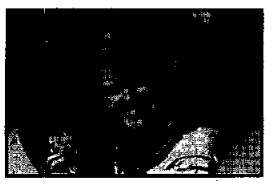
National Aeronautics and Space Administration
Lyndon B. Johnson Space Center
Houston, Texas



Phase 1 pioneering

Astronaut Shannon Lucid begins a new era in the space station program. Story on Page 3.

Many thanks

STS-75 Commander Andy Allen sends his thanks for the support of JSC workers. Letter on Page 4.

Space News Roundup

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JSC photo by Mark Sowa

JSC Director George Abbey, right, greets Commander Andy Allen and other crew members on their return to Ellington Field last Saturday. The STS-75 crew spent 15 days on board *Columbia* conducting a variety of scientific experiments that will be shared by an international team of scientists.

Columbia's crew returns home praising ground support teams

By Karen Schmidt

Columbia ended its 16-day mission at 7:58 a.m. CST last Saturday returning to Kennedy Space Center with a cache of scientific data for researchers around the world.

"You have written a page in the history of Italy that will never be forgotten." said The Honorable Sabastino Salvatori, Consul General of Italy in Houston. "We are very proud of you. Thanks to this marvelous nation of America that is so generous and hospitable to allow cherished dreams to come true."

With a bonus day in space, researchers working with the United States Microgravity Payload collected more than their anticipated data on fire-related phenomena and materials processing, and the Tethered Satellite team gained knowledge to shape the future of tethered satellites in space.

The STS-75 crew—Commander Andy Allen, Pilot Scott Horowitz, Mission Specialists Jeff Hoffman, Maurizio Cheli, Claude Nicollier and Franklin Chang-Diaz and Payload Specialist Umberto Guidoni—returned to Houston about 10 hours after landing with praise for their team mates, both in orbit and on the ground.

"Sometimes you learn more by things that go wrong than by things that you expect," Allen said. He added that the ground team was extraordinary when faced with a difficult situation. "When things go a little bit different than what we had planned, they come up with some ideas that are phenomenal, and it makes me think of the NASA of old where they just take the challenge on to make these things work."

Rookie space flyer Horowitz was overwhelmed by the experience.

"It takes thousands and thousands of people to make the space shuttle

Please see **STS-75**, Page 4

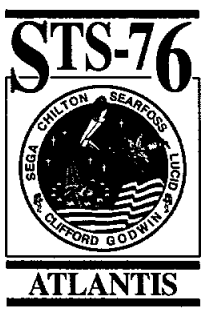
Atlantis set for third shuttle, Mir docking mission

By James Hartsfield

Only about a day after *Columbia* was towed from Kennedy Space Center's runway following its 15-day flight on STS-75, shuttle managers set Thursday as the official launch date for *Atlantis* on STS-76, the third shuttle-Mir docking mission.

The STS-76 crew—Commander Kevin Chilton, Pilot Rick Searfoss and Mission Specialists Rich Clifford, Linda Godwin, Ron Sega and Shannon Lucid—will fly to KSC Sunday evening in preparation for the launch.

Following *Atlantis*' docking with Mir on Day three of the mission, Lucid will become a member of the Mir-21 crew, planning to spend 140 days aloft aboard the Russian Mir station. *Atlantis* will also bring fresh supplies to Mir, including an expected 1,400 pounds of water and 3,700 pounds of equipment. The equipment ranges from a vast amount of scientific experiment equipment and station logistics such as a Russian gyrodyne and three storage batteries.



In addition, Godwin and Clifford will perform the first space walk ever during a shuttle-Mir docking on the sixth day of STS-76. The two space walkers will exit *Atlantis*' airlock during the time the two spacecraft are docked to deploy an experiment package that will characterize the station's exterior environment over the coming months. The Mir Environmental Effects Payload, as the experiments are called, will pave the way for engineers to better assess the environment anticipated for the International Space Station. The space walk itself will blaze a trail toward the International Space Station as well, with Godwin and Clifford wearing the Simplified Aid For EVA Rescue, or SAFER, self-rescue backpack for its first operational use in orbit. SAFER, designed specifically for times when the shuttle is docked to a space station, is used only in the event a space walker drifts free and must fly back to the spacecraft.

Aboard Mir awaiting Lucid's arrival are Mir 21 Commander Yuri Onufriyenko and Flight Engineer Yuri Usachev. The two were launched aboard a Soyuz craft on Feb. 21.

An on-time launch for *Atlantis* at 2:35 a.m. CST Thursday would lead to a landing at about 6:54 a.m. CST March 30. The launch countdown will begin at 1 a.m. CST Monday, and there is a seven-minute launch window.

Meanwhile, *Columbia* is now in the Bay 2 shuttle processing hangar at KSC, and preliminary inspections show the oldest shuttle in excellent condition following STS-75. Technicians reported 96 dings to the thermal protection tiles, a below average number when compared to previous flights. *Columbia*'s cargo bay doors were opened late Tuesday. The United States Microgravity Payload-3 experiments and the Tethered Satellite System equipment were to begin being removed today.

The payloads will be transported to KSC's Operations and Checkout Bldg. this weekend. *Columbia*'s next flight is planned for late June on STS-78, carrying the Life and Microgravity Sciences payload.

Elsewhere, *Endeavour* remains on track for a mid-May launch on STS-77, carrying Spacehab-4 and the Spartan-207.

Employees will soon change payroll options via phone lines

By Deborah Conder

Beginning in June, NASA civil servants will have the opportunity to process certain payroll actions simply by making a telephone call.

The automated system, called Employee Express, was developed by an interagency task force chartered under the Office of Personnel Management.

"Implementation of systems such as Employee Express are helping us to overhaul the way we do business," says Wayne Draper, JSC's Chief Financial Officer. "The idea is to take advantage of developed technology and utilize it to streamline our processes while providing customer-oriented capabilities. Employee Express will accelerate processing of employee actions. Implementation of Employee Express demonstrates that we're on our way to providing employees with automated customer-service applications."

Employee Express will be implemented in at least two phases for NASA employees. Phase 1 begins this Spring and includes the capability to change federal tax withholding, state tax withholding, direct deposits, voluntary allotments and home address changes.

Phase 2, tentatively scheduled for the Fall of 1996, potentially includes capabilities to modify health benefits, thrift savings plan, savings bonds, combined federal campaign contributions and county or city taxes.

The computer-based system allows access 24 hours a day, 7 days a week by dialing a 1-800 number. This will eliminate the need for employees to complete a form and forward it to the appropriate office for manual processing. After dialing, employees will identify themselves using a Personal Identification Number or PIN. Every employee will be assigned a PIN from OPM prior to implementation of Employee Express.

JSC employees will be hearing more about Employee Express in the weeks to come. "Our plan is to provide employees with enough information and tools prior to implementation so that once we get the system up and running, it will be user-friendly for all," Draper said. Employees will begin seeing flyers, posters and brochures around the center. Training classes also will be provided, so employees will have opportunities to ask questions and find out more about the system.

