at the Gilruth Center and show a 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. Dec. 14 and 29. Pre-registration is required. Cost is \$5.

Defensive driving: Course is offered from 8:15 a.m.-3 p.m. Saturday. Next class is Nov. 19. 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.

Volleyball & Basketball: Registration for winter volleyball and basketball begins Dec. 5. Volleyball registration schedule is Mixed C and Women's, 7 a.m. Dec. 6; and Men's and Mixed B, 7 a.m. Dec. 7. Basketball registration is Men's and Men's Over 30, 7 a.m. Dec. 8.

Tennis league: A fall tennis league may be started if there is sufficient interest. Contact the Gilruth Center at x33345.

Softball league: Registration for winter softball league will be held 7 a.m. Nov. 28. Play begins Dec. 12.

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.

Golf lessons: Lessons for all levels. Cost is \$90 for six weeks. For additional information, contact x33345.

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.

JSC

Swap Shop

Property

Sale: Jamaica Beach lot, 80' x 135', \$3.8k. x30228 or 333-5231.

Sale: Baywind II condo, 1-1, new carpet/fresh paint, W/D, fridge, DW, FPL. \$23k. 486-8047.

Lease: El Dorado Trace condo, 1 bdr, W/D, alarm, mini-blinds, icemaker, no pets, \$425/mo + dep. Mark, 488-0056.

Lease: Pipers Meadow, 3-2-2, lg living area, FPL, ceiling fan, mini blinds, newly painted, fenced yard, avail now, \$825/mo + dep. Walter, 332-1609.

Sale/Lease: Seabrook TH, 2-2.5-2A, approx 1660 sq ft, new roof, sunken LR, 2-sided WB/FPL, \$69k/750/mo + dep. 326-3737.

Sale/Lease: Secluded 2-1.5, townhouse in Dickinson, 2-story, \$40k w/some owner financing, \$450/mo. Corcoran, x33005 or 334-7531.

Sale: Taylor Lake Estates, residential lot 90' x 135' in wooded waterfront subdiv, \$42.5k/obo owner finance. Don, x38039 or 333-1751.

Sale/Lease/Trade: Near 290 & 1960, 3-2-2A, new roof, heatpump, fresh paint & carpet, \$65k. x31265 or 286-3161.

Sale: Camino South, 3-2-2A, pool, FPL, new carpet, reasonable. Mike, 480-0336.

Rent: Lake Placid mobile on Guadalupe river near New Braunfels & Seguin, waterfront for fishing, water skiing, sleeps 6, winter \$65/dly, \$350/wkly. 326-3706.

Sale: Cemetery lots at Rosewood Memorial Cemetery in Humble, TX, \$395/ea. 244-0250 or 941-3262.

Rent: Arkansas cottage overlooking Blue Mountain Lake, furnished, wooded, 4 acres, antiques, \$50/dly \$250/wkly. x33005 or 334-7531.

Rent: Winter Park, Colorado, condo, 2-2, fully furnished, sleeps 6. 488-4453.

Cars & Trucks

'92 Nissan Pathfinder XE-V6, red, loaded, hitch, looks & runs good, 51k mi, \$15.3k. 212-1294.

'88 LeBaron GTC, V4, pwr, deluxe leather pkg, cust stereo, convertible, ex cond, \$5.5k. 334-7238.

'90 LeBaron, V6, pwr windows, air bag, low miles, A/C, ex cond, \$5.5k. 334-7238.

'87 Pontiac Firebird convertible, completely resotred, red w/blk interior, \$13.8k. Mike, 333-2335.

'87 Mazda 626, gray/gray, alarm, new tires/brakes, & clutch, \$3.5k/obo. 326-6228 or 707-9219.

'88 Subaru, auto, low miles, ex cond, \$4k. Jeff, 326-6228.

'74 Triumph Spitfire, recent interior, paint, tires, w/ removable hard top, spare engine, \$1.5k. Craig, x36206 or 280-0176.

'79 Toyota Celica, 280-0828.

'84 Nissan Sentra, 2 dr, auto, A/C. 286-1734.

'82 Mustang, 5.0L GLX, one owner, new engine, T-tops, alarm, extras, \$2.2k/obo. 337-5410.

'89 Lincoln Towncar Signature series, leather, alarm, silver, \$8,750. Steve, x36725.

'85 Toyota Camry, auto, A/C, cassette, ex cond, orig owner, \$3.3k. 334-1072.

'92 Mazda Miata MX-5, red/blk, B-package, 24k mi, ex cond, \$16k. James, x31064 or 334-1766.

'92 Mitsubishi 3000GT, 5 spd, A/C, charcoal gray, 20k mi, \$18.5k. Mark, x47112.

'89 Toyota 4x4 PU, 5 spd, A/C, bedliner, fiberglass shell, navy blue, 67k mi, \$8k. Mark, x47112.

'85 Ford Tempo GL, runs well, A/C not working, new tires, \$1.5k. 334-1098.

'85 Porsche 944, black, 5 spd, sunroof, A/C, AM/FM/cass, ex cond, \$4,995. x35180 or 326-3706.

