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

## Olympic journey

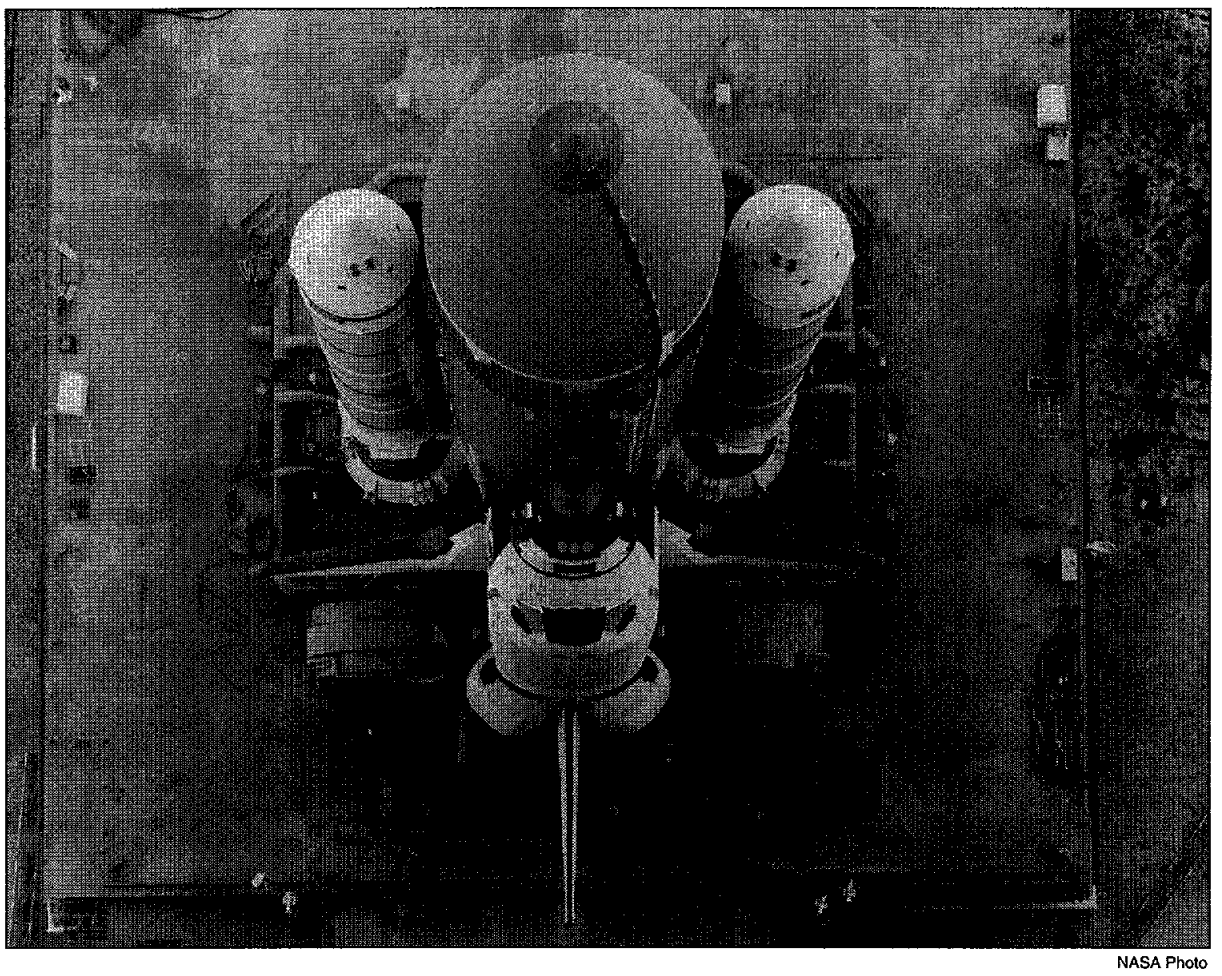
JSC quality engineer reflects on his opportunity to judge Olympic games in Atlanta. Story on Page 3.

## Mars bound

Two Mars spacecraft arrive at Kennedy Space Center to begin preparations for fall launch. Story on Page 4.

# Space News Roundup

Vol. 35 August 30, 1996 No. 34



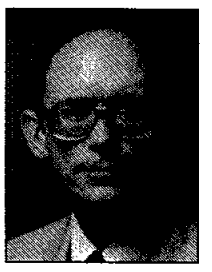
NASA Photo

***Atlantis* begins the journey back to Launch Pad 39A from the Vehicle Assembly Bldg. at Kennedy Space Center after receiving new solid rocket boosters. The STS-79 crew climbed aboard the orbiter this week for a dress rehearsal of the launch set for mid September.**

*Harlan to head center focus*

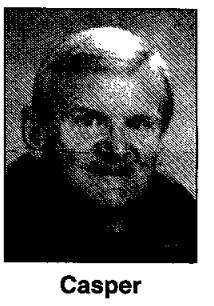
# New ISO 9000 office to assist quality transition

JSC is establishing a new center-level organization—the ISO 9000 Project Office—to bring a top-level focus to the center's effort to become certified to the International Organization for Standardization 9000 family of standards.



Harlan

"The new ISO 9000 Project Office will be responsible for managing JSC's transition from our current NASA Quality Management System to the internationally recognized ISO 9000 standards," said JSC Director George Abbey. "This transition will include imposing ISO 9000 requirements on JSC contracts, as well as in-house JSC organizations. While JSC has already begun the process to register its current Quality Management System to the ISO 9000 standards, the new ISO 9000 Project Office will be responsible for managing the complex certification process, working with JSC organizations to ensure a smooth transition to ISO 9000 and evaluating the effectiveness of the implementation program."



Casper

Charlie Harlan has been selected to serve as acting director of the ISO 9000 Project Office. In this capacity, he will report directly to the JSC director. Most recently, Harlan served as director of the Safety, Reliability, and Quality Assurance Office.

"JSC has been a leader in NASA in the transition to ISO-9000," Harlan said. "We are now completing a significant pilot project with the Engineering Directorate which will form a template for the implementation of the ISO-9001 Quality Management System for the whole center. We are planning for third party certification in approximately one year, which is a challenging and aggressive schedule. This project will take a lot of hard work on the part of all center organizations, but the payoff to NASA will result in higher quality work, a reduction in nonconformances and reduced cost of doing business."

John Casper becomes acting director of Safety, Reliability, and Quality Assurance. In his new role, Casper will be responsible for managing and directing the institutional and programmatic safety, reliability and quality assurance programs for the center. Richard Dinkel will assist Casper as acting deputy director, and Gary Johnson will be assigned as acting deputy director for Russian Projects, SR&QA, pending Headquarters' approval.

# *Atlantis* launch rehearsal goes well

## Shuttle managers keeping close eye on Hurricane Eduoard

A successful dress rehearsal for launch this week at Kennedy Space Center brought *Atlantis*' astronauts one step closer to liftoff next month on STS-79, the fourth shuttle-Mir docking mission to Russian's space station.

Commander Bill Readdy, Pilot Terry Wilcutt and Mission Specialists Jay Apt, Tom Akers, Carl Walz and John Blaha climbed aboard *Atlantis* on Wednesday for the final hours of a simulated countdown and engine firing, similar to what they will experience on a nine-day flight highlighted by the delivery of Blaha aboard Mir for the start of his four and a half month research flight.

Blaha will be replacing U.S. astronaut Shannon Lucid, who has now been in space 161 days, just eight days shy of breaking the all-time record for a single space flight by a woman. The record is currently held by Russian cosmonaut Elena Kondakova, who is now at the JSC training as a member of the STS-84 crew, which will be launched to Mir next May.

The countdown dress rehearsal took place as NASA managers gathered at KSC for the Flight Readiness Review for *Atlantis*' launch. NASA officials had been

Please see **BLAHA**, Page 4

# Mir 21 crew prepares to say farewell to Lucid

The Mir 21 crew is wrapping up the remainder of its work in preparation for the trip back to Earth as the Mir 22 crew begins its program aboard the Russian space station.

Cosmonaut Researcher Shannon Lucid spent the week preparing for the end of her stay and arrival of *Atlantis* with her replacement—Astronaut John Blaha—packing up data and equipment for the return to Earth.