Science institutes report now avaliable on Internet

NASA has released its NASA Science Institutes Plan report, following a six-month period of study by the NASA Science Institutes Team and modifications based on public comments.

The NASA Science Institutes concept began May 19, 1995, when NASA Administrator Daniel S. Goldin released results of an internal review conducted by the agency's Zero Base Review Team. The ZBR science recommendations included a proposal that science "institutes" be formed at many of NASA's centers—including JSC—with goals to strengthen the quality of NASA science, to bind NASA scientists more effectively to the external community and to increase the effectiveness of the links between the external community and NASA's immense engineering and technical resources.

The report is available on the Internet at URL:

http://galaxy.hq.nasa.gov/Institutes/instplan.html

Eileen Collins

Luncheon features women pilots

The Equal Opportunity Programs Office and the 1996 Women's History Month Committee will host the JSC's Women's History Month observance at 11:30 a.m.-1:30 p.m. March 29, at the Gilruth Center. This year's theme is "Building the Future on the Past: Women in Flight."

The program will feature a panel discussion by four women who have varied experiences in flight-related activities. Panel members include Mildred "Hut" Ferree, a Women's Air Force service pilot, or WASP from World War II; Yvonne Cagle, retired Air Force major and flight surgeon who was deployed during Desert Shield; Stephanie Wells, retired Air Force major and NASA staff pilot who flew during Desert Storm; and Astronaut Eileen Collins, NASA's first woman shuttle pilot. The panel members' experience reflects the evolution and diversity of women's roles in flight activities over the past 50 years.

Ferree served as an engineering test pilot at Blackland Army Air Base in Waco, Texas. Following her WASP service, Ferree has been active in financial and academic arenas, as well as participating in several women's aviation groups.

Please see **PILOTS**, Page 4

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.

Walt Disney's World on Ice—A Star Packed Show: April 6 at the Summit. Tickets cost $10.

JSC Picnic: March 31 at Astroworld. Tickets cost $12 for the first 3,800, $20 after. Tickets includes all Astroworld rides and attractions, barbecue dinner and a free return ticket to Holiday in the Park.

Children's Easter Party: 10 a.m. - noon Apr. 6 at Gilruth Center. Tickets cost $4 for children, $1 for adults.

Hockey: Houston Aeros vs Detroit Vipers 6 p.m. April 14 at the Summit. Tickets cost $12.50.

Basketball: Houston Rockets vs. Denver Nuggets April 11. Tickets cost $16.50 and $22.50.

Sea World: Adult tickets cost $24.50, Children (3-11) cost $17.25.

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

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

Stamps: Book of 20, $6.40.

Gold C books: $10.

Entertainment 96 books: $30.

Certificate books: Order popular brand coffees and cereals by mail and receive substantial discounts. Booklet cost $30.

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

Metro tickets: Passes, books and single tickets available.

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.

Fitness Challenge: 1996 Fitness Challenge runs from March 1-Aug. 31. Employees are eligible to win $100 gift certificates. For more information call Larry Wier at x30301.

Defensive driving: One day course is offered once a month. Cost is $25. Interested employees should call the Gilruth.

Stamp club: Meets at 7 p.m. every 2nd and 4th Monday in Rm. 216.

Aerobics: new classes begin April 2.

Women's self defense: Martial Arts training for women only from 5-6 p.m. Tuesdays and Wednesdays. Cost is $25 a month.

Weight safety: Required course for employees wishing to use the weight room are offered from 8-9:30 p.m. March 28. Pre-registration is required. Cost is $5.

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

Alkido: Martial arts class meets from 5-7 p.m. Wednesday. Cost is $25 per month. New classes begin the first of each month.

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

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

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

JSC

Dates & Data

Today

Papers due: The American Institute of Aeronautics and Astronautics is seeking papers to be presented at the 21st annual Technical Symposium to be held May 23 at the Center for Advanced Space Studies. The theme of this year's symposium is "New Frontiers Through Technologies, Process and Paradigms." Abstracts should be submitted with a NASA Form FF427 and a paper/author information sheet to Charles Teixeria, Mail Code EA63, email at cteixeir@gp903.jsc.nasa .gov. For information call Teixeria at x34647.

Cafeteria menu: Special: baked chicken. Total Health: roast beef au jus. Entrees: deviled crab, baked chicken, beef cannelloni, steamed pollock, Reuben sandwich. Soup: seafood gumbo. Vegetables: seasoned carrots, peas, breaded okra, steamed cauliflower.

Saturday

Clothing sale: A used clothing and toy fair will be held from 8 a.m.-noon March 16 at St. Paul Church, 18223 point Lookout Dr. Proceeds benefit the JSC Child Care Center. For more information call Vincent Berend at 333-9739.

Monday

Eye Presentation: The Total Health Program will host an eye presentation at 11:30 a.m. March 18 in Bldg. 30 auditorium. Bernard Milstein and Daniel Gold for the Eye Clinic of Texas will discuss "PRK Laser Vision Correction." For more information call the Clinic at x34111.

Cafeteria menu: Special: hamburger steak. Total Health: vegetable lasagna. Entrees: beef Burgundy over noodles, barbecue smoked link, vegetable lasagna, steamed fish, French dip sandwich. Soup: chicken and wild rice. Vegetables: buttered corn, steamed spinach, vegetable sticks, navy beans.

Tuesday

Cafeteria menu: Special: turkey and dressing. Total Health: roast turkey. Entrees: barbecue spare ribs, liver and onions, baked chicken, steamed fish French dip sandwich. Soup: black bean and rice. Vegetables: steamed broccoli, California vegetables, breaded squash, savory dressing.

Wednesday

Reservation due: The JSC Chapter of the National Management Association and the American Institute of Aeronautics and Astronautics will meet at 5 p.m. March 28 at the Gilruth Center. Jim "Mattress Mac" McIngvale will discuss "Hardwork, Dedication and Commitment to Excellence." Reservations must be made no later than March 20. For information, contact Kathleen Kaminski at 483-8706.

Astronomy seminar: The JSC Astronomy Seminar will meet at noon March 20 in Bldg. 31, Rm. 129. Greg Bennett will discuss "The Artemis Project—Private Enterprise on The Moon." For more information, call Al Jackson at 333-7679.

Cycle club: The Space City Cycle Club will meet at 5 p.m. March 20 at the Grumman Bldg. at Ellington Field. For more information call Mike Prendergast at x45164.

Toastmasters meet: The Spaceland Toastmasters will have a special evening meeting at 6 p.m. March 20. Call Jeannette Kirinich x45752 for details.

Scuba club meets: The Lunarfins will meet at 7:30 p.m. March 20 at Redfish Restaurant under the Kemah/Seabrook Bridge, Seabrook Side. For more information call Fred Toole at x33201.

Cafeteria menu: Special: Mexican dinner. Total Health: ground turkey tacos. Entrees: beef cannelloni, turkey tacos, steamed fish, Reuben sandwich. Soup: seafood gumbo. Vegetables: peas and carrots, ranch beans, mustard greens, Spanish rice.