'85 Dodge Spirit LE, 2.5L turbo, auto, PS/PB/PL, A/C, 4 dr, tinted windows, \$5k. Fred, x30770 or 996-5179.

'92 Toyota Corolla, 4 dr, 5 spd, A/C, pwr steering,

AM/FM/cass, 35k mi, \$6.9k. Ray, x38876 or 338-1065.

'84 Chevy S10 Blazer Tahoe, V6, 4 spd, A/C, pwr steering, good cond, \$3.2k. 488-5092.

'84 Pontiac Fiero SE, 2.5L, 4 spd, A/C, new tires, 53k mi, \$3k. 488-5092.

'82 Toyota Celica, 2 dr, 5 spd, A/C, radio cassette, 115k mi, runs good, \$1,450. D. Ton, x33242 or 996-8630.

'87 Honda Accord LX, 4 dr sedan, ex cond, auto, AM/FM/cass, power locks/window/steering & brakes, \$2,790. Tien, 280-4014.

'86 Mustang GT w/moldings, \$4.5k. 280-0285.

'87 Mazda RX-7 Turbo II, alarm w/pager, AM/FM/CD/cass, \$9.5k. Jim, x35366 or 286-7374.

'86 Mazda RX7 GXL, leather, A/C, pwr, sunroof, ex cond, \$24k mi, \$5.2k. x36604 or 482-7156.

'86 Mustang parting out. Ron, 474-5259.

Cycles

'89 Honda Pacific Coast 800cc, ex cond, 2-helmets w/chatter box, \$3.5k firm. Carl, 244-9789.

Boys bicycle by Giant, "Frantic" model, ex cond, mini 20" size, new \$160 sold \$80. x46176 or 480-7860.

Ladies 24" Schwinn bicycle, 10-spd, Caliente model, red, \$50. x31446 or 474-2607.

'87 Kawasaki 600 Ninja RX, Limited Edition, ex cond, \$2.7k/obo. Eddy, x35710.

Suzuki TM 250, clean, \$450. 326-3737.

Audiovisual & Computers

486 SX Notebook, 130 MB HD, 4 MB RAM, carrying case, & Canon 200 Bubble Jet printer, \$995. Bob, 334-2760.

Nintendo Games, \$15/ea. 992-5535.

Commodore computer, keyboard, monitor, cassette drive, 2-1541.4.25 floppy drives, MPS 801 printer, software, \$150. Luther, 326-1946.

Sony 8 mm Camcorder, CCD-M84, w/8mm video player, both work, \$90/both; Radioshack shortwave radio, digital readout, DX-400, \$30; Sharp VCR, \$100. Lam, 280-9880.

Canon BJ-10e bubble jet printer, like new, \$100. Jim, x37486 or 286-3172.

Macintosh software, MS Word 5.0, \$200; MS Excel 4.0, \$245; Adobe Illustrator 3.2, \$150; Canvas, 3.0, \$175. Kim, 333-4222.

Peavey CS-800 power amplifier w/400 watts of pwr per channel & bi-amping capabilities, \$400. James, x33571 or 337-5583.

Photography

Minolta X-700 35mm camera w/motor drive & 50 mm F2 lens, \$150; Sigma 400 F5.6 & 135 mm F1.8 lenses, \$100/ea; all include Achiever flash & bag, \$300 firm. Dennis, 480-1185.

Musical Instruments

Baldwin organ, Interlude w/fun machine, bench 7 music books, \$600; piano, Henry Miller upright w/bench, good cond, \$500. 992-8764.

Bach Stradivarius model 37 silver trumpet, \$450. x30951.

Pets & Livestock

Free long-haired orange & white female cat, spayed & declawed, 3 yrs old, tolerates baths well, affectionate, lap cat, all shots, 283-9500 x 509 or 486-9605.

Small grey cat looking for responsible home, owner moving, male, neutered, declawed, great personality. Kim, 333-4222.

Free! 3 newborn Chow pups to a good home, couple of weeks old. x30602.

Free to a good home, 3 yr old white, longed hair

Today

Cafeteria menu: Special: meat sauce and spaghetti. Total Health: steamed salmon steak. 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.

Saturday

Trek salute: Star Trek-themed characters will meet and greet the public from noon-6 p.m. Nov. 12 at Space Center Houston. Mark Lenard, who portrays "Sarek," will appear at 3 p.m. For information call 244-2105.

Sunday

Trek salute: Star Trek-themed characters will meet and greet the public from noon-6 p.m. Nov. 13 at Space Center Houston. Mark Lenard, who portrays "Sarek," will appear at 1 p.m. For more information call 244-2105.

Monday

Health fair: The annual JSC Health Fair runs from 9 a.m.-4 p.m. Nov. 21 in the Gilruth Center ballroom. Employees may meet with health and retirement plan representatives. For more information, contact Employee Services, x32681.