Included in the return experiments are some results from Lucid's latest experiment, the Greenhouse experiment. This week, Lucid harvested some of the dwarf wheat she had planted in early August as part of the experiment intended to look at how plants, which one day could play an important role in advanced life support systems on future spacecraft, grow in a weightless environment.

"I harvested a couple of the plants and put them in preservatives and they'll be ready to come back home," Lucid said. "When John gets here, then he will also harvest the plants because they will continue growing and, hopefully, these wheat plants will be able to grow to the point where they will make seeds. So we'll start from a seed and go to a seed."


Periodically, Lucid has preserved sample plants for later study on Earth, although some plants may grow for as long as three months.

To prepare for experiments to be performed by Blaha, Lucid is conducting tests of the Biotechnology System in the Priroda module. The facility is reported to be in good condition and will be used for a variety of long-term experiments beginning with tissue culture growth in a Bioreactor during Blaha's stay on Mir.

Lucid said she and Mir 22 cosmonauts, Commander Valery Korzun and Flight Engineer Alexander Kaleri, are confident that they will work well together with Blaha for another successful Mir mission.

"I think Korzun and Kaleri are going to get along fine with John," Lucid said in an interview Monday. "John is a versatile person and he can get along with just about anybody, and Korzun and Kaleri can get along with just about anybody, so I think it will work out just fine."

"We lived with Blaha for some time together and we had the opportunity to work together quite a bit," Korzun said. "We know each other fairly well as colleagues, as friends, and I think that his presence on board Mir—the presence of an astronaut such as Blaha—will be very beneficial. We will work with him with great pleasure in fulfilling the program and I don't see any problems in our joint work."

Lucid said the most practical help she can give Blaha is to take a couple of hours to give him a guided tour of the station, showing him where everything is located. And her best advice: "just go with the flow."

Lucid admits that what she will miss most upon her return is working in the laboratory.

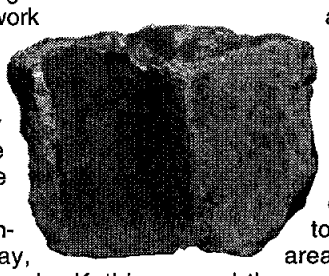
"I will miss not getting to work in a laboratory every day," Lucid said. "Its really been a lot of fun to more or less have my own laboratory that I was in charge of in making decisions, and just working in a lab everyday."

Please see **LUCID**, Page 4

# Was there ever life on Mars?

JSC meteorite researchers think they have the answer.

The JSC family will get a chance to see first-hand the work fellow employees are doing with Mars meteorites and hear about their discovery of evidence that the Red Planet was once home to primitive life.



JSC planetary scientists David McKay, Everett Gibson, and Kathie Thomas-Keprta of Lockheed-Martin will discuss their work, with fellow JSC employees in Teague auditorium at 2 p.m. Sept. 5. Following the 45-minute presentation there will be a 15-minute question and answer session.

Employees, off-site contractors, family and friends are invited to attend the briefing. Unbadged visitors will be allowed on-site and directed to designated parking areas when they tell the guard they are here for the "Mars briefing." Visitors are encouraged to use JSC gate 2 in front of Bldg. 1 off NASA Road 1.

JSC Photo by Robert Markowitz

**From left, Kathie Thomas-Keprta of Lockheed-Martin, David McKay and Everett Gibson discuss findings of their recent research on the Mars meteorite using the scanning electron microscope.**

## *JSC home page acquires new look*

The world's Internet window on JSC is sporting a new set of draperies designed to help the center's external customers find what they're looking for quickly and easily.

The new JSC Web, or home page, remains at http://www.jsc.nasa.gov—the standard address established for each NASA center by the agency's Chief Information Office—but the site's organization has changed significantly. The new top-level links ask visitors who they are. Primary links go to sections for the public, children, educators, the

Please see **JSC**, 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.

**"Ceremonies in Dark Old Men"**: Drama at 8 p.m. Oct. 5 at the Mid Town Art Center. Tickets are on sale until Sept. 13 and cost $15.

**EAA Belize Resort Trip**: Available Sept. 1-Dec. 15, $472 double occupancy, $100 deposit required, final payment due 30 days before departure.

**EAA Caribbean Getaway Cruise to Puerto Rico**: Jan. 3-13, $1198 double occupancy with airfare, $999 cruise only, deposit due by Sept. 5, final payment due Nov. 4.

**Sam Houston Race Park Track Pack**: $10 value pack for $5.25, includes Club Level seating, program, tip sheet, admission, preferred parking and gift shop discount.

**Splashtown**: One day pass cost $14.25.

**Schlitterbahn**: One day pass cost $19.75 for adults, $16.95 for children.

**Astroworld**: One day pass cost $22.75, two day pass cost $34.25.

**Fiesta Texas**: One day pass cost $22.75, two day pass cost $34.25.

**Six Flags at Arlington**: One day pass cost $22.75, two day pass cost $34.25.

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

**Space Center Houston**: Discount tickets, adult, $8.75; children (4-11), $6.25, annual membership, $22.95, family membership, $59.95.

**Movie discounts**: General Cinema, $4.75; AMC Theater, $4.50; Sony Loew's Theater, $4.75.

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

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

**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 7:30 a.m.-9 p.m. Monday-Friday; and 8 a.m.-4 p.m. Saturdays.Cost is $5. Dependents must be between 16 and 23 years old.

**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.

**Women's self defense**: Martial Arts training for women only from 5-6 p.m. Tuesdays and Wednesdays. Cost is $35 a month.

**Weight safety**: Required courses for employees wishing to use the weight room is offered from 8-9:30 p.m. Sept. 12. Pre-registration is required. Cost is $5.

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

**Aikido**: Martial arts class meets from 6:15-7:15 p.m. Tuesday and Wednesday. Cost is $35 per month. New classes begin the first of each month.

**Aerobics**: Classes meet every Monday, Tuesday and Thursday.

**Ballroom dancing**: Cost is $60 per couple. For additional 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.

**Leagues**: Registration for basketball, flag football, volleyball and soccer leagues will be Aug. 19-30. Call the Gilruth for registration information.

JSC

# Dates & Data

## Today

**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.

## Monday

**Labor Day**: Most JSC offices will be closed in observance of the Labor Day holiday.

## Tuesday

**ASQC meets**: The Bay Area Section of the American Society for Quality Control will meet at 5:15 p.m. Sept. 3 at the Ramada King's Inn, Ballroom, 1301 NASA Road 1. Gary Hatfield and Art Orscheln will discuss "Professional Development Through ASQC Certification." Dinner cost $9. For more information call Ray Swindle at 335-6948.

**ABWA meets**: The American Business Women's Association, Clear Lake Area Chapte,r will meet at 5:30 p.m. Sept. 3 Bay Oaks Country Club. For more information call Kathleen Kaminski at x38706.

**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

**Toastmasters meet**: The Spaceland Toastmasters will meet at 7 a.m. Sept. 4 at the House of Prayer Lutheran Church. For more information call Jeannette Kirinich x45752.

**Astronomy seminar**: The JSC Astronomy Seminar will meet at noon Sept. 4 in Bldg. 31, Rm. 129. An open discussion meeting is planned. For more information call Al Jackson at x35037.

**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

**Warning system test**: The sitewide Employee Warning System will undergo its monthly audio test at noon Sept. 5. For more information call Bob Gaffney at x34249.

**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.

## Sept. 9

**Running club meets**: The Bay Area Running Club will meet at 6:30 p.m. Sept. 9 at Challenger Park for a three-mile run, followed by a meeting at 7:30 p.m. Sherry Granader of World's Gym will discuss nutrition and healthy eating. For more information call Mark Anderson at x30909.

## Sept. 10

**BAAC meets**: The Bay Area Aero Club will meet at 7 p.m. Sept. 10 at the Houston Gulf Airport in League City. For more information call Jerry Adair at x38058.

## Sept. 11

**MAES meets**: The Society of Mexican American Engineers and Scientists will meet at 11:30 a.m. Sept. 11 in the Bldg. 3 Cafeteria executive dining room. For details call Michael Ruiz at x38169.