Thursday

Directors' meet: The Space Family Education board of Directors will meet at 11:30 a.m. March 21 in Bldg. 45 Rm. 712D. For more information on this open meeting call Gretchen Thomas at x37664.

Cafeteria menu: Special: smothered steak. Total Health: steamed pollock. Entrees: chicken and dumplings, corned beef and cabbage, broccoli cheese quiche, steamed fish, French dip sandwich. Soup: navy bean soup. Vegetables: steamed cabbage, cauliflower au gratin, buttered carrots, lima beans.

Friday

Cafeteria menu: Special: baked meatloaf. Total Health: baked potato. Entrees: chicken fajitias, ham steak, pork and beef eggrolls, steamed fish, Reuben sandwich. Soup: seafood gumbo. Vegetables: stewed tomatoes, seasoned spinach, cut corn, macaroni and cheese.

March 23

Star gazing: The JSC Astronomical Society and Challenger 7 Memorial Park invite the public to view the spring skies through telescopes from dusk to 10 p.m. March 23. For more information call Bill Williams 339-1367 evenings.

March 26

Artemis society meets: The Artemis Society will meet at 7 p.m. March 26 at 13100 Space Center Blvd. For information call Michael St. George at 783-0727.

JSC

Swap Shop

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

Property

Sale: Laporte/Creekmont, 3-2-2, FPL, new roof, new carpet, linoleum, fresh paint, $65.5k. 992-5080.

Sale: Wooded lot 90' x 135' in Taylor Lake Estates, $39.5k can finance. Don, x38039 or 333-1751.

Sale: 130 cleared acres, 5 pastures, 15 mi East of Tyler, house, hay & horse barns, all amenities. 488-5058.

Sale: Clear Lake, Oakbrook, 3-2-2, cul-de-sac, large lot, trees, ex condition, $87k. 488-4069.

Sale: Kirkwood South, 3-2-2 on large cul-de-sac lot, new roof/A/C & heat, alarm system, covered patio, deck, landscaping, $73.5k. 484-2192.

Sale: Waterfront lot, .5 acres on Dickinson bayou, recent bulkhead, $75k obo. x31370 or 334-7412.

Sale: Webster condo, upstairs flat, 2-2-2CP, new A/C, solar screens, kitchen & bath upgrades, wetbar & FPL, ceiling fans, W/D conn, $37.5k. 280-0285.

Sale/Lease: Clear Lake condo, 1-1-1CP + study, high ceilings, french doors, W/D, ceiling fan in master bedroom, alarm, security gates. 977-5763.

Sale: League City, BayRidge, 3-2-2, cul-de-sac street, new roof, $55k make offer. James, 286-1934.

Sale: League City, Meadow Bend, 3-2-2, cul-de-sac, 1600 sq ft, FPL, laundry room, above ground pool, huge back yard. x37321 or 334-3756.

Lease: University Green, 3-2-2, FPL, formal dining, breakfast room, swimming pool, tennis key entry, $1,025 1 yr lease. x28990 or 992-8506.

Lease: Seabrook, 3-2-2, new carpet, fresh paint, updated, pets nego, $750 mo + $750 dep. 326-5812.

Lease; Brookforest, 3-2-2, all appliances, outdoor spa & other extras, partially furn or unfurnished, available 4/1. 486-5331 or 725-9028.

Sale: Promotional vacation package, includes 7 days & 6 nights in Ft Lauderdale & Bahamas & cruise to Bahamas, $398. x33574 or 486-8963.

Rent: Beach house, fully furnished, ocean view, Crystal Beach, Galveston County, sleeps 10, cable TV, FPL, weekend & weekly rates. 486-1888.

Rent: Arkansas cottage overlooking Blue Mt Lake & Mount Magazine, furnished, huge FPL, $50/day or $250/wkly. Corcoran, x47806 or 334-7531.

Cars & Trucks

'80 Chevy Luv PU, w/parts, runs, needs work, make offer. Ray, x38030.

'86 Mercury Sable, burgundy/red interior, 3.0L, runs great. 486-7678.

'91 Honda Civic, 4 door, white, 30k mi, $9.6k. 554-5492.

'84 Mazda RX-7, GSL-SE black/red, 5 spd, sunroof, AM/FM/cass, good cond, $2,950. 318-0412.

'86 Ford Crown Victoria, P/S, P/B, P/L, reliable work/school car, 157k mi, A/C not working, $1.2k obo. x34627 or 334-4098.

'94 Chevy Astro ext, van, customized by Tiarra Motorcoach Conversions, 4 capt chairs, AT lock brakes, AM/FM/cass, 6 cyl, driver side airbag, $17.5k. x34842 or 474-7982.

'88 Mazda 626 LX Touring sedan, loaded, sunroof, blue, ex cond, 96k mi, $5.6k. x37130.

'76 MG Midget, Brit Racing green, restored, ex cond, runs great, classic, $5k obo. Shane, 244-1022 or 992-1162.

'93 Ford Ranger Super cab, STS 4.0 liter V6, 5 spd manual, ex cond, $11k. x38277 or 280-2230.

'92 Buick Park Ave, 4 dr, white w/leather seats, 62k mi, $11.5k. John, x32821 or 944-4048.

'92 Chevy Lumina, Euro 3.4, black, loaded, alarm & Delco Bose/cass, garaged, 1 owner, ex cond, $9.5. Ron, x33196.

'87 Honda CRX, good cond, new motor, runs great, AM/FM/cass, $3.5k obo. Steve, 992-2841.

'92 Pontiac Sunbird SE, convertible, loaded, 4 cyl, auto, good cond, $8.5k. x36228 or 409-848-1615.

'85 Chevy Caprice Classic, white, 4 dr, 102k mi, ex cond, $2.3k obo. x35859 or 486-4870.

'88 Ford Bronco II, A/C, AM/FM/cass, 69k mi, runs but needs transmission work, $2.8k. 409-935-9127.

'85 Volvo 740 Turbo, A/C, wheels w/lock, alarm, tinted windows, cass, AM/FM w/equalizer, black, as is $3.3k. 409-935-9127.

'91 Ford Explorer, ex cond, 5 spd, new Pirellis, $9.9k obo. Doug, x35914 or 286-7631.

'92 Camry, white w/blue inter, AT, cruise, steering, alarm, sunroof, 61k mi, garaged, $12,750. 498-7343.

'85 Baritz Cadillac, cobalt blue, 77k mi, 2 dr, loaded, leather, 77k mi, mint cond. 244-8059.

'76 Buick Regal, 2 dr, blue, 350 V8, 81.5k mi, good cond, $1400. Conner, x38193.

Boats & Planes

'94 SeaRay SeaRayder, 14', 90Hp jet, less than 25 hrs use, accessories, warranty, garage kept, ex condition, $6.5k or take up payments. x47922 or 331-8521.

Columbia, 30' sailboat, live-aboard, loaded w/ new Loran, VHF, stereo, 5 sails, fresh bottom-job, Bimini, Dodger, refrig, TV, A/C, heater & more, top cond, $24.7k. 334-7075.