Cafeteria menu: Special: turkey and dressing. Total Health: steamed salmon steak. Entrees: breaded cutlet, chicken fajitas, steamed pollock, beef cannelloni. Soup: beef barley. Vegetables: Brussels sprouts, mixed vegetables, egg plant casserole, winter blend vegetables.

Tuesday

Book signing: Apollo 13 Astronaut Jim Lovell will autograph copies of his book *Lost Moon: The Perilous Voyage of Apollo 13*, from 4:30-6:30 p.m. Nov. 22 at Jeremy's Bookshelf, 2441 Bay Area Blvd. For more information, call 486-8028.

Cafeteria menu: Special: pepper steak. Total Health: vegetable

lasagna Entrees: vegetable lasagna, pork chop and fried rice, turkey ala king, baked chicken, fried cod, French dip sandwich. Soup: black bean and rice. Vegetables: breaded squash, steamed spinach, baby carrots, navy beans.

Wednesday

Astronomy seminar: The JSC Astronomy Seminar meets at noon Nov. 23 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. Nov. 23 at House of Prayer Lutheran Church on Bay Area Blvd. For more information, contact Darrell Boyd, x36803.

Cafeteria menu: Special: Mexican dinner. Total Health: stuffed bell pepper with Creole sauce. Entrees: broccoli quiche, spare ribs and kraut, steamed pollock, Reuben sandwich. Soup: seafood gumbo. Vegetables: Spanish rice, pinto beans, green peas, broccoli.

Thursday

Thanksgiving Day: Most JSC offices will be closed in observance of the Thanksgiving Day Holiday.

Friday

IMAX movie: at Space Center Houston will feature screenings of *Houston in Space*, the latest IMAX offering, at 8 and 9 p.m. Tickets are \$5 adults, \$4 children 3-11 and senior citizens. For more information call 244-2105.

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

Saturday

Trek salute: Walter Koenig, who

portrayed "Chekov" in several "Star Trek" films will appear at 2 p.m. Nov. 26 at Space Center Houston. For more information call 244-2105.

Sunday

Trek salute: Walter Koenig, who portrayed "Chekov" in several "Star Trek" films will appear at 2 p.m. Nov. 27 at Space Center Houston. For more information call 244-2105.

Nov. 30

Astronomy seminar: The JSC Astronomy Seminar will meet at noon Nov. 30 in Bldg. 31, Rm. 129. Dr. Wendell Mendell will discuss International Space University 1994. For more information, call Al Jackson at 333-7679.

Virtual reality: The Fourth International Symposium on Measurement and Control in Robotics takes place from Nov. 30 through Dec. 3 at the Nassau Bay Hilton and Marina. To register or for more information, contact Mary Stewart, x31724.

Dec. 7

Astronomy seminar: The JSC Astronomy Seminar will meet at noon Dec. 7 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. Dec. 7 at House of Prayer Lutheran Church on Bay Area Blvd. For more information, contact Darrell Boyd, x36803.

Dec. 14

Astronomy seminar: The JSC Astronomy Seminar will meet at noon Dec. 14 in Bldg. 31, Rm. 129. An open discussion meeting is planned. For more information, call Al Jackson at 333-7679.

PSI meets: The Clear Lake/NASA Area chapter of Professional Secretaries International meets at 5:30 p.m. Dec. 14 at the Holiday Inn on NASA Road 1. For more information, contact Elaine Kemp, x30556.

female cat, loves adults, does not children. 332-7168. Basenji, red & white, AKC reg dog, 1 yr old, \$180. x46176 or 480-7860.

Household

Antique DR table, Italian w/inlaid wood/drop tbl extender, 2 mstr chair w/4 side chairs, \$950/obo; oak & mahogany coffee table, w/2 drws, sq \$200; 45 gal aquarium w/stand, \$195; sewing machine cabinet, \$50. Marie, 992-5535.

Sectional sofa, 4pcs, off-white, \$175, dinette table, chrome & glass, w/4 chairs, \$75; dbl-oven, \$50; stove top w/vent-a-hood, \$50; TV stand/cart, \$15; corner table, \$10. 332-4775.

King sz, motionless waterbed, complete w/hdbd & extras, ex cond, \$350/obo. Ron, 474-5259.

Upholstered sofa w/wheels 7 removable cushions, \$100/obo. 488-6051.

RCA 25" color TV, swivel base, good cond, \$75. 333-2335.

Solid maple bedframe, short poster dbl sz, \$85; wall mirror in ornate gold leaf frame, \$50; 2-wooden gold leafed candlestick holders for wall mounting, \$20. Gene, x30182 or 480-9580.

Queen sz waterbed w/6 drawers, bookcase hdbd w/ mirror, mattress, heater, liner, rails, \$80 firm. 992-4117.

Beige couch & love seat, \$120; recliner, \$45. 474-2126.

King sz waterbed w/access, \$150; Graco deluxe stroller, \$20. 326-3737.

Early American couch & matching rocking chair, blue & brown plaid, FPL utensil, patio table w/2 chairs. 474-4419.

Genuine brass qn sz bed/frame, \$450; Weed eater brand, 5hp rear-tine tiller, \$450; size adjustable bed frame, \$10. x39129 or 997-2280.

