

JSC employees learn how to protect NASA's technology and America's competitive position. Story on Page 3.



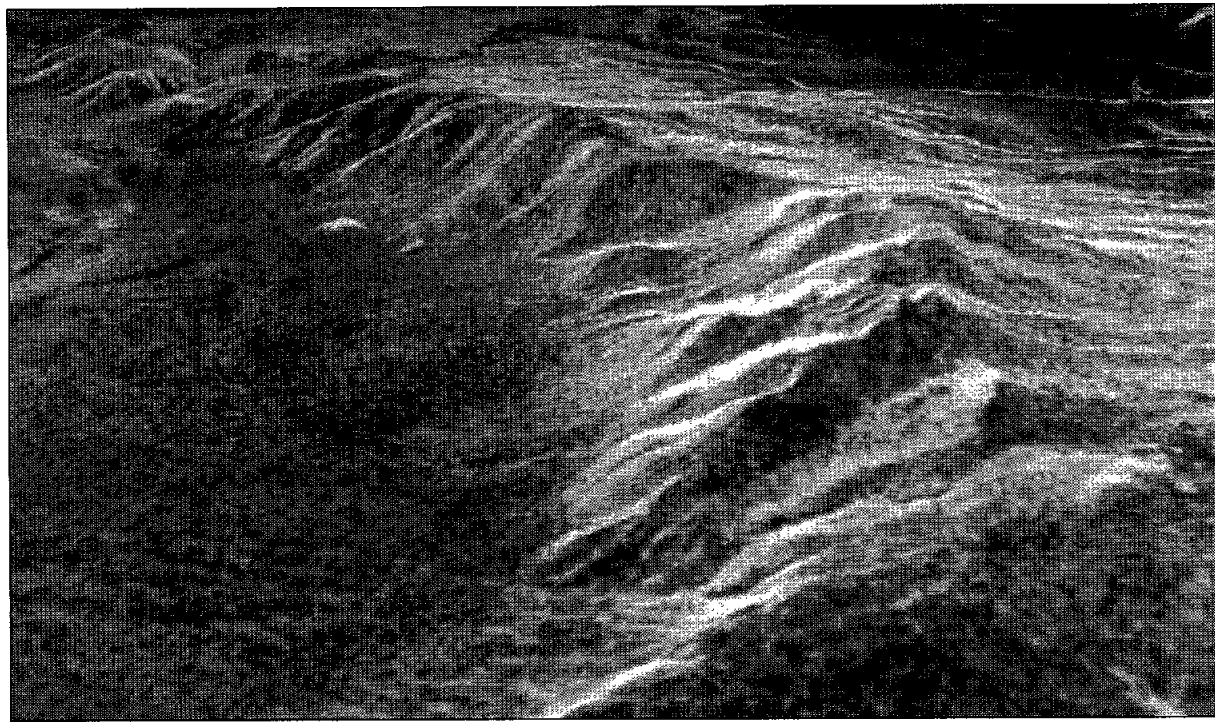
Job changes and awards are highlighted in this week's People section. Story on Page 4.

Space News Roundup

Vol. 33

October 14, 1994

No. 39



This three-dimensional view of Long Valley, Calif., was constructed using the Spaceborne Imaging Radar and Synthetic Aperture Radar on board *Endeavour* by overlaying a composite SIR-C image on a digital elevation map. The digital elevation map was produced using radar interferometry. The data were acquired on April 13, 1994, and Oct. 3, 1994, during SRL-1 and SRL-2. The view looks north along the northeastern edge of the caldera, a volcanic collapse created 750,000 years ago and the site of continued subsurface activity.

Endeavour crew returns precious cargo of images

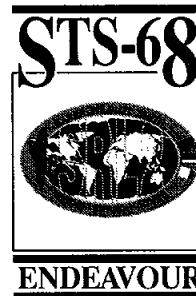
Endeavour's crew returned home Tuesday with a precious cargo of radar images of our home planet, images that scientists say can shed new light in future studies of volcanoes, earthquakes, glaciers, forests and oceans.

In addition, the Measurement of Air Pollution from Satellites completed a global map of carbon monoxide distribution in the troposphere, the lower layer of Earth's atmosphere.

"We're happy to be back and we're happy that we had a very successful mission," said Commander Mike Baker. "We're proud to be part of the Mission to Planet Earth and the Space Radar Lab and hopefully helping us understand our planet, how we should live on it and help to make it better."

and JPL and also in Europe."