'85 Chris Craft Sportsman, 36', twin Merc engines, shower, toilet, refrig, low eng hrs, lg open back deck, $35k obo cash only. 339-1197.

'84 Century Riviera 6 meter ski boat & '95 Shorelander galvanized trailer, 260 Hp Merc, $10k. x30166 or 286-7374.

'92 Kawasaki Jet Ski 750, super sport, new engine, trailer, life vests, $3.5k obo. x32264 or 488-5962.

'93 Casun 189 DC Bass boat, 150 Johnson, 52# trolling motor, full flipping deck, cover & many extras, $13.5k. 585-2019.

Cycles

'91 Suzuki Intruder, red, ex clean, 18.4k miles, $3.5 obo. Marvin, x36174 or 592-6328.

'90 Honda CR250, ex cond, $1.8k. 409-935-0777.

Audiovisual & Computers

Computer mother board, 486DX 4100 CPU w/8 megs of RAM, $400 obo. x45131.

486 VLB motherboard w/Intel DX2/66 CPU & Genoa SVGA VLB video card, $250 obo. x33187 or 488-5162.

Ex-military PC's, heavy welded steel case's w/PS, chomerics seals, passive EISA backplane, single-board, 386/16 card, I/O w/EMI, fiber optics mods, CPU & KB, $300. JR, 996-9641.

Scott CD receiver, $50; Launch Pad Kids computer operating system, $15; Space Shuttle CD ROM, $15; Kids Zoo CD ROM, $15; Just Grandma & Me CD ROM, $25; Soccer Table, $30. x37130.

Motherboard w/386 DX, 33 processor & HD, floppy Ser/parallel & game controller card, $40 obo. x30883 or 996-1340.

Mac LC 7.0 w/color monitor, Stylewriter, & lots of software, ex cond, $850. Kristi, x32446.

Dell 486DX2-66MHz, full tower system, w/15" monitor, 16 bit Media Vision Sound Card, U.S.R. 14.4 bps fax/modem, 450MB HD, 8 MB RAM, joystick, mouse, $1k. Kent, x34857 or 333-5181.

DX4-100 16MB/1GB $995; DX2-66 8MB/270, $695; Compaq 386 4MB, $395; Pentium 75/100/133 8MB/635, $989/$1059/$1219, new 2 yr warranty; 17" SVGA, $375. Don, 333-1751.

CompuAdd 386 w/1.2 MB 5.25" drive, 40MB HD, 14' Sansung CVGA monitor, mouse, misc, S/W, Panasonic KPX-1124i, 24-pin dot matrix printer, $500 obo; IBM PCjr. w/expansion chassis, IBM color monitor, 640k RAM, 2-5.25" drives, $100 obo. richard, x31488.

486 DX2 motherboard w/256k cache memory, 2 VLB slots & 5 ISA slots, $50. Mark, x30044.

Mac IIx, color monitor, Techmar 40MB tape backup, 200 MB HD, 14.4 baud ext modem, HP Deskwriter printer, extra S/W, $500. Frank, x39512 or 280-8074.

Citizen printer, "CSX-140" w/GSX color option, used, $175. Magdi Yassa, 333-4760 or 486-0788.

Pets & Livestock

Free cat, 2 yrs, yellow striped male, neutered & declawed, some supplies. 212-1396.

Easter Bunnies, born Valentine's Day, available 1st week in April, only 3 choose from, $12.50 ea. Brandon, 482-0969.

Household

Kenmore washer good working cond, $125. 409-948-3113.

Couch, ex cond, 8" long, brown velour, $275 obo. Les, x34203 or 409-925-4607.

Taupe weave, queen sleeper sofa, $125. Mark, 291-9225.

Queen sz waterbed, semi-motionless, 6 drawers, padded rails, all accessories, $80 obo. x45383 or 922-0145.

Dining room table w/pad, 6 high-back padded chairs, china cabinet, ex cond, $1.5k. sofa bed & love seat, $500; BDRM set, qn bed w/mattress, dresser, chest, $500. 486-5331 or 725-9028.

Twin bed set without headboard, will sell or trade for full size mattress. Hope, 332-9094.

Futon frame, light wood sofa type, mattress & mattress cover, $175. 944-8312.

Super single waterbed, w/headboard, 6 drawers in base, mattress & heater, $100 obo. x37066 or 286-4255.

White babycrib w/4 drawer dresser attached, converts into youth bed & dresser. 486-5959.

Sofa, 7', elegant, traditional, cream-colored, cocktail table, Weiman brass/glass oval w/beveled edges, both great cond, $275 ea. 244-8506 or 482-4863.

Two bookshelves, desk & file cabinet, 2 drawer, oak finish, $50 for all, will sell sep. Steven, x36314.

Bunkbeds, corner unit w/dresser, pin, includes mattresses, contemporary B&W comforters, $150 obo. Melissa, x41928 or 338-6798.

Glass table & 4 chairs, 2 recliner chairs, & a wicker love seat & end tables. $250. x36646.

Electric oven, 27" G.E. coppertone, built-in, wall mount oven, works great, $50. Linda, 484-0987.

Sofa, loveseat, recliner, oak coffee table, 2 end tables, enter. center, ex cond, $990 obo. 332-3312.

Duncan Pfyfe mahogany dining suite, 6 chairs & china cabinet, $1.5k. 996-0152.

Mauve color dinette set w/glass top table w/4 chairs, $60; Sofa, loveseat & chair, matching set, ex cond, $300. 773-0080.

King size mattress set, good cond, $175; maple/upholstered colonial loveseat, chair, rocker, $150; freezer, 9 cu ft, $25. 998-7372.

Bedroom set, full sz antique green w/dresser, 5 drwrs chest & 2 night stands, Italian design, great cond, $950. Magdi Yassa, 333-4760 or 486-0788.

Child's Race Car bed, mattress, hutch, chest, $200. x32264 or 488-5962.

Wanted

Want Personnel to join Vanpool departing Meyerland Park & Ride lot at 7:05 am for JSC, consists of on-site personnel 8 am/4:30 pm shift. Pipkins, x35346.

Want personnel to join vanpool departing Suga Land, Southwest Houston for JSC & contractors sites. Alice, x35234.

Want personnel to join VPSI vanpool, departing South Braeswood Park & Ride at 6:50 a.m. for JSC & offsite locations, 7:30 - 4:30 shift. susan Gaynor, 282-5447 or Al Ruder, x34997.

Want roommate to sharehome in El Lago. 333-6821 or 326-2093.

Want non-smoking roommate to share 3 bedroom townhome in the Clear Lake area, $350 mo w/bills paid. John, x30543 or 286-7384.

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

Want to buy '78 thru '82 Honda Accord, running or not. 286-9561.

Want maternity clothes, sz 4. 996-0152.

Miscellaneous

Loveseat & sofa set w/3 end tables, coffee table, $80; desk, $50; Craftsman table saw, $200. Ruby, 470-9497.