Leather sofa, loveseat, chair, brown, \$700. x37124 or 335-5373.

Toshiba microwave, 600 watts, 1.6 cu ft. glass bottom tray, ex cond, \$80. 488-3256.

Early American Pine sofa; recliner; chair; tables; bar stools; bunkbeds & twined w/matt; mirrors; wall hangings, wagon wheel light fixtures; dining table w/lamps & 6 chairs; kitchen table w/6 chairs; wnt canopy bed w/boxes/springs/matt; custom built walnut bar w/stereo cabinets; lamps; pictures; wine rack; desk chair; wrought iron & wood garden bench. Arthur, 474-3507.

Childcraft natural oak crib/junior bed & crib sheets, \$200; Fisher Price playpen, \$40. Irene, x39043 or 480-9812.

Queen sz mattress/box springs, Sealy Posturepedic, ex cond, 5 sets of sheets. 286-8822.

Hardwood dressers, 2, 6-dwr upright, 8-dwr w/cabinet/mirror, ex cond, \$300/both. 474-4763.

Zenith 19" color TV, cable ready, ex picture, ex cond, needs remote, \$150. Mike, x47794 or 332-1617.

Gas oven w/microwave, \$100. Jeff, x49860 or 554-2869.

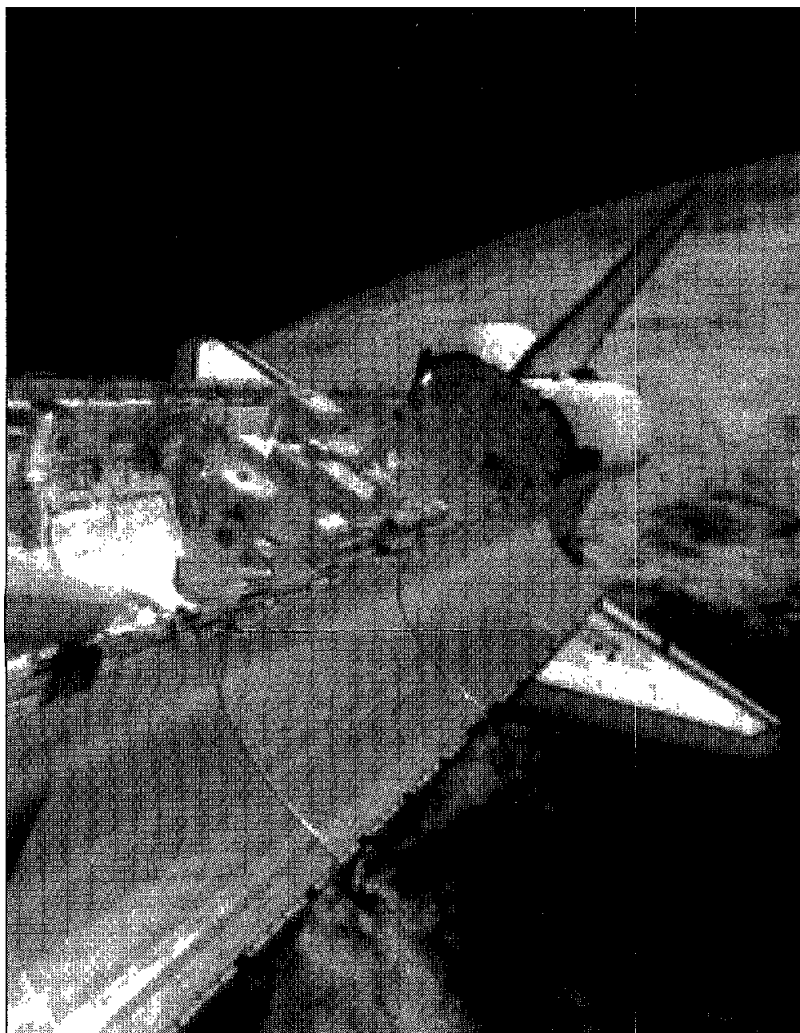
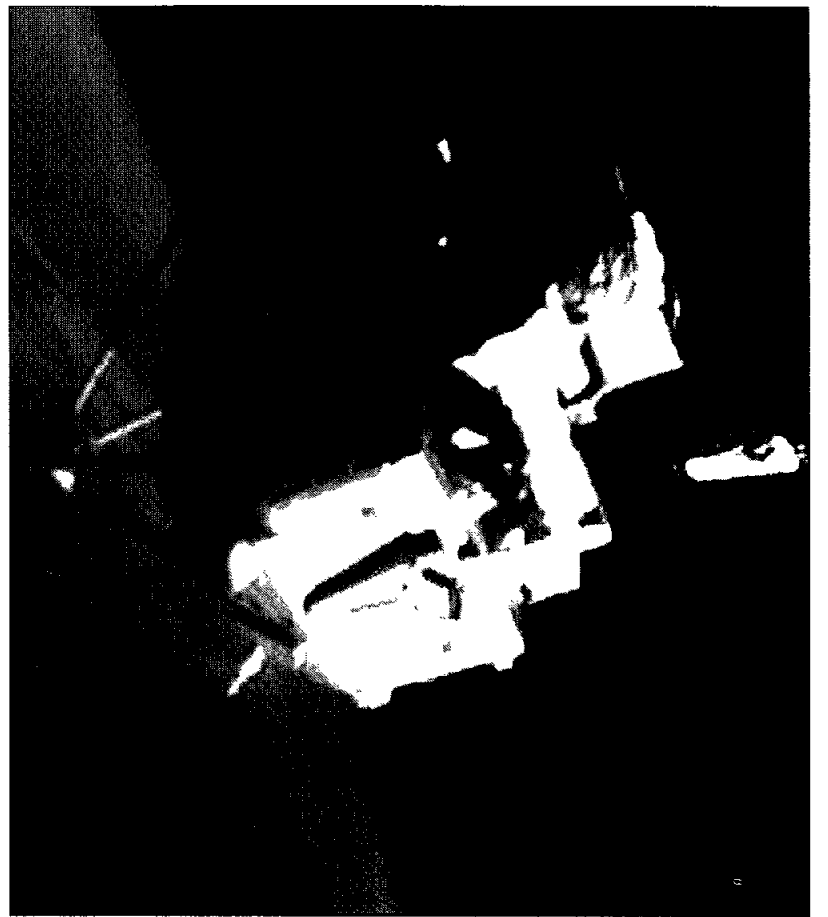
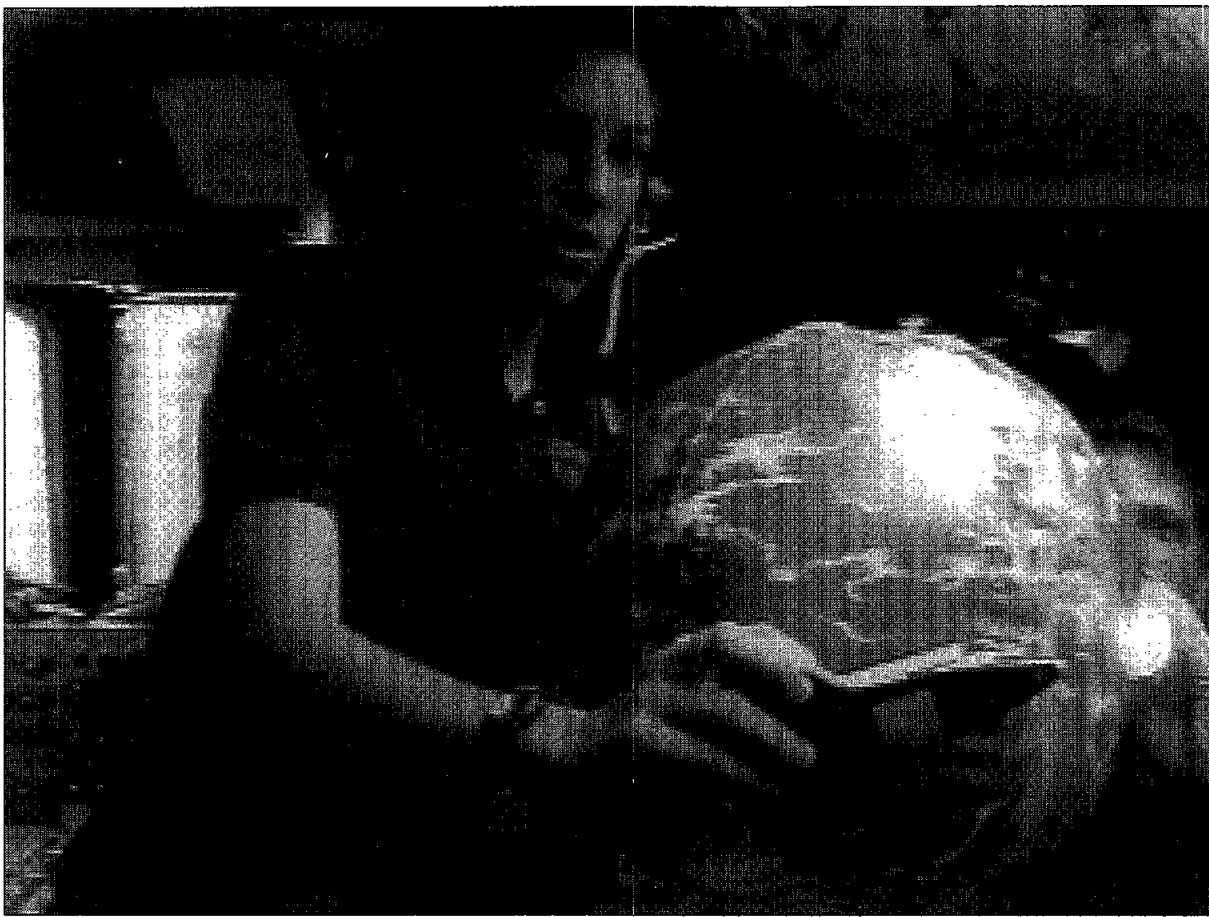
Persian rug, 1-47" x 78", Bijar all wool, 1-5' x 82", Niesen silk & wool. 326-5178.