## Sept. 12

**Airplane club meets**: The Radio Control Airplane Club will meet at 7:30 p.m. Sept. 12 at the Clear Lake Park Community Bldg. For details call Bill Langdoc at x35970.

## Sept. 13

**Astronomers meet**: The JSC Astronomical Society will meet at 7:30 p.m. Sept. 13 at the Lunar & Planetary Institute, 3600 Bay Area Blvd. For more information call Chuck Shaw at x35416.

## Sept. 18

**Scuba club meets**: The Lunarfins will meet at 7:30 p.m. Sept. 18 at Redfish Restaurant under the Kemah/Seabrook Bridge, Seabrook Side. For more information call Fred Toole at x33201.

## Sept. 19

**Directors meet**: The Space Family Education board of Directors will meet at 11:30 a.m. Sept. 19 in Bldg. 45 Rm. 712D. For more information on this open meeting call Gretchen Thomas at x37664.

## Sept. 26

**Radio club meets**: The JSC Amateur Radio Club will meet at noon Sept. 26 in Bldg. 16, Rm. 253. The meeting will include officer elections. For more information call Larry Dietrich x39198.

JSC

# Swap Shop

## Property

Sale/Trade: Wooded lot, .5 acre at Sam Rayburn Lake; 2 lots at Lake Livingston. Dave, Ayoub, x37756.

Sale: Canyon Lake, 3-2, FPL, 1200' deck, gazebo, 1800', $124k. 210-899-3447 or 520-1777.

Sale: Baywind II condo, 2-2, FPL, wetbar, new A/C & refrigerator, recently remodeled, $34.9k. 338-2446.

Lease: League City, 3-1.5-2, brick, fenced yd, $550/mo + dept. Ken Jenks, x34368 or 280-0802, Keith Brown, x38952.

Sale: Friendswood, 3-2-2, lg family room, formal dining, high ceilings, FPL, updated flooring, new appli, fresh paint inside/out, by appointment. 992-0450.

Sale: Heritage Park, 3-2-2, brick 2-story, by owner, below appraised value, $77.5k. 482-8845.

Sale: League City, 3-2-2D, brick, lg FRM, newly painted, ~2100', $80k. 480-6275 or 554-5261.

Wooded lot 90' x 135', Taylor Lake Estates, must sell, $39.5k obo. Don, x38039 or 333-1751.

Lease: CLC Baywind II, 1BDR condo, kit appli's, A/C&H, W/D, FPL, no pets, $395 mo. 488-5019.

Sale: Sycamore Valley, 3-2.5-2, 2 story, completely remodeled, $87.k. 488-0664.

Sale/Lease Purchase: Brook Forest, 4-2-2, 2348 sq ft, new carpet/tile/kitchen, atrium. Brian, 480-4351.

Lease: Sageglen subdiv, 3-2.5-2, 2400 sq ft, roomy & nice, $895 mo. Theresa, 244-5089 or 480-6980.

Lease: Clear Lake Oakbrook, 4-2.5-2, FRM, kitchen, fenced, no smokers or pets. Jack H. Cohen, 488-3171.

Rent: Clear Lake Shores, 2-1, cov'd porch, waterfront community, $700 mo. Bill, x33137 or 334-2533.

Sale: Lake Conroe waterfront campgrounds, pool, dock, exclusive membership, $975. 326-5150.

## Cars & Trucks

'91 Honda CRX Si, white w/blk inter, sunroof, new clutch/battery, 5 spd, AM/FM/cass A/C, runs great, 78k mi, $6.4k. 331-8521.

'93 Cavalier convertible, V6, low mi, 1 owner, $11.5k. 992-5859.

'88 Pontiac Grand Prix, V6, new transmission, runs good, $2.5k. 992-5859.

'92 Subaru Legacy, auto, A/C, pwr, AM/FM/cass, below 50k mi, $6.9k. 333-4609.

'87 Chevy Cavalier, auto, A/C, AM/FM/cass, 4 cyl, runs great, $1.9k. Richard, x31440 or 333-5693.

'85 S-10 Chevy Blazer, A/C, new timing chain, waterpump, 153k mi, runs good, $2k obo. 486-0177.

'90 1/2 ton Chevy Sportside, Silverado pkg, blk, A/C, PS/PB, AM/FM/cass, 5 spd OD, $7.5k. 338-9754.

'95 Ford Windstar van, 19k mi, blue, V6, A/C, P/W, P/L, cruise, loaded, $16.9k. x33142 or 334-3205.

'95 Chevy Blazer, 4 dr, auto, A/C, P/S & P/B, AM/FM/cass, teal/silver, ex cond, 30k mi, $19k. 996-8773.

'95 Isuzu Rodeo, 20k mi, white, CD/radio, $16.5k. Dan, x33003.

'88 Chrysler, LeBaron Town & Country, white, 4 dr, pwr, new tires, good cond, $2.5k obo. 992-7507.

'83 Dodge RAM van, full sz, custom inter, dependable, no A/C, $1.4k. Ken, x31496 or 286-7583.

'89 Pontiac LeMans, 2dr, 5 spd, silver, A/C, 82k mi, AM/FM/cass, $1.9k. Joe, x38851 or 488-1750.

'76 F-100 pickup, good work truck, $950. x31883.

'80 VW camper, new tires/brakes, stove & icebox, A/C, good cond, rebuilt VW motor. 470-9322.

'93 Chevy Sierra C-1500, ext cab, bed w/liner, V8, P/S, P/B, cruise, A/C. Les, x30090 or 331-5951.

'92 Nissan kingcab, auto, A/C, P/S, P/B, cass, bucket seats, bedliner, 82k mi, $7,250. 332-2039.

'89 Pontiac Sunbird, 4 dr, auto, A/C, new tires, ex cond, $2,795 obo. Ayub Khan, x39199.

'76 Apollo, 30' motorhome, rebuilt eng, lg BDR, kitchen, good tires, ex cond, $11.5k. Jerry, 458-0027.

'91 Chevy Beretta, blue, low mi, 3.1 V6, air bag, ex cond, $6.8k obo. Dan, x34640 or 482-7550.

'85 Nissan Sentra, 2 dr, 5 spd, A/C, AM/FM/cass, 1 owner, ex cond, $2k. Eric, x31917.

'90 Pontiac Grand AM, Quad 4, 4 dr DE, white w/blue inter, cass, cruise, P/W & P/L, $5k obo. Janet, 993-9325 or 850-0249.

'94 Sentra, 5 spd, A/C, stereo, 40k mi, 1 owner, ex cond, $7.2k. Paul, x47182 or 335-7141.

'87 Dodge Grand Caravan SE, P/W & P/L, A/C, V6, AM/FM/cass, ex cond, 97k mi, $4,250. Dave, x32066 or Jim, 486-5052.

'90 Ford Bronco, new tires/brakes/muffler/tailpipe, new starter/alter/drive shaft, 77k mi, $13k. 337-2387.

'63 Ford Falcon, rebuilt eng, new seatcover/headliner, nice inter, new brakes/clutch/whl bearings, trim complete, $2k obo. 480-2072.

'91 Geo Metro, red, 4 dr, A/C, AM/FM/cass, radio, 5 spd, $3k obo. 484-3357.

'91 BMW 318IS, blue/blk inter, 94k mi, ex cond, $8k obo. Alan, 334-2810 or 282-3398.

'89 Eagle Premier, ex cond, leather inter, loaded, P/W & P/L, $3.2k firm. 332-8468 or 482-9177.

'94 Honda Passport LX, 4x4, V6, auto, tinted, A/C, 23k mi, ex cond, $18k. 334-3941.

'78 Buick Riviera, silver/blk w/leather, inter, 403 V8, $800. x35180 or 326-3706.

'50 Chevrolet 3/4 ton, truck, $2.2k. 286-5971.

## Boats/Planes

'88 Sea Ray Seville, 18ft bowrider, 130 hp I/O, pwr trim/tilt, P/S, steel spd prop, swim platforms, bimini top, AM/FM, galv trlr, 1 owner, ex cond, skis, tow rope, coast guard vest, $7.5k. x48959 or 532-1673.