Joelle wedding dress, short train white, sz 6/8, veil & krenelin incl, $600; beige mini blinds, $4 ea; leather briefcase, $75; qn sz bed frame, $20; wedding cake top, $15; '96 Franklin planner, $35; exerslide, $20; small pet carrier, $10. Su, x45722.

Craftsman 20" lawn mower, $75; 2 end tables, $30; car top carrier, $35; 2 women's 26" bicyles, $20 ea; men's 26" bicycle, $20. Tom, x49855 or 996-0574.

Olympia seahorse spa, navy, 500 gal cloverlounge holds 8 people, 8' wide x 41" deep, cover included, ex cond, $2k. 337-4182.

Fish tank, 48 gal w/undergravel filter & 2 overflow filters w/gravel cleaning attach, salt & fresh water equipment, $350. 943-7139.

Formals, sz 7, red, floor length, ruffled shoulders, $40; tea length, sz 7, off-white w/pink & lavender flowers, shortsleeved, Jessica McClintock, $40; wedding dress, sz 9/10, long sleeved lace, sweetheart neckline, lace & pearls, fitted waist, veil & slip, $200; Step II benches, adjustable height, $15 ea. Sharon, 480-2646.

Queen sz bed frame & hdbd, $150; box springs & Posturpedic mattress, $100; shortie wet suit, woman sz med build, 5'8" tall. $30. 482-0275.

Aluminum 20' extension ladder, $50. x39150.

2 Bally's PFL health club memberships, 1 charter Gold, 1 Premier Plus. x6614.

Basketball goal for jr kids, 4 to 10 yrs, ex shape, movable, $50. Bob, x33149 or 488-7036.

Stroller, $10; baby crib, $25; Amiga computer system & lots of S/W obo. 480-0831.

Office chairs, swivel/adj, ex cond, $60 ea; oriental style coffee table, extra heavy glass top, ex cond, $350; decorator chair, $20. 488-5564.

Camper top, Toyota short bed, tan, good cond, $100. 332-9995.

Deer rifle, Weatherby Vanguard VGX, 30.06 caliber, Redfield Tracker 3x9 scope, sling hard case, $650 obo. Dennis, x32638 or 482-7237.

Car-top carrier, Sears best, x32116 or 480-1934.

Wedding ring set, .25 carat w/5 small diamonds, appraised $950 sell $500; NoridicFlex World Class exercise equip, ex cond, $800. x36228 or 409-848-1615.

Skier exerciser, $25. 554-5492.

Standing pitch flap, $50; lobster tennis ball machine, $325. 280-2039.

Ladies diamond horseshoe ring, $125; 5 diamond dinner ring, $250; pear ameyhst & oval ameythst rings; black onyx; emerald rings. Faye, 480-6179.

Chainsaw, 16" Craftsman, electric chain saw sharpener, $50. 244-8231 or 326-2893.

Stairclimber, Pro-Form STX-3000, 100 level programmable flywheel resistance, self-leveling pedals, calorie/speed/distance readout, pulse monitor, hvy duty const, book holder, $190. Dave, 488-6838.

Ladies Blue Fox Jacket, ex cond, $300. Linda, 484-0987.

Hardback books, Frederick Forsythe, set of 4, John Jakes, set of 8, $5 ea. Jim, x30411.

Gold filigree/diamond wedding set, sz 6, $950; Weslo CardioGlide, $150; Nishiki red men's 12 spd, racing bike, $150. Melissa, x30545.

Treadmill, Lifestyler 8.0, 0 - 8 mph, 1.25 Hp DC motor, $350. Bob, x33149 or 488-7036.

Heatin & air conditioning system for home, 2.5 ton system, gas furnace,good cond, $475. 326-3130.

Sears .5 Hp garage door opener, hardware w/2 remotes, needs receiver logic board, $45; Applause 6 string acoustical guitar w/case, $120; Vortex XL diatomic aquarium filter, $50; car trunk mount bike rake, $10. 489-9312.

Roll top desk, $125; microwave, $70; gas-edger, $70; 2 weed eaters, $80. x33183.

Continental Airline travel voucher, $380 value will sell for $300. x31443 or 997-8044.

Boy's 16" Huffy "Mudslinger" H&P brakes, hot orange/black, ex cond; girl's 20" "Fun Style" H&P brakes, purple, ex cond; Power Wheels jeep w/2 sets of batteries & charger. James, 992-0202.

Wood lathe w/motor & stand, no tools, $85. 334-6515.

Four '89 Mustang wheels & caps, will fit other cars, ex cond, $225; TV portable stand $20; end table, walnut, 2 drawer, $20. 488-5564.

Yazoo 24" cut 5Hp commercial walk-behind mower, 20" rear wheel $400. x33213 or 966-8020.

Four '94 Isuzu PU factory wheels w/center caps and chrome trim rings, 14"x6", 6 hold bolt pattern, $65 for all. 538-1759.

Phase 1 Pioneering

As a small child, Shannon Lucid knew what she wanted to do when she grew up—she wanted to explore the Earth. She got her wish, but probably not from the vantage point she had originally expected. "When I was a little girl I was very interested in being a pioneer like in the American west, and I really liked those stories, but I thought 'well, I was born in the wrong time,'" she says. She turned her attention to exploration, but again thought the timing was off. "I thought well I can just be an explorer, but then I thought 'when I grow up all the Earth is going to be explored.' As fate would have it, when she was in the fourth and fifth grade, Lucid stumbled onto stories about Robert Goddard, the father of rocketry, and became fascinated with his work. That led to further interest in space and its frontier rather than the west. "I started reading about science fiction and I thought, 'well, that's what I can do when I grow up—I can grow up and explore space.'"

By Kyle Herring

Four space shuttle missions later, Astronaut Shannon Lucid, is poised to embark on an exploration beyond any she could have dreamed as a child.

Next week in the pre-dawn hours of March 21, she will start her fifth mission in space with a launch aboard *Atlantis* on the third flight to dock with Russia's Mir Space Station. Once docked, she will move into the station that she will call home for the next five months.

Lucid, along with Astronaut John Blaha, began this journey a year and a half ago when she volunteered to represent NASA and particularly the Astronaut Office by working on the Phase 1 project with Russia—the shuttle/Mir docking missions. It was then that Hoot Gibson, chief of the Astronaut Office at that time, called she and Blaha and told them they were headed to California for intensive language training. Lucid earlier had requested the assignment.

"I put down that my first choice was to be involved in the Phase 1 program and be a crew member on Mir," she says. "And frankly I was very surprised that something I volunteered for and wanted to do actually happened."

February 1995 saw the departure of Lucid and Blaha to Russia to join astronauts already training for Phase 1 missions. Norm Thagard was a month away from his launch aboard a Soyuz rocket for a near four-month stay before returning on the first shuttle/Mir docking mission—STS-71. His backup, Bonnie Dunbar trained along with him and flew on the shuttle mission that brought Thagard and his two cosmonaut crew mates home. "Both John and I are very appreciative of all the effort that Norm went to," she says. "He was a real pioneer."