Bunk beds w/mattresses, \$125/obo; wood wardrobe cabinet, \$75/obo. x38385.

Round pedestal dining table, wood, 42" dia, ex cond, \$150; Maytag W/D, lg capacity, 2 spd, 2 yrs old, \$700/both. Rita, x32686.

Wicker changing table, \$15; black Halogen Torchier lamp, \$12; Beatrix Potter comforter, \$10; RCA 19" color TV, \$75. 280-8060.

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On-line with *Atlantis*

Improvements in wide-area computer networking allow quick access to shuttle reports, images

The Space Shuttle *Atlantis* landed Monday morning, capping an 11-day flight to study Earth's atmosphere and the how the Sun's radiation and human activities affect the fragile layer that protects and nurtures life on this planet.

While it will take several days to process the thousands of photographs returned from the STS-66 mission, a powerful new computer networking tool is allowing a growing number of people around the world to download information and images of the activities on board almost as they occur.

Through Internet connections and graphical interfaces, computer users now have access to both shuttle and science status reports and images from each mission.

These images are stills taken from video downlinks, captured by the Information Services Directorate's Imagery Services Branch and released by the Public Affairs Office. These efforts are part of an overall effort by NASA to utilize the capabilities of the Internet to share information and release it to the public.

Video stills from each shuttle mission now can be found on the Internet at:

<http://images.jsc.nasa.gov/html/home.htm>

STS-66 status reports and mission television schedules are available at:

<ftp://ftp.hq.nasa.gov/pub/pao/statrpt/jsc/>

STS-66 science reports are available at:

<ftp://ftp.hq.nasa.gov/pub/pao/statrpt/msfc/>

From top to bottom, left to right:

1) Payload Commander Ellen Ochoa provides a science demonstration that explains work of the Atmospheric Laboratory for Applications and Science-3 payload.

2) Ochoa uses *Atlantis*' robot arm to deploy the Cryogenic Infrared Spectrometer Telescope for Atmosphere and its Shuttle Pallet Satellite for eight days of free-flying observations.

3) The ATLAS-3 instruments can be seen in *Atlantis*' payload bay from the perspective of one of the robot arm's cameras.

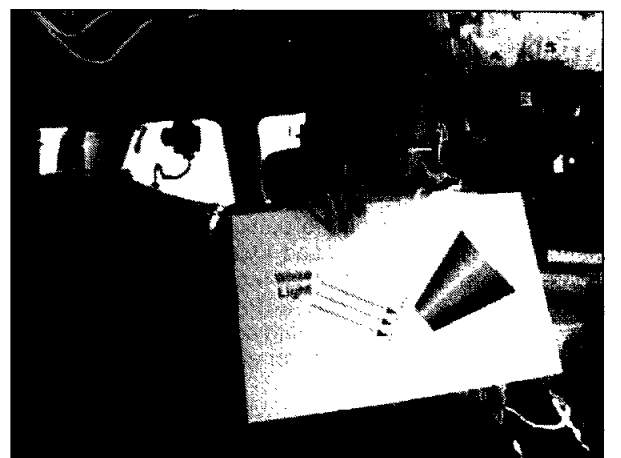
4) Commander Don McMonagle works at his flight deck station.

5) Holding a model of the CRISTA-SPAS instrument suite, Mission Specialist Jean-François Clervoy gives another science demonstration.

6) Mission Specialist Scott Parazynski takes his turn in front of the television cameras for another science demonstration, this one including an explanation of how prisms are used to separate light wavelengths.

7) Pilot Curt Brown, left, and Clervoy coordinate Earth observations photography that will be used to help scientists characterize the data they received from the ATLAS-3 instruments.

8) The entire crew gathers for its in-flight news conference. Back row from left: Pilot Curt Brown, Mission Specialists Jean-François Clervoy and Scott Parazynski. From row, from left: Mission Specialist Joe Tanner, Commander Don McMonagle and Payload Commander Ellen Ochoa. □



Flight dynamics team hangs STS-68 plaque

JSC

People

Roger Simpson hung the STS-66 plaque in Mission Control on behalf of the Flight Dynamics Team for its unequalled accuracy in targeting the repeat passes required for the Space Radar Laboratory-2 to perform the interferometry.

The FDO team worked closely with several key disciplines to coordinate the successful maneuvers. Included were the PROP Team, led by Bill Powers; the DPS Team, led by Jim Hill; the Mission Evaluation Room, led by David Gerlach, Ken Brown,

Don McCormak and Bert Wagster; the LORAL Team, led by Ted Keller; and the SAIL Team, with Bill Ritz, Brent Bynum, Willie Ragin, Hugh Stovall, Eric Bingham and Ray Barrington.

For their support the key disciplines each had a representative receive a certificate on behalf of their teams and stand by the ladder to signify their continued support.

Nickel heads Aviation Safety Office

Jack "Triple" Nickel has been named chief of JSC's Aviation Safety Office at Ellington Field.