Aluminum boat, semi-v w/motor & trailer, extras, rigged for fishing, $750 obo. x36563 or 338-1249.

## Audio Visual & Computers

Mac Quadra, 640 DOS compat, 16Mb RAM on Macside, 4Mb on 486-66 card inside Mac, MS-Word, Excel/Powerpoint, kybd, mouse, CD-ROM, 500Mb HD, $900; Power Mac 9500, 120 MHz,16Mb, 1 Gb HD, fpu, 24 bit color video card, CD-ROM, 6 PC I slots, upgradeable, $2.9k. 244-2444 or 488-4382.

Compaq Deskpro/i 486 4Mb RAM/240 Mb HD w/many interface cards, screen & kybd, $750. x32920; Compaq Prosignia PC server 486/66 12Mb RAM & 240 Mb HD w/kybd, $1.4k. x32920.

BSR loudspeaker system, 15" 3-way 5 speaker, $150. 286-6894.

386DX40, 4Mb RAM, 170Mb HD, 3.5 & 5.25 FD's, mouse, 14" SVGA monitor, $350; 486DX2-66, 8Mb RAM, 420 Mb HD, 3.5" & 5.25" FD's, mouse, 15" SVGA monitor, $600; 14" SVGA monitor, $85; 15" SVGA monitor, $125. Charles, x36422 or 326-5073.

Bang & Olufson Beovox 5700 audio spkr cabinets, rosewood veneer, 3-way crossover, dome tweeter, dome midrange, 10" bass & 10" passive bass radiator, $125 pr; speaker stands, $25 pr. 480-8416.

Fender Blues DeVille amp, org tubes, 60W, $475; Alexis Midiverb III, $175; Yamaha Classical guitar, $225; Shure microphone w/cables, $80, all in ex cond. Chuck, x45093.

Mac Performa 450, 25 MHz 4Mb RAM, 512Mb HD, 14" color monitor, kybd, 1.4 Mb FD, documentation, ex cond, $600. 244-1791 or 488-1326.

Bel Quantum 3SE 3 band radar detector & Audiovox car phone, model SP85, $25 ea. 332-2039.

Pentiums 100/120/133MHz, 16Mb, 1.6 Gb HD, 6X CD MultiMedia, 14" 28 SVGA monitor, floppy, kybd, $1095/1225/1350. Ayub Khan, x39199.

IBM PC A/XT clone, 640k RAM, 4Mb HD, 2-5.25" DS DD floppies, needs mon, $90; printer, Panasonic KX-P1080i, $45, both ex cond. 482-7937.

Casio color pwr graphic CFX 9800 GW color graphing calculator, for advanced math, icon driven menu, best offer. Allison, x30371 or 286-9820.

Apple Stylewriter 2400 color printer, ex cond, $280; Macintosh 15" color mon, $375; Bi-level desk $75. x31754 or 486-4273.

Cellular phone NEC w/case & charger, $40. Mike, 797-0525.

Two Zenith 3000 stereo speakers, x34132 or 474-2383.

Lapis ProColor server 24X color graphics card for Mac SE/30, $200; Cordura carrying case for Mac SE/30. $40. 480-3424.

Atari 1040-ST w/1Mb RAM, HD needs work, Macintosh ROMs Spectre CGR, $300 obo. Marvin, 482-7836.

Portable HD w/batt, $350; 1 Gb SCSI HD, $150; PLI 40 Turbo 44Mb cart player, $150; 21 44Mb card, $20 ea; Fujitsu ScanPartner hi spd scanner, $900. x32920.

Stylewriter, printer, ex cond, $65. 326-5150.

## Musical Instruments

Mapex dbl Bass, 9 pc kit, Zildjan cymbals, stands, throne, silencers, black. Mark, x38211 or 332-6527.

Piano, $350. 992-7507.

Applause acoustic guitar, $125; Applause acoustic guitar w/pickup, $175. 282-9522.

King trombone, ex cond for beginner band, $175. 337-2387.

King slide trombone, $200 obo. x33137 or 334-2533.

## Pets & Livestock

Free loveable, slightly handicapped kittens, need lots of attention & love. Heidi, x30756.

Male English bulldog, 2 yrs old, AKC reg, looking for female English bulldog to breed for pick of the liter. Anna, x33752.

Domestic, handraised, very playful Scarlett Macaw, 6 mos, loves people, only for knowledgeable bird lover, serious inquiries only. Barbara, 471-2780.-

## Household

Off-white sofa, good cond, $300. Kari, 282-9366.

Larry Dyke signed & numbered Limited Edition prints, First Print, Water Fall, others. 482-7546.

Microwave, $40; Duncan Phyfe mahogany step table, $60. 474-2383.

Magnavox 19" color TV w/remote, ex cond, $75. 486-8266.

Two Beige Broyhill sofas, coordinating fabric, great cond, $200 ea/$300 both. 486-5843.

King sz waterbed w/2 shelf hdbd & mirror, $350; chest of drwrs & dresser, $250; nightstand, $25. Bob, 244-4431.

5 pc dining room set, table has 1 leat, chairs roll, swivel & rocks, $250. kathy, 337-5622.

GE white self-cleaning elect oven w/auto controls, $375; dark blue drapes for sliding glass dr & single window, lined, $100. 333-3151.

Woodard table & 4 chairs, new cushions, ex cond, $250. x31574 or 333-3352.

Almond refrig, ex cond. Myrna, 218-461-0141.

Mexican Talavera painted sink w/whimsical mermaid's, 15.5" x19.5" w/2" pipe opening & overflow drain, $150 obo. Steve, 992-7049.

Fuzzy beanbag sofa, computer desk w/hutch, built-in lamp, $75; 2 matching end tbls, $15 ea; nightstand, $15; desk lamp, $5, all ex cond. 482-7937.

Two ceiling fans, good cond, $25 both. x30737.

White sect sofa, ex cond, $300. 409-935-4252.

Waterbed, kg sz w/double shelf's & mirror, $200. Bob, 244-4431.

Franklin recliner, dk teal, ex cond, $250; elegant beige/floral brocade sofa & loveseat, brass floor lamp & complementing sofa painting, $300 all. 471-7601.

Portable dishwasher, $50; rolltop computer workstation, $150; 1300 sq ft good used carpet, tan, $150. Mike, 797-0525.

Matching couch, loveseat & chair w/throw pillows, good cond, $400. x31920.

Kenmore refrigerator, 1.7 cu ft, $50. Trang, x38017 or 484-6204.

## Wanted

Want non-smoking, male roommate to share 2-2 Pearland TH, $350 + 1/2 utilities. John, 997-8796.

Want non-smoking roommates to share 3-2-2, Webster, prefer students, $340 mo incl utilities except phone. 332-8417.

Want housemate, Seabrook, free rent in exchange for babysitting 4 nights a week, ref req. 286-7583.

Want non-smoking housemate to share 3-2 house, Sagemont, no pets/children, $385 mo + 1/2 utile, not incl phone. Diane, 244-7129.

Want roommate, 4-2-2, Seabrook, separate loft & living area & phone, cable/fax, W/D, $375. 474-4742.

Want helium tank, regulator & nozzle or mylar balloons, also latex or mylar balloons. Steve, 992-7049.

Want electric treadmill in good cond. 488-0664.

Want travel trailer, 18' - 29', ok. Tex, x31717.

Want anyone that witness to a car accident at Gate 3 at 8:20 a.m. on 8/7/96, call security. x34441.

Want personnel to join VPSi vanpool departing Meyerland Park & Ride lot at 7:05 a.m. for JSC, 8 a.m./4:30 p.m. shift. Don Pipkins, x35346.

## Miscellaneous

Aquarium, 29 gal, filter equip, hood w/light, strip, salt water gravel, $85. Christie, 333-7484 or 333-0270.

Golf clubs, Woods, Pigsy Eye 2, 1/3/5, ex cond, $200; Big Bertha War bird & #5 Wood, $200. Paul, x47182 or 335-7141.

Ladies' entire wardrobe, all seasons, sz 12, best offer. 332-0036.

Super Tigre 4500 model airplane eng, ex cond, $290. 585-4268.

Mint U.S. sheets in good cond, .6 - .15 stamps. $480. Jeff, 482-5393.