Images from the radar included three-dimensional videos of volcanoes Mt. Pinatubo in the Philippines and Kluichevskoy on the Kamchatka Peninsula. Volcanoes were a major subject of the final days of the mission and interferometry—combining duplicate, slightly offset radar images to produce topographic maps—and scientists imaged a majority of the volcanoes identified as the most dangerous in the world.



The topographic maps, scientists said, are more accurate—within six yards—than any topographic map yet produced. Comparisons of the three-dimensional maps taken over long periods of time with a permanent space radar could detect movements of the Earth's surface as small as a fraction of an inch. The maps were equal in accuracy to the topographic maps it has taken the U.S. Geological Survey three decades to produce.

"We can map the world with this thing," said SIR-C scientist Mike Kobrick. "If we had a longer term satellite lasting at least about a year, we could cover the Earth with this kind of resolution."

"The fact is, the Earth is fairly poorly mapped," he continued. "The United States is just about covered with maps of this quality because the USGS has been working on it for 20 or 30 years. But the data set for the rest of the world is abysmally bad. The problem is you can't see much of the planet from orbit because on average 40 percent is covered by

Please see **STS-68**, Page 4

NASA creates Phase One office

A new Phase One Program Office to direct the upcoming shuttle flights to Russia's Mir space station has been formed, and Tommy Holloway, who has served as a shuttle flight director and shuttle deputy manager for program integration, has been named as its manager.

"The Phase One Program Office will be responsible for pulling together NASA resources, plans and requirements for the shuttle flights to Mir," NASA Administrator Daniel S. Goldin said when he made the announcement this week. "The shuttle-Mir program is critically important for NASA because it will prepare us to build and operate the International Space Station, and because it brings together the United States and Russia in a major endeavor that takes advantage of both countries' capabilities."

Holloway and the Phase One Program Office will be located at JSC and will be responsible for pulling together NASA resources and plans for a series of cooperative space flights between the U.S. and Russia.

"I am honored and excited to be managing this superb

team which has already put in so much work into building this joint program," Holloway said. "We have been working together on this with our Russian counterparts for over two years, so it will just be a matter of implementing our new management plan and helping the organization do what NASA and the Russians already know how to do so well—fly manned missions."

"Phase One" represents the activities that will develop the experience and technical expertise necessary for the assembly and operation of the International Space Station, which will occur in Phase Two and Three. In addition, a full program of science experiments and research is planned to be conducted on both the Mir and the Shuttle, as well as extravehicular activities. The program will bring together the United States and Russia in a major endeavor that takes advantage of both countries' capabilities.

The Phase 1 Program Office will be responsible for developing the requirements for shuttle flights to Mir; directing activities associated with research on astronauts

Please see **HOLLOWAY**, Page 4



Cosmonauts use NASA experiments to check Mir vibration

Russian cosmonauts have activated the first in a series of U.S. experiments on Mir, marking a major milestone in U.S. microgravity research aboard Russia's space station.

The Space Acceleration Measurement System was activated Oct. 4. Following calibration and check out by the crew, SAMS collected 12 to 14 hours of vibration data as part of an experiment.

The Tissue Equivalent Proportional Counter was activated shortly after the equipment arrived at the Russian station Sept. 3. TEPC is a dosimetry package that will measure

and characterize the radiation environment on Mir.

"The TEPC will help us understand the environment for life sciences, and the SAMS will help us understand the environment for microgravity sciences," said Tom Sullivan, mission scientist for the shuttle-Mir flights. "This is a big step forward for us. We have gotten the hardware through processing, gotten it up to Mir, trained the crew and had them perform our science."

"This milestone is important, not just because we just have hardware operating; it's important because

we've accomplished a number of steps to get it operational."

The SAMS experiment consists of three acceleration sensor heads placed in the planned locations for the NASA Protein Crystal Growth experiment and the Russian Gallium furnace to measure the vibration characteristics of the Mir station. This information is valuable for U.S. investigators who plan to fly their experiments on the Mir next year. This data will be returned to Earth with the Mir-16 crew in November 1994.

Low frequency vibrations can adversely affect the results of sensi-

tive microgravity experiments. Vibrations caused by crew movements, equipment operations and occasional thruster firings can temporarily disrupt the quiet low-gravity environment and may affect microgravity science experiments and their results. By studying SAMS data, scientists can make allowances for the disturbance as they analyze their experiment results.