One of Norm's suggestions was that anyone participating in long-duration spaceflights take advantage of their free time to relax. Lucid has chosen reading as her primary method of relaxation during her free time. Her reading material consists of a stock of books already delivered to Mir via the STS-74 mission. Lucid's family picked them and Shannon doesn't have any idea what's waiting for her when she arrives. She has been assured by the STS-74 crew that her supplies were delivered to the station.

While Blaha's wife Brenda accompanied him to Star City for his training, Lucid's family had to stay behind. They did visit during the holidays, however. Life at Star City has been different than here, she says, but quite rewarding.

She accepted the assignment enthusiastically and looked at it as a challenge. "I was real excited about doing it and I guess that was sort of my motivating factor as to why I wanted to do it. It was different and I thought it would be a very good opportunity to work in a different culture, meet new people and see how things were being done from a different perspective. It has been a very good year."

The biggest challenges, she says, is mastering the language and learning the cultural differences. "My going in position was that I was going to live like everybody there was living," Lucid says. "I didn't expect to have the western lifestyle that I have here in Clear Lake City and so everything worked out allright."

What does she think the biggest difference is between life in Star City and life here—other than language and weather? "You're not just two minutes away from the local grocery store where you can run in and pick up something if you forgot it, for instance. So there's a lot of time that you spend just doing your daily living things.

"My family came over for Christmas and my son was telling me what he wanted for supper one night, so I said okay I think we can manage that. So we went out to get the things and two hours later as we were going home he said 'that was a lot of work just to get enough food for one meal' and I said well, that's the way it is here."

While day-to-day life has been challenging, Lucid says her primary focus during the year has been learning the Russian language. "That seems to be what has taken all of our time. I don't think anybody has a concept of how difficult that is," she says.

The astronauts concentrate on their technical Russian to get through the training program, but also practice the conversational aspect of the language. "It's obvious that the five months we spend on Mir are not going to be spent sitting around talking about ways of producing oxygen," Lucid says. "We've tried to work on conversational Russian so we can talk about ordinary things with our crew while we're up there."

Lucid will have the unique position of being part of four different crews/missions on her flight. She will launch as a mission specialist on STS-76, become a cosmonaut researcher joining the Mir 21 crew—Commander Yuri Onufrienko and Flight Engineer Yuri Usachev launched in February, stay aboard Mir during a crew exchange with the Mir 22 crew—Commander Gennady Manakov, Flight Engineer Pavel Vinogradov and French Space Agency Researcher Claudie Andre-Deshays, and return home in August with the STS-79 crew of which her replacement, Blaha, will be a member.

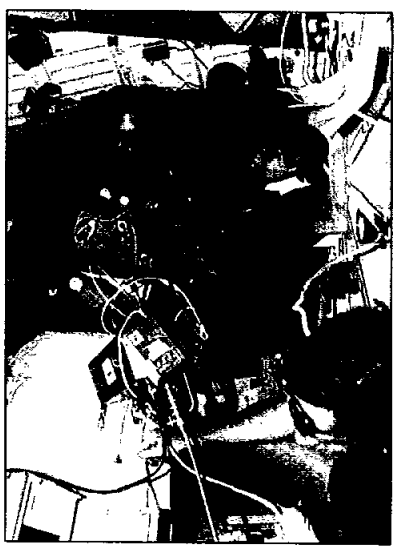
She's looking forward to seeing Onufrienko and Usachev again after *Atlantis* docks to Mir. Lucid trained for a year with them and then watching their Soyuz launch from Baikonur three weeks ago." When I was in Baikonur and we watched them launch, it felt a little strange to see them launch and not launch with them since we had been working as a team for awhile," she says.

Her hopes are that this mission and the American flights on Mir to follow, will prove valuable for future cooperative projects in space, including the International Space Station. "I hope that we will take the lessons that we learn and apply them to every incremental step toward the future."

If all stays on schedule, Lucid will continue her journey to explore space and the Earth with the same excitement she had as a youngster. Her vision has expanded, however, to explore beyond low Earth orbit and reach for other planets. In addition to everything else space station will offer, the pioneer/explorer in Lucid would like it to be a stepping stone to interplanetary travel. Next week the journey continues.

"That's what I can do when I grow up—I can grow up and explore space." ❑

(Editor's note: The Phase 1 series will continue in August with a profile of Astronaut John Blaha)



Top to bottom left to right: 1) Shannon Lucid participates in water survival training in a Soyuz capsule mockup at a lakeside training facility in Central Asia. 2) As a mission specialist on STS-43, Lucid checks samples of protein crystals on the middeck of *Atlantis* 3) From left, Astronaut John Blaha, Lucid and Mir 23 Commander Vasily Tsibliev talk with a reporter during a suited training session in Star City, Russia. Blaha will replace Lucid in August on the Russian Mir Space Station. Tsibliev will be launched in December along with a Russian flight engineer and a German researcher shortly after Blaha is replaced on Mir by Jerry Linenger 4) STS-43 Mission Specialist Lucid with Pilot Mike Baker monitor Mission Specialist David Low, left, in the Lower Body Negative Pressure suit. 5) From left, Blaha, Tsibliev and Lucid participate in training exercises at Star City. 6) STS-51G Mission Specialist Steve Nagel, left, works on the treadmill with the help of Commander Daniel Brandenstein, lower right, Pilot John Creighton and Mission Specialist Lucid.

NASA Photos

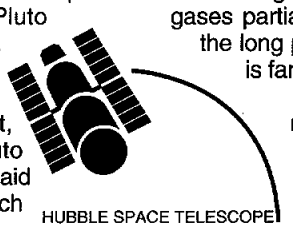
Hubble reveals surface of Pluto for first time

For the first time since Pluto's discovery 66 years ago, astronomers have at last directly seen details on the surface of the solar system's farthest planet from pictures sent by the European Space Agency's Faint Object Camera on NASA's Hubble Space Telescope.

Hubble's snapshots of nearly the entire surface of Pluto, taken as the planet rotated through a 6.4-day period, show that Pluto is a complex object, with more large-scale contrast than any planet, except Earth.

The images also reveal almost a dozen distinctive albedo features, or provinces, none of which have ever been seen before. They include a "ragged" northern polar cap bisected by a dark strip, a bright spot seen rotating with the planet, a cluster of dark spots and a bright linear marking that is intriguing the scientific team analyzing the images. The images confirm the presence of icy-bright polar cap features, which had been inferred from indirect evidence for surface markings in the 1980s.

This historic new look at Pluto helps pave the way for a proposed Pluto flyby mission in the next century. Pluto is the only solar system planet not yet visited.


HUBBLE SPACE TELESCOPE

"Hubble is providing the first, tantalizing glimpse of what Pluto will be like when we get there," said Alan Stern of Southwest Research Institute's Boulder, Colo.