Nickel replaces Arthur "Ace" Beall and will act as the focal point on all

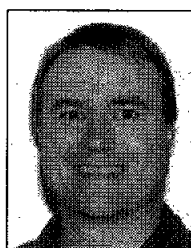
aviation and ground safety matters. He will work closely with Flight Crew Operations Director David Leestma, the Astronaut Office, Aircraft Operations Division, NASA Headquarters and other centers, the Federal Aviation Administration and the Air Force and Navy.

Stephen J. Feaster was named Aviation Safety Officer, replacing Nickel and becoming his principal assistant.

Ruiz top secretary

Lucy Ruiz recently received JSC's Marilyn J. Bocking Award for Secretarial Excellence.

Ruiz, who has been on special assignment as the secretary to the JSC Safety Review Board.



Simpson



Nickel



Ruiz



McDaniel

She was honored for her willingness, organization, and efficiency in preparing complex 40- to 60-page briefings in two days' time.

McDaniel wins award

Merrell McDaniel, a secretary in the Information Resource Management, recently received the Ginny McCormick Award from the Council of Federal Data Center Directors.

The \$2,000 scholarship is awarded to outstanding individuals in information resource. The award includes a trip in December to the Information Processing Interagency Conference in Atlanta. McDaniel was honored for her enthusiasm in learning about information resource management and her ability to participate in team activity while handling her normal secretarial duties.

O, Christmas tree, O, Christmas tree

The Employee Activities Association will hold its annual Christmas tree sale of fresh Virginia Pines from 9 a.m.-noon Dec. 3, at the Gilruth Center softball field No. 4. Ticket sales began Wednesday in the exchange store. Tree prices range from \$17 for a five- to eight-foot tree and \$33 for a 10- to 12-foot tree.

Tickets are required to shop for a tree and no tickets will be sold at the gate. A limited number of tickets are available to civil and contractor employees. Trees will be sold on a first-come, first-served basis.

Santa will be on hand to share refreshments. For more information call the JSC Exchange Store at x35350.

Volunteers to support high school chapter

(Continued from Page 1)

schools will be provided an exposition to display their projects, high school students will participate in a science competition, and college students will present their senior project or graduate thesis in a technical forum.

To date, this is the only opportunity for undergraduates to display their work, Carrington said. First place winners of middle and high school classes will receive a one week, all expenses paid trip to space camp, provided by Black United Fund of Texas. Place winners of high school competition receive a trip to the National Science Competition which will be held during the NTA National Conference July 20-22 in Houston.

Volunteers also are asked to promote the NAT's student chapter at Madison High School. This project is designed to further enhance student knowledge on careers the scientific and technical environment.

Volunteers would also familiarize students with NTA activities and give them an opportunity to participate with local chapters and local university and college chapters. The student chapter is current major project is serving as math science mentors (3-T) program for elementary schools.

Individuals interested in any of these programs are encouraged to call Stewart at x31404, or Gladys Henderson at x47936.

ATLAS-3 measures home planet's health

(Continued from Page 1)

could help explain why there is no lasting hole in the Northern Hemisphere in the winter and spring," said Principal Investigator Dirk Oferman. "So far, this is unexplained."

The MAHRSI instrument also provided "amazing" data according to Principal Investigator Robert Conway. MAHRSI collected high-resolution, global maps of hydroxyl in the middle atmosphere and performed 30 hours of nitric oxide mapping. Both of these gases are catalysts in ozone destruction.

"The mission not only met all our expectations, but all our hopes and dreams as well," said Mission