Body Tech home gym, ex cond, 4 sta, dual stack, $599; Cardinglyde, ex cond, $99. 482-9576.

'93 Jayco 1406 pop-up camper, sleeps 6, A/C, frig, stove, sink, porta potty, awning, $4995. 482-9576.

Lawnmower, 21", pwr drive, mulcher or rearbag, 3.5Hp B+S, $50. 532-1673.

Russian Night vision rifle scope w/case, uses AA batteries. Ron, x48200.

Doll collection, best offer; drafting table, $300; golf clubs, $250; entertain center, $100; wedding dress + access, $500; 21" cabin cruiser, $800. 922-7507.

Prosport Fitness climber, $125. 282-9522.

Super NES Jungle Strike game, $35 obo. Ron, x48200.

RCA 25" console TV, stereo sound, $450; regulation pool table, needs recovering, $800. Diane, 244-7129.

Valsport men's soccer shoe, sz10, $40; 5Hp Go-Cart, $425; Bauer Roller blades, $30; skateboard, $25. x33137 or 334-2533.

Free Louisiana Yellow Iris, alfalfa pellets; water lilies for sale. x48745 or 337-5392.

Go Cart, Manco, 5Hp, adj seat, ex cond, $575. Dan, 992-0488.

Two lg sleeping bags, $25 ea; 2 folding tables, 3'x6'; 3-man dome tent, quick assem, $50; golf pull cart, $20; BBQ grill, $10; garden tools, $5 ea. x32264 or 488-2184.

Two Bally's President & 1st Lady Gold Charter memberships, $400 ea; treadmill, digital readout, $100. x35753.

Weedeater gas pwr, 15" cut, 22cc, ex cond, $60; 16 ga Tennsmith metal shear 3', $900; several VW repair man, also Honda '73-'76, $5 ea; 1" SS ball valve high pressure & 1" brass gate valve, $25 ea. 921-7212.

Gas stove, everything works, $100; Toddler bed red, w/mattress, $30; infant girl clothes, .25 - $3, 0-6 mo to 12 mo; bouncer, $5; jumper, $5. 470-2892.

Russian Matroyshka dolls, limited traditional, animated charter & team sport dolls, 5 dolls/set, $25 set. 482-5531.

Pet/reptile cage, 4 tempered glass sides, formica over plywood, fl, elect cord, access, ex cond, 2'x2'x4', $125 obo. Dan, 482-7550.

Solitaire engagement ring, .45 ct. SI1 clarity, I color, $525. 482-5531.

Demetrios designer wedding gown, w/veil, sz 8-10, $500 obo. Charlene, x30185.

Warren Moon autographed game used shoes w/auth, $200; Space Shots 1 uncut sheets, $10/set, $20/sets, boxes/$35; '58 Target Moon set, 5 cards, $475; 19 cards, $375. James, x31242.

Ektelon racquetball racket, 2 balls, ~1k kid's glass marbles for '20s; 125 lead soldiers, 2" from '40's. best offer ea. J. Dornbach, 326-3459.

Three-in-one light/flasher/200PSI a.c. plugs into cig lighter, $20; 20" 14kt gold layered herring bone necklace, $500; genuine freshwater pearl necklace & bracelet set, $5. Sonia, 486-0389.

Two 15-RD factory magazines, fits Taurus PT 92/99, $50. Barry, x39280 or 996-5739.

Zanzibar ladies 15 spd bicycle, mountain bike style, shimano controls, ex cond, $90; Honda pwr-propelled lawnmower w/mulching blade & rear bag, 3 spd transmission, $250. 244-2444 or 488-4382.

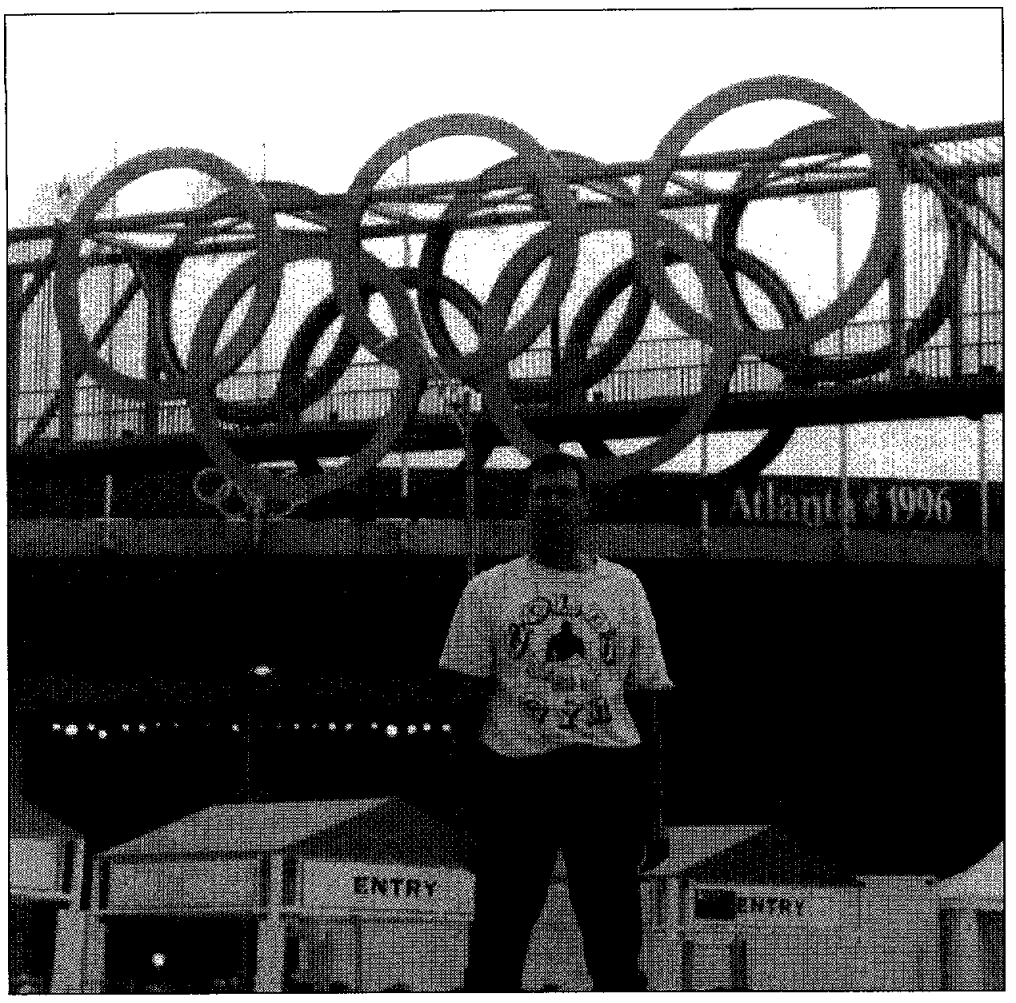
One pr Chevy mag wheels w/new tires, $300; set of rear view mirrors for Chevy truck, $40. 998-2293.

Utility trailer, 16 x 8, ex cond, garage kept, $550. Heidi, x30756 or 484-4977.

Fisher Price car seat, $25; Cosco Safety Mesh bed rail, 48"x16", $8; twin sheet set w/colorful Transformer design for kids, $8. 480-3424.

Murry 3.5 Hp self-propelled lawnmower w/rear grass catcher, needs minor work, but runs, $30. Mark, x30131 or 488-0056.

"Body by Jake" hip & thigh machine, ex cond, w/booklet, $69. Sheila, 486-7412.




# Olympic Ambassador

## JSC employee fulfills dream of taking part in Olympic history

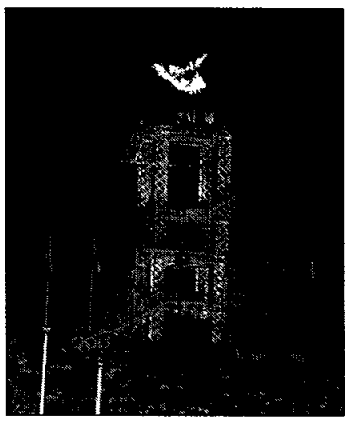
*[Editor's note: Rick Stonebraker, a quality engineer for Raytheon at JSC and four-time national archery champion, served as an archery judge at the Olympic games in Georgia. The following article details his experiences during the week in Atlanta.]*

**By Rick Stonebraker**

The Olympics are a dream I've had since I was a kid, so being chosen to be an official judge was a great honor.