Some of the sharp variations across Pluto's surface detected in the Hubble images may potentially be caused by such topographic features as basins, and fresh impact craters However, most of the surface features unveiled by Hubble are likely produced by the complex distribution of frosts that migrate across Pluto's surface with its orbital and seasonal cycles. Pluto is so far from the Sun that even nitrogen, carbon monoxide and methane gases partially freeze onto its surface during the long period—about 100 years—when it is farthest from the Sun.

The Hubble images reveal much more surface variety on Pluto than on other icy objects in the outer solar system, including Pluto's often-cited twin, Neptune's large moon Triton. Scientists are confirming Pluto isn't a twin of Triton after all.

During the short, warm season around Pluto's closest approach to the Sun, these ices sublimate—go directly back to a gas—thickening Pluto's atmosphere.

"The light areas are as bright as fresh Colorado snow, and the darker areas are more reminiscent of the brightness of a dirty snow," said Stern.

The darkest regions likely result from hydrocarbon "residues" from the effects of ultraviolet sunlight and cosmic rays on Pluto's complex chemical melange of surface ices.

Pluto is two-thirds the size of Earth's Moon, and 1,200 times farther away. Pluto's apparent size in the sky is so small that 18,000 Plutos would need to be lined up to match the diameter of the full Moon. This puts Pluto's surface below the resolution limit of the largest ground-based telescopes; as a result it has been impossible to directly see any significant detail on Pluto before these Hubble observations. Images of Pluto can be seen on the Internet at: http://www.hq.nasa.gov/office/pao/NewsRoom/today.html

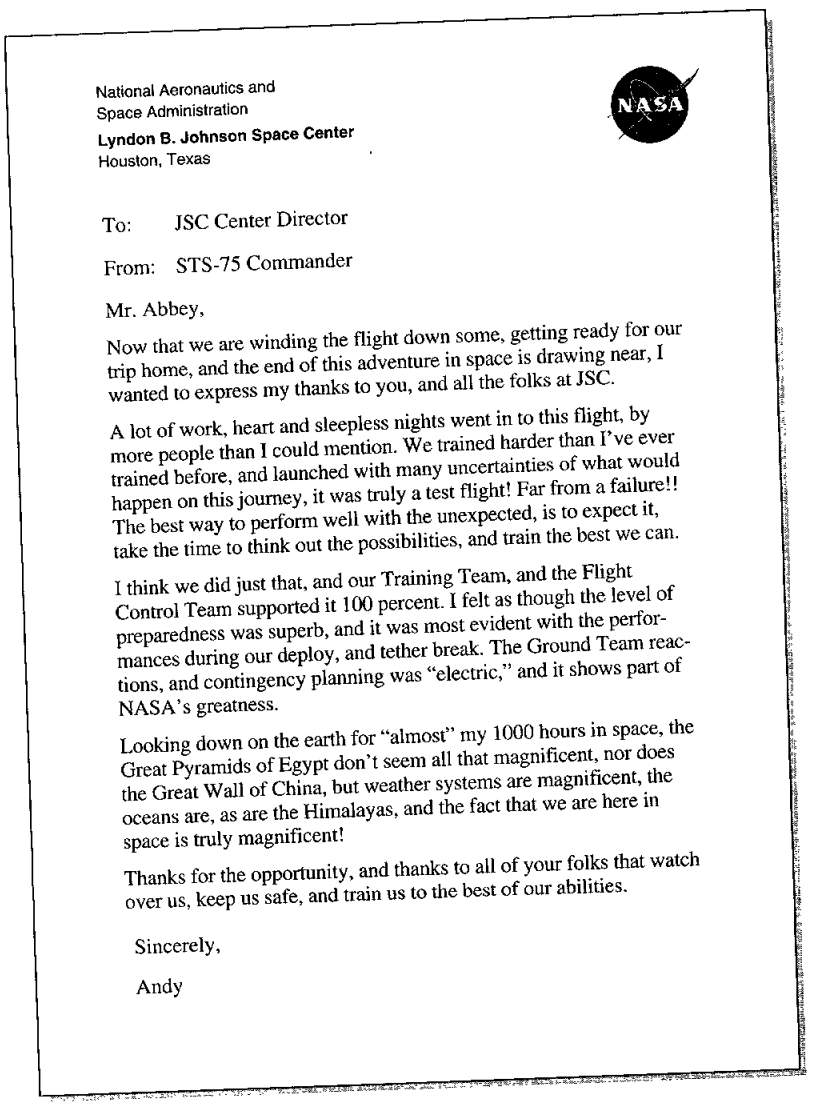
STS-75 crew shares flight memories

The STS-75 astronauts will share flight memories with employees and receive their space flight medals at 3 p.m. March 25 in Teague Auditorium.

Commander Andy Allen, Pilot Scott Horowitz, Mission Specialists Jeff Hoffman, Maurizio Cheli, Claude Nicollier and Franklin Chang-Diaz and Payload Specialist Umberto Guidoni will discuss scientific investigations performed during their 15-day mission in low Earth orbit.

The crew conducted a variety of experiments in the United States Microgravity Payload collecting more than their anticipated data on fire-related phenomena and materials processing, and the Tethered Satellite team gained knowledge to shape the future of tethered satellites in space.

The astronauts also will receive their space flight medals in recognition of their courage, dedication, professional skills and for being pioneers who have widened the world's understanding and mastery of the new ocean of space. Later that same week, the crew will discuss their mission with the public at noon March 29 at Space Center Houston.



National Aeronautics and Space Administration
Lyndon B. Johnson Space Center
Houston, Texas

To: JSC Center Director

From: STS-75 Commander

Mr. Abbey,

Now that we are winding the flight down some, getting ready for our trip home, and the end of this adventure in space is drawing near, I wanted to express my thanks to you, and all the folks at JSC.

A lot of work, heart and sleepless nights went in to this flight, by more people than I could mention. We trained harder than I've ever trained before, and launched with many uncertainties of what would happen on this journey, it was truly a test flight! Far from a failure!! The best way to perform well with the unexpected, is to expect it, take the time to think out the possibilities, and train the best we can.

I think we did just that, and our Training Team, and the Flight Control Team supported it 100 percent. I felt as though the level of preparedness was superb, and it was most evident with the performances during our deploy, and tether break. The Ground Team reactions, and contingency planning was "electric," and it shows part of NASA's greatness.

Looking down on the earth for "almost" my 1000 hours in space, the Great Pyramids of Egypt don't seem all that magnificent, nor does the Great Wall of China, but weather systems are magnificent, the oceans are, as are the Himalayas, and the fact that we are here in space is truly magnificent!

Thanks for the opportunity, and thanks to all of your folks that watch over us, keep us safe, and train us to the best of our abilities.

Sincerely,

Andy

Experts to discuss new laser eye surgery Monday

In response to questions from JSC employees concerning the current techniques available to correct vision, the Total Health Program will present a Lunch 'n Learn seminar to discuss PRK or Photorefractive Keratectomy, sometimes known as Laser Vision correction.