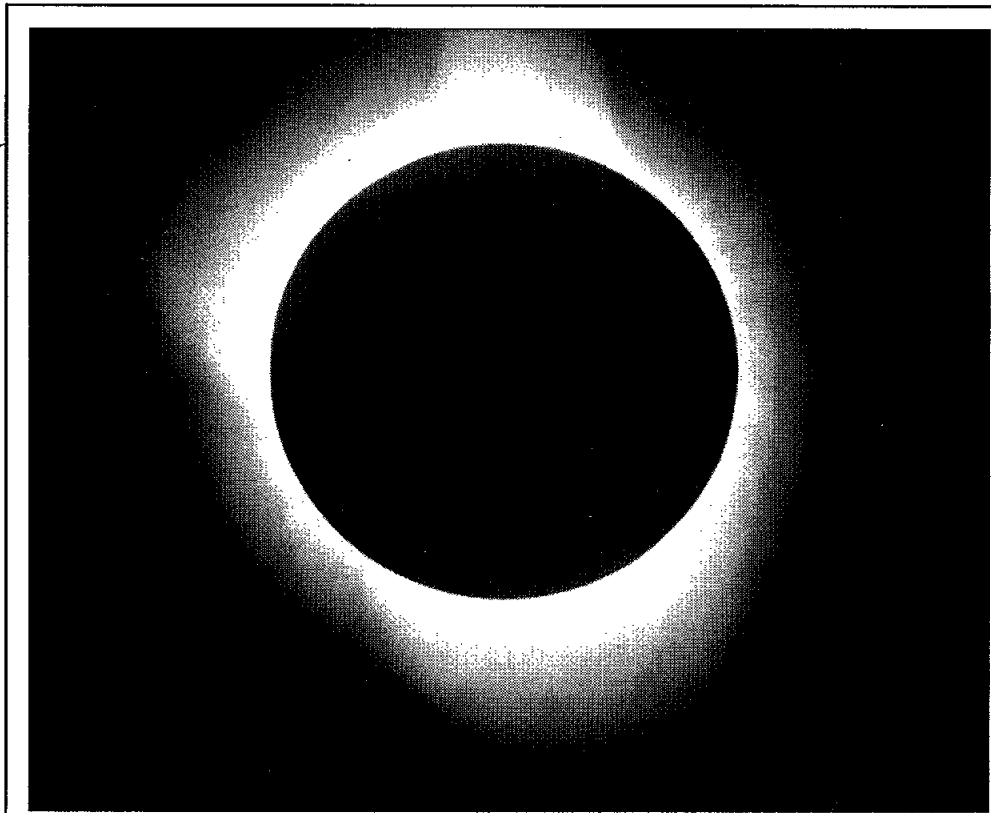


Photo by Paul Maley

STRAIGHT FROM PERU—This photograph shows the recent total eclipse of the Sun as seen from about 30 miles northeast of Tacan, Peru. The picture was taken from of 7,100 feet during the 16th Solar Eclipse Expedition of the JSC Astronomical Society.

Ulysses completes southern solar pass

The Ulysses spacecraft — the first probe to explore the Sun's environment at high latitudes — completed a pass Saturday over the southern solar pole, ending the first phase of its primary mission.

The spacecraft reached 70 degrees south of the Sun's equator at 2 p.m. CST on Nov. 5, crossing back into what scientists have defined as a lower latitude region of the Sun's environment. Just as the Arctic Circle on Earth lies at about 67 degrees north of the Earth's equator, so too have the

polar regions of the Sun been theoretically defined as lying about 70 degrees north and south of the Sun's equator.

As the spacecraft leaves an area of high scientific interest, project scientists have reported some early findings, including:

- In the Sun's polar regions, the solar wind — a very hot, ionized flow of gases and energetic particles emanating from the Sun—was found to be flowing at a very high velocity of about 2 million miles per hour, nearly double the speed at which the

solar wind is known to flow at lower latitudes.

- The way that Ulysses sees the Sun's magnetic field is very different from the way it is seen by observations from Earth. Measurements from Earth show the Sun having a magnetic field with magnetic poles that are not the same as the Sun's north and south poles; as the Sun rotates, the magnetic poles go around. Ulysses, however, found a uniform magnetic field at the Sun and did not detect any magnetic pole.

- Cosmic ray intensity in this high latitude increased, but not nearly to the extent scientists had predicted.

Ulysses will be heading back toward the Sun's equator, where it will make its closest approach about 1.3 astronomical units (120 million miles) on March 12. At that time, scientists will conduct a "coronal sounding" experiment using the spacecraft's radio beam to measure electron content in the Sun's corona. Ulysses will continue its northern ascent to traverse the Sun's northern pole beginning on June 19.

Thrift Savings Plan begins open season

Open season for the Thrift Savings Plan began Tuesday, so it's time for employees to start thinking about whether they need to make any changes to their contributions.

Until Jan. 31, eligible employees may begin contributing, change contribution amounts, change the allocation of their contributions among available investment funds, end contributions or waive enrollment.

The effective date for changes depends on when the election form is received by benefits specialists. If the form is received by Jan. 8, changes are effective Jan. 9. If changes are received between Jan. 9 and 20 they'll start Jan. 22. If changes are received between Jan. 23 and 31, they'll go into effect Feb. 5.

When employees adjust how they

want their retirement savings account funds invested, the changes apply to all contributions in the account, whether they are employee, agency automatic or agency-matching.

Federal Employee Retirement System employees not making contributions may still elect to invest all or any portion of their agency automatic contributions in

any of the funds.

JSC's Human Resources Office will be sending out open season updates.

A plan summary and TSP-1 election form may be obtained from the Employee Services Section, AHZ Bldg. 45, Rm. 140, which is where completed forms should be sent. For additional information, call x32681.

Space News Roundup

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

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

Editor Kelly Humphries
Associate Editor Karen Schmidt
Associate Editor Eileen Hawley

Cafeteria service reduced next Friday

With so many employees still full from Thanksgiving dinner or brown bagging with turkey leftovers, JSC cafeteria service will be reduced next Friday.

The Bldg. 3 cafeteria will be closed for the holiday Thursday and the Friday after Thanksgiving, Nov. 24-25. The Bldg. 11 cafeteria will be closed Thursday and will provide limited service on Friday. Breakfast will not be served on Friday. Lunch, served from 11 a.m. to 2 p.m., will include entrees, soups, salads and hot and cold sandwiches.

Regular cafeteria service will resume on Nov. 28.