The flight to the games was nothing special, but being met by a volunteer at the gate with my name on a placard certainly was a highlight.

At the accreditation center I was issued an Olympic wardrobe: two pair of khaki pants, three pair of khaki socks, one multi-ring polo shirt, two red polo shirts for judging, a long-sleeve white dress shirt, a pair of Reebok walking shoes, a Panama hat, a blue web belt with an Olympic engraved buckle and a beautiful teal blazer that hangs on me like Hakeem's outfits. Nice stuff!



Housing at Emory University was typical dormitory rooms, big enough for one but meant for two. Each room had a television as required by the Olympic Committee to view events.

The archery and cycling venue was located on the north side of Stone Mountain about 30 miles east of Atlanta. The site had previously been a dump, but had been converted into a magnificent area for the Olympic games. The original $3.5 million price tag had ballooned to more than $12 million. Plans are to fully restore the site to its original state when the games are over. Does that mean another dump?

The venue itself looked like a tent city, all air conditioned. The athletes had a tent, the judges had a tent and there were dozens of trailers. It looked like either a refugee city or a circus coming to town. Five thousand spectators were seated in stands shaped like a giant horse-shoe. It was exciting to see that many people watching archery.

The tower on the right side of the field held a 30-foot television screen. Cameras showed archers shooting and target results. The big screen was able to show all angles, making it very exciting to watch. There were even mini-cameras in the center of targets that were used in the medal rounds.

The expertise of the announcer made all of the above worthwhile. There were times while I was scoring that I was not able to take my eyes off my target, but I could always hear the announcer. That was the only way I could keep track of each exciting match.

The archery field was magnificent. I was a scoring judge in the blinds, or 'pits,' which were near the targets. There were eight targets in four pairs. After an archer shoots an arrow, the scoring judge verifies the value of the arrow and writes it on a score sheet. Approaching the target after every three arrows, the target judge calls out the value of each arrow and the score card is verified. The scores are sent to a central computer and displayed on the giant scoreboard, 40 feet tall and 50 feet wide.

Before each session, the judges marched into the stadium to the tune of the Olympic theme and the theme from Ben Hur. Each time we did this was inspiring.

In the preliminary rounds Olympic records were set in women's and men's individual competition. The Korean women and men set Olympic and world records in the team events.

Justin Huish of the U.S.A. won the gold medal for the men, and Kim Kyung-Wook of Korea won the women's gold medal. The number one ranked Korean men's team fell to the strong USA team, 251-249 in a very exciting final.

The judges' "official" photo session in front of the big scoreboard was followed by closing words in the judges tent. On behalf of NASA, I presented all the International Judges with information kits supplied by Bunny Dean of the Education and Information Services Branch. These contained history, shuttle photos and flight decals. I also presented each judge with a shuttle pin supplied by Helen Harris of the Awards Office. As pins are a big thing at the Olympics, these judges were proud to have a one-of-a-kind pin to display.

This Olympic event was proclaimed the best organized archery event on an international scale. I was honored to be part of it.

Princess Anne was on hand to greet and encourage all of the British athletes at the Olympics, and that included archery. I was close enough to meet the royals. Prince Phillip noticed my curiosity and urged the princess in my direction. I removed my hat and gently shook her hand. During the medal ceremonies, I also saw the King of Sweden who was on hand to congratulate countryman Magnus Pettersson for winning the silver medal.

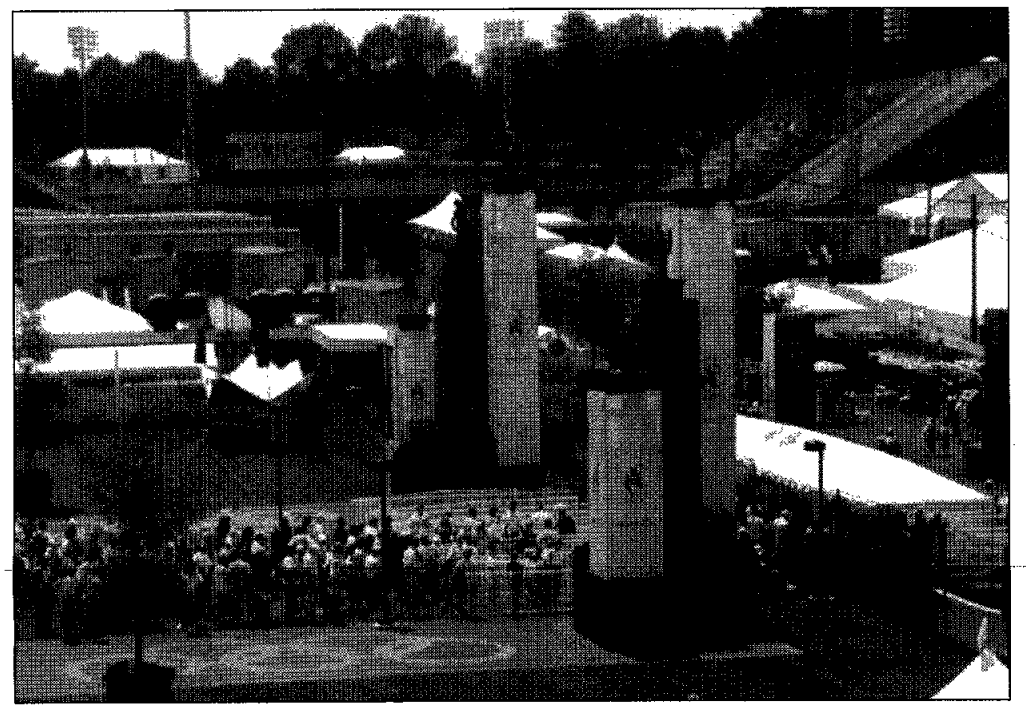
Some of the track and field events I attended at Olympic Stadium allowed me to watch Donovan Bailey breaking the world record, Gail Devers win her victory, Dan O'Brien, and Michael Johnson. I also saw gymnastics, volleyball, table tennis, diving, boxing and the Dream Team defeating Croatia. I arrived at Fulton County Stadium in time to watch the U.S.A. baseball team hit four home runs in two innings. Since archery shared a venue with cycling, I would spend my lunch time at the Velodrome. I took photos from the official photographers' platform at the end of the steeply banked track. Pretty exciting stuff. The top American sprinter lost the gold by the thickness of a wheel.

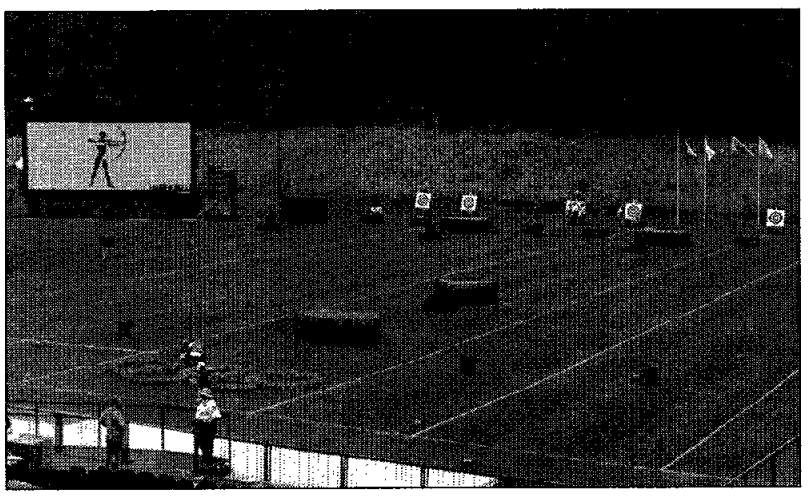
When attending other events, we were allowed in the VIP area and dined while watching several other events on closed-circuit televisions. One evening, the judges were honored guests of the Turkish Sports Federation. Soaking up the atmosphere, I realized how fortunate I was to be with so many intelligent and interesting people. Every judge knew at least one other language and some knew more. I learned just enough Turkish to say "thank you very much" at the end of the evening.