"PRK Laser Vision Correction" will be held from 11:30 a.m.-12:30 p.m. Monday in the Bldg. 30 Auditorium. Experts, Bernard Milstein, Allan Fradkin and Daniel Gold, from the Eye Clinic of Texas will be on hand to discuss PRK as well as RK nearsightedness correction. The physicians will remain in the Bldg. 30 auditorium until 2:30 p.m.

"This will give employees who could not attend the seminar the opportunity to stop by to speak with the experts," said Lynn Hogan, chief nurse in the JSC Clinic. "Any employee is welcome to bring their glasses or contact lens prescription with them. The prescription can be analyzed to determine whether this procedure would be of benefit to the employee."

PRK is a process by which a concentrated beam of ultra-violet light emitted from an Excimer laser gently reshapes the cornea so that light rays focus the way they should, directly on the retina. By changing the shape of the cornea it is possible to change the way a person sees.

This is a state of the art procedure to correct nearsightedness using a computerized laser. The aim is to reduce or eliminate the need for glasses and contact lenses.

PRK is different form RK or radial keratotomy because it uses a computerized cool beam Excimer laser to gently re-shape the cornea. There are no incisions made with PRK and because the amount of tissue to be removed is directed by a computer, it is considered to be an extremely precise procedure.

RK uses a diamond dipped knife to cut a series if incisions into the cornea. By making the incisions in a radial or "pinwheel" shape, the surface of the cornea is flattened.

For more information on PRK or the seminar, call the Clinic at x34111.

Employees report to work Monday

The continuing resolution that has kept NASA's doors open since early January will expire at midnight today.

News stories have reported conflicting messages regarding the likelihood of new legislation to keep the government operating. In light of this uncertainty, JSC is again planning for the possibility of a partial government shutdown. Employees are reminded that no matter what happens, they are expected to report to work Monday morning. If, at that point, no CR has been passed, the center will then begin an orderly shutdown.

The Human Resources office is currently working with organizations to update lists identifying employees who will be required to work if a furlough occurs. Employees who are exempt are those necessary to ensure the safety and security of life and property, perform essential contract management and to maintain the shuttle manifest and space station critical milestones.

Employees are encouraged to follow news media reports on the status of NASA's budget legislation. In addition, before close of business today, all employees are asked to provide their supervisors with a telephone number or other means by which they can be reached. Employees can also get the latest details by calling the Employee Information Service at x36765.

STS-75 crew laud international effort

(Continued from Page 1)

go and make this program go and make it the success that it is," Horowitz said. "I would like to thank everyone for the incredible, incredible adventure that we were on."

Nicollier reflected on the scientific experiments and the vast cooperative effort.

"We have added seven members to the brotherhood of cosmic pyromaniacs, because of the experiments in the Glovebox," Nicollier said. "I would like to thank NASA and the European Space Agency for letting me do this. I would like to thank the Italian Space Agency for letting a non-Italian, non-American handle a joint program between Italy and the U. S. I feel very privileged."

Guidoni praised the efforts of JSC, Marshall Space Flight Center, Kennedy Space Center and agencies in Italy.

"I bring with me the memory of a fantastic journey in space," Guidoni said. "This mission would not have been possible without the joint effort of hundreds of people."

Cheli also praised his crew mates.

"As a rookie or a first time flyer I could not have chosen a better flight and this mission, which was characterized by its multi-disiplanary science investigations and challenging flight operations," Cheli said.

Hoffman was proud to have taken part in something that had never before been accomplished.

"We set out to take a giant leap and in the end maybe we just took a big step but it was a big step and an important one," Hoffman said. "It makes me proud to know that at least we had the guts to try to do something that was hard, because that's what this program has been all about ever since President Kennedy reminded us that we were going to the Moon not because it was easy but because it was hard. If we ever lose the will and the ability to try to do hard things just because we don't know if they are going to work then we've forgotten what the program is all about."

Chang-Diaz heralded the success of science data collection.

"This mission was a scientific success," Chang-Diaz said. "We have some engineering things to do to perfect the techniques of tether operations but in fact the science of the mission was amply proven and we returned home with a virtual bounty of scientific data to share with all of the people of the world."

PMA luncheon series continues

The NASA/Houston Chapter of the Performance Management Association is conducting its fifth and final luncheon meeting on the implementation of Earned Value Management Systems at JSC.

The meeting will begin at 11:15 a.m. March 28 at the Ramada Inn on NASA Road 1.

The focus for this meeting will be to inform the audience on various commercial products available for Earned Value/Performance Management Systems. The meeting will include vendor demonstrations from C/S Solutions, CSC Artemis, Welcom, Mantix, and Microframe Technologies.

Tickets cost $12 and include lunch. Reservations are due March 22.

For more information call to Susan Widmer at x34299 or e-mail at Widmer@GP905.jsc.nasa.gov

Pilots offer variety of experience

(Continued from Page 1)

Cagle's has logged many hours in the air providing medical support and rescue in aeromedical missions. While assigned as a rated flight surgeon, she was deployed to Saudi Arabia during Desert Shield. Cagle also has serve as Air Force medical liaison officer for STS-30, and currently practices as an occupational physician at the JSC Clinic. She is a member of the NASA working group to establish international medical standards and procedures for astronauts.

Wells was accepted into the third class of women Air Force pilot training. She flew the WC-130 "Typhoon Chaser" while assigned to the 54th Weather Reconnaissance Squadron in Guam and was called up for Desert Storm, during which time she amassed more than 600 hours of flying. In her assignment as a NASA staff pilot, she has served as pilot of T-38's, Gulfstream G-I, the KC-135 and as program manager for the mission specialist training airplane.

Collins served as pilot on STS-63, the first flight of the joint Russian-American program. She was the first woman pilot of a space shuttle.

These panel members will share their unique experiences as well as women's involvement in flight. All JSC employees are invited to attend. The meal is $8.50 per person. Tickets must be purchased in advance and will be available on March 18.

For more information, contact Jessie Hendrick at x31203.

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.

Editor .....Kelly Humphries
Managing Editor .....Karen Schmidt

Correction

In the March 8 issue of the Space News Roundup, STS-76 crew members were incorrectly identified. At left is, Pilot Rick Searfoss and assisting the STS-76 crew is Astronaut Marsha Ivins, right.

Volunteers sought for bone research

The Medical Sciences Division in the Space and Life Sciences Directorate has teamed up with Baylor College of Medicine to evaluate new techniques to measure bone quality and is seeking volunteers to participate in the study.

"This study will help develop new techniques that will enable the astronauts living and working on the International Space Station determine how their bone quality may be changing in low-Earth orbit," said Jerry Homick, deputy chief of the Medical Sciences Division.

Men and women ranging in age from 30 to 80 years of age are being sought to help evaluate new ultrasound and low-frequency vibration techniques that measure bone quality. Several non-invasive tests will be performed and compared with standard bone mineral density testing.

Subjects will be asked to fill out an information sheet and sign a consent form prior to being enrolled. If chosen to participate in this study, volunteers will receive a free copy of their bone mineral density results.

Employees interested in volunteering or for more information, call 793-1131 or e-mail tonir@bcm.tmc.edu