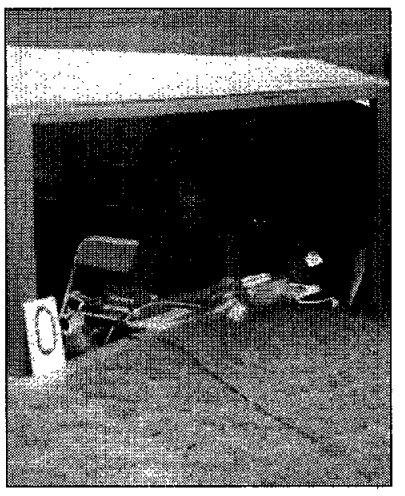
The Atlanta Constitution put out a report card on the Olympics and gave an "F" for ambiance. You couldn't prove that to us as my friend left her wallet at a T-shirt vendor early Saturday morning. After dropping me off at the airport, she returned to that vendor almost four hours later and the man returned her wallet with a pleasant, southern smile.

What a fantastic way to end this adventure. The people, the atmosphere, the events; it's a shame it has to come to an end. So, if you ask me what I thought of the whole thing—two thumbs up, a gold star and a perfect "10."

"What do ya say mate — see you down under in four years!" ❑








Photos by Rick Stonebraker

**From top to bottom, left to right: 1) Stonebraker stands at the crosswalk between the Olympic stadium and the tower that holds the Olympic flame before entering the stadium to watch track and field competition. 2) Visitors await entry into the archery competition at Stone mountain, 30 miles east of Atlanta. 3) The competition field features billboard size scoreboards and television screens. Judges, like Stonebraker, were placed into blinds to better judge the competition. 4) Stonebraker takes a break in the judges 'pits' during competition. 5) Team competition was fierce as the Americans edged the Koreans by only two points. From left Rod White takes his turn as Butch Johnson looks on. 6) American Justin Huish takes the gold in men's individual competition with Magnus Pettersson of Sweden taking the silver and Kyo-Moon Oh of Korea with the bronze.**

# New Houston area codes to affect JSC phones

**By Karen Schmidt**

Three numerals-281-are soon expected to affect JSC in a variety of ways, but employees can begin now to prepare themselves for the changes.

The Texas Public Utilities Commission recently voted to split area codes in the Houston area. This split requires all phones outside Houston's Beltway 8 loop—including JSC—to change to the new area code 281.

"We are trying to help employees make this change as painless as possible," said Don White of the Information Technology Office. "If employees prepare early for the change, the transition will be much smoother."

The new area codes will become effective Nov. 2 but employees will have until May 3 before the 713 area code is eliminated outside Houston's outer loop. During this transition, a phone in the new 281 area can be reached by dialing either the 713 or 281 area code. Local calls to numbers within the 281 and 713 areas will be accessible by dialing the seven digit number. Beginning May 3, the ten-digit number will be required when calling across the 281/713 area code boundary.

Long distance toll calls to JSC can be made using either the 713 or 281 area code until May 1997. After May 3, the only way to reach a JSC phone from outside the 281 area will be to use the 281 area code.

White said that employees can begin now to prepare for the new area code. Stationery and business cards should be ordered with the new area code. Speed dial numbers on phones, fax machines and modems will need to be reprogrammed to reflect the new area code. Employees should notify customers, international partners, vendors, suppliers, business associates and out of state friends and relatives of the pending area code change.

"This change in area codes will not change internal calling at JSC," White said. "Employees will still be able to call a five-digit extension to reach co-workers on site and at Ellington Field."

After the transition period, employees still will be able to call numbers in the 713 area code without paying long distance charges and without placing a one before the ten-digit number. The emergency number will remain 911 in Houston and the surrounding community and x33333 at JSC. Directory assistance will continue to be 1411. The Information Systems Office will be providing more information to employees in the coming months.

## Mars explorers arrive at KSC, launch this fall

Mars Global Surveyor and Mars Pathfinder, a pair of NASA spacecraft to be launched to the red planet this fall, have arrived at the Kennedy Space Center to begin preparations for launch.

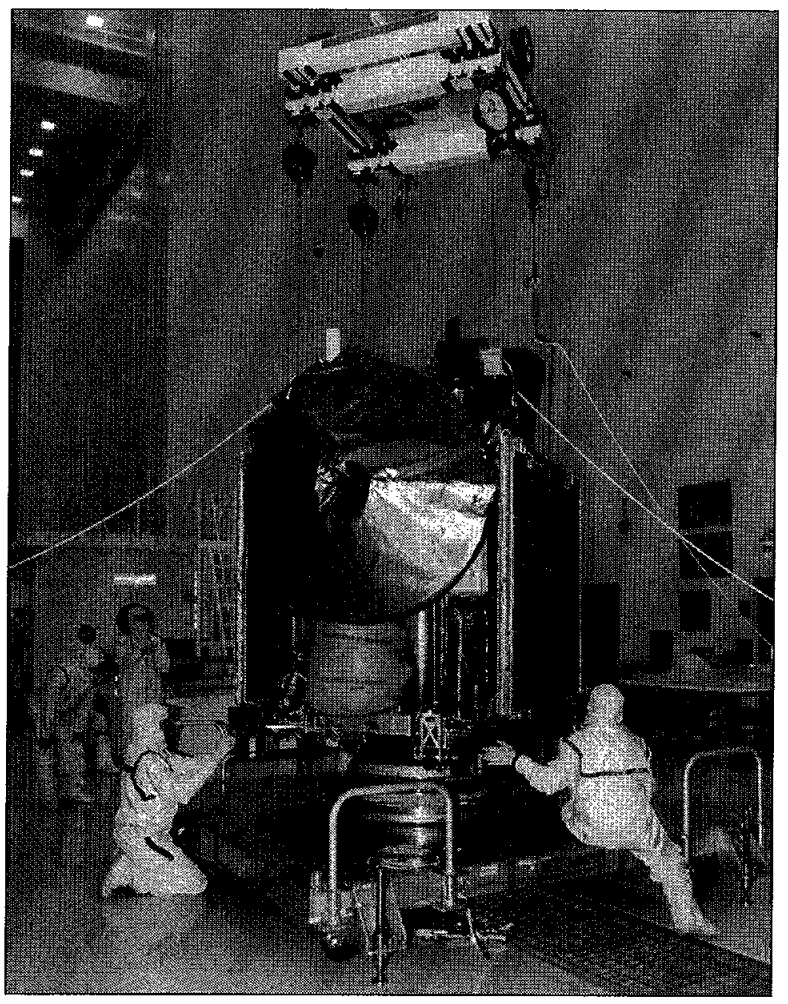
The Mars Global Surveyor will be placed in orbit around the planet. It holds a set of six instruments to study the planet's surface, atmosphere, gravitational and magnetic fields. The Mars Pathfinder will be deployed through the Martian atmosphere to land on the planet's surface and will deploy a small instrumented rover to investigate the terrain surrounding the spacecraft. Together, the Mars Pathfinder and rover will investigate the geology and elemental composition of the Martian rocks and soil, as well as the Martian atmosphere and surface weather.

Mars Global Surveyor, weighing 2,315 pounds was off loaded and taken to the Payload Hazardous Servicing Facility located in the KSC Industrial Area to begin launch preparations. During the time Mars Global Surveyor will be at the PHSF, it will undergo final instrument functional tests and electrical system testing, the batteries and thermal insulation will be installed, the spacecraft will be fueled with its control propellants, and it will be mated to its solid propellant "upper stage" which is the Delta third stage booster.

Launch of Mars Global Surveyor is scheduled for Nov. 6. The spacecraft will arrive at the planet in September 1997 to begin a mission that will last one Martian year, or 687 Earth days.

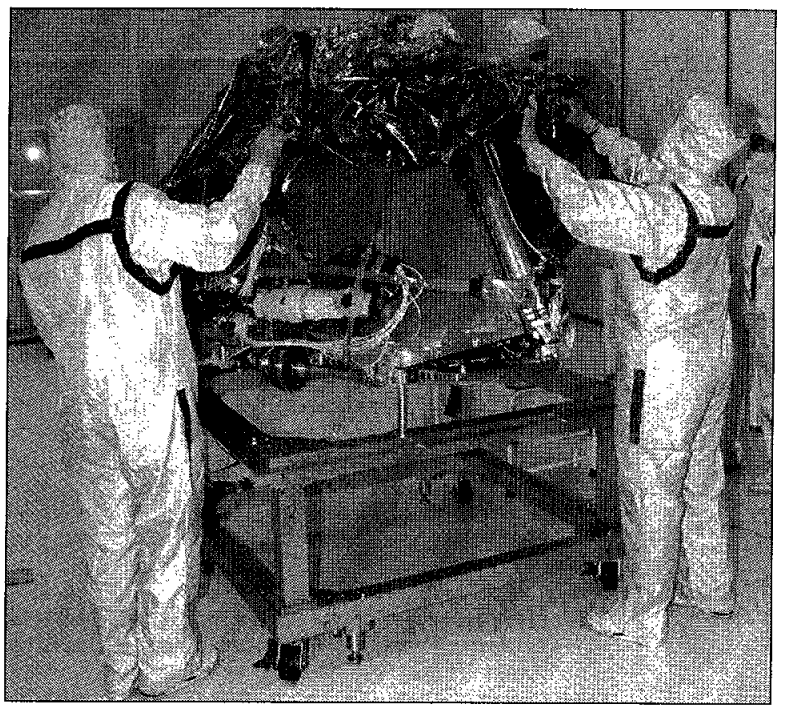
The integration of the four Mars Pathfinder elements— the cruise stage, aeroshell, lander and the small micro-rover known as "Sojourner"—will begin with installation of the rover on one of the four petals of the lander. The aeroshell which surrounds and protects the lander will be installed and parachutes will be attached. This assembled entry vehicle will be mated to the cruise stage and before going to the launch pad, the completed spacecraft will be mated to the upper stage booster.

Launch is scheduled to occur on Dec. 2. Landing on Mars is planned for July 4, 1997. On the planet surface, the mission is planned to last about one month.



NASA Photos

**Above: Technicians remove the compact Mars Global Surveyor from its shipping crate at the Payload Hazardous Servicing Facility at Kennedy Space Center. The Mars Global Surveyor is expected to launch in November with arrival to Mars orbit slated for September 1997. Below: Engineers from the Jet Propulsion Laboratory remove the protective wrapping from the Mars Pathfinder lander at KSC. The Pathfinder will launch in December and land on Mars about July 1997.**



## Russian cosmonaut Kondakova joins STS-84

Veteran Russian Cosmonaut Elena Kondakova has been named as a mission specialist for STS-84, joining six astronauts already named to *Atlantis*' 1997 flight to dock with Russia's Mir Space Station.

Kondakova, an engineer with RSC Energia in Russia, currently holds the single space flight endurance record for a woman, having spent 169 days in space as part of the Mir 17 crew from October 1994 to March 1995. That record will be surpassed by U.S. Astronaut Shannon Lucid on Sept. 7. She will join STS-84 Commander Charlie Precourt, Pilot Eileen Collins and fellow Mission Specialists Carlos Noriega, Edward Lu, Jean-Francois Clervoy of the European Space Agency and Michael Foale.

Foale will be launched aboard *Atlantis* for a four and a half month stay on Mir. Jerry Linenger will return to Earth on board *Atlantis* at the conclusion of his stay on Mir as part of the STS-84 crew. Linenger will be launched to the Mir in January 1996 aboard *Atlantis* as part of the STS-81 crew.

As part of the Mir 17 crew, Kondakova served as flight engineer. Highlights of that mission included the first rendezvous of *Discovery* with Mir during STS-63 and the arrival of the Mir-18 crew that included the first American on board Mir, former astronaut Norman Thagard. Kondakova becomes the third Russian cosmonaut to fly on the shuttle as a mission specialist following Sergei Krikalev on STS-60 and Vladimir Titov on STS-63.

## Three get new positions

Three JSC employees will take on new roles in the Space Shuttle Program Office and the Office of the Chief Financial Officer.

Space Shuttle Program Manager Tommy Holloway has named Bill Harris manager of the Space Shuttle Program Safety and Mission Assurance.

In this new role, Harris will assist Holloway in complying with agency safety and mission assurance policy and procedures, evaluate program risks and ensure establishment of contractor S&MA processes. He will provide program-level oversight of the space shuttle S&MA programs to ensure activity compatibility with program S&MA strategies and policies, to maintain knowledge of program risk issues, and provide focus for program support to independent assessments which may be performed by external organizations.

Chief Financial Officer Wayne Draper has named John Beall the Deputy Chief Financial Officer. Beall will assume this role on Sept. 15 and be located in Bldg. 1.

Gail Hammond will assume the position of chief of the Financial Management Division. Hammond is transferring to JSC from NASA Headquarters, Office of Space Flight, where she is currently deputy director of resources management. Hammond will be in Bldg. T585.

## JSC home page now eaiser to use

**(Continued from Page 1)**

news media, business people and employees.

"Welcome to the JSC Web," reads the new main page. "Please let us help you find what you're looking for quickly and easily. Select a category from the links above. If we haven't anticipated your information needs, please try any of the other categories or the Search function."

Designed by the Public Affairs Office's Information Services Team, with help from the Business and Information Systems Directorate's graphics and Internet groups, the pages went on line the day before the second annual JSC Open House. Top-level pages include few graphics in an effort to provide speedy file transfers even for visitors using telephone lines and modems.

New features of the JSC Web include a virtual tour of JSC, using "clickable" aerial photographs of the center, and a clickable JSC organization chart featuring information about each directorate and office, as well as biographies of senior staff members.

The Information Services Team is seeking comments and additional information to use on the Web site and in its features, especially in the area of the virtual tour. Organizations with suggestions should contact Kelly Humphries, the PAO Information Services Team lead, or curator, Terry McDonald of Hernandez Engineering, by clicking on their names at the bottom of the pages.

## Lucid to bring home lessons learned

**(Continued from Page 1)**

Lucid hopes to be able to bring back to Earth some of the lessons she has learned while on Mir.

"My family would be surprised at the patience I've developed and I hope that I can bring some of the patience that I've developed back home with me," Lucid said.

Lucid's Mir 21 crewmates, Commander Yuri Onufrienko and Flight Engineer Yuri Usachev, along with French Cosmonaut Claudie Andre-Deshays, will leave Sept. 2, leaving Lucid with the Mir 22 crew until *Atlantis* docks with the station in mid-September. Lucid said she is happy to see her teammates of five months returning to their families, but also sad to see them go.

"I really enjoyed working with Yuri and Yuri," Lucid said. "I could not ask for two better people to spend a long-duration space flight with."

Lucid also continued looking toward the future.

"I think it would be an outstanding thing for the different nations of the Earth to work together toward a common goal of going to Mars," Lucid said. "From a scientific and technological standpoint, I don't see any great show stoppers. From an individual standpoint, from individuals working together, I can see absolutely no problem."

**Space News Roundup**

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Editor .....Kelly Humphries
Managing Editor .....Karen Schmidt
Associate Editor .....Natasha Calder

## Blaha ready for first crew exchange

**(Continued from Page 1)**

looking at Sept. 14 as the launch date because of a range conflict with an Air Force Delta 2 rocket on Sept. 12, currently set to carry a Global Positioning System satellite into orbit. However, the Mission Management Team also was keeping tabs this week on Hurricane Eduoard, and a series of storms swirling behind it out in the Atlantic, as they evaluated launch dates.

But *Atlantis'* six astronauts were clearly upbeat and optimistic as they ran through their dress rehearsal procedures during the week at KSC.

"I think what we are about to do here is pretty exciting," Blaha said during a question and answer session with reporters at Launch Pad 39A. "A crew exchange in orbit, when you think about it, is incredible, and this is the first crew that is going to do that."

Readdy, who is about to begin his third space flight, said the STS-79 mission holds promises and lessons for future space endeavors by NASA and other nations.

"We always learn something new every time we go fly," Readdy said. "We are learning something about operating a space station and we have to develop these techniques a little bit at a time in order to get an operational capability."

NASA-JSC