This vibration background must be recorded and analyzed, both to allow individual microgravity experiments to correlate the environment with experimental results, and to deter-

mine if the experiments must be isolated from any disturbances. The data will be analyzed jointly by U.S. and Russian researchers.

Flying SAMS on Mir meets a U.S. National Research Council recommendation that NASA measure and characterize the vibration environment on all spacecraft carrying chemistry and physics experiments and to pursue strategies for producing the lowest possible gravity conditions.

Both SAMS and TEPC instruments have been flown on the space shuttle several times.

Magellan begins dramatic end to successful mission

NASA's Magellan spacecraft began a dramatic conclusion to its highly successful mission at Venus when controllers commanded it to plunge into the planet's dense atmosphere Tuesday.

During its four years in orbit around Earth's sister planet, the spacecraft has radar-mapped 98 percent of the surface and collected high-resolution gravity data of Venus. The purpose of the crash landing is to gain new information on the planet's atmosphere and on the performance of the spacecraft as it descends.

Flight controllers at NASA's Jet

Propulsion Laboratory expected to lose contact with Magellan on Thursday due to depletion of the batteries or attitude control propellant as it broke up in the Venusian atmosphere.

Engineers said it was difficult to predict exactly when Magellan would enter Venus' atmosphere. But the spacecraft was traveling more than 15,658 miles an hour and expected to disintegrate from a rapid combination of dynamic force and heat. A few pieces, such as the inner hubs of reaction wheels, might reach the surface as burned cinders lost among the vast lava flows Magellan revealed.



DROPPING IN—JSC employees and the public get a chance to see the Space Shuttle *Columbia* during a stopover at Ellington Field on Monday. The eldest shuttle in the fleet was on its way to California for a refit.

JSCPhoto by Mark Sowa

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 information, call x35350 or x30990.

Halloween Dinner/Dance: Dinner Dance begins at 8 p.m. Oct. 29. Cost is \$17.50 per person. Tickets are on sale at the Bldg. 11 Exchange Store through Oct. 26.

Wurstfest Bus Trip: Nov. 5. Cost is \$20 adults, \$16 children. Tickets go on sale Oct. 11.

Renaissance Festival Bus Trip: Oct. 15 & Oct. 29. Cost is \$17 adult; \$5 child (5-12 years). Price includes admission and transportation.

Clear Lake Symphony: Season pass on sale through Oct. 14. Cost is \$20 adults; \$12 seniors and full-time students.

Ballet Folklorico: Ballet Folklorico performs Oct. 14 at the Opera House in Galveston. Tickets on sale through Oct. 14. Cost is \$20.

Bay Area Chorus: Chorus performs "Celebrate the Songs of Nature" at 6:40 p.m. Oct. 23 at Clear Lake Presbyterian Church. Cost is \$8 adults, \$5 students and seniors.

Renaissance Festival: Festival runs from first weekend in October to second weekend in November. Cost is \$10.50 adults; \$5.25 child (7-12).

Air Show: Tickets on sale for Oct. 15 & 16 Wings Over Texas Air Show. Cost for 1-day admission is \$7.35 adults, \$2.10 child.

Moody Gardens: Discount tickets for two of three different attractions: \$9.50

Space Center Houston: Discount tickets: adult, \$8.75; child (3-11), \$7.10; commemorative, \$9.55.

Metro tickets: Passes, books and single tickets available.

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

Stamps: Book of 20, \$5.80

Upcoming Events: Children's Halloween Party, Oct. 29; Travel Fair, Nov. 1; New Arts Six Concert, Nov. 6, \$7; David Parsons Dance Co. & Billy Taylor Trio, Nov. 12, \$19; Walt Disney on Ice, Beauty & the Beast, \$11.

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

JSC

Gilruth Center News

Sign up policy: All classes and athletic activities are first come, first served. Sign up in person at the Gilruth Center and show a NASA badge or yellow EAA dependent badge. Classes tend to fill up two weeks in advance. Payment must be made in full, in exact change or by check, at the time of registration. No registration will be taken by telephone. For more information, call x30304.

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

Weight safety: Required course for employees wishing to use the weight room is offered from 8-9:30 p.m. Oct. 19 and Nov. 2. Pre-registration is required. Cost is \$5.

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

Aerobics: High/low-impact class meets from 5:15-6:15 p.m. Tuesdays and Thursdays. Cost is \$32 for eight weeks.

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

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

Intercenter run: The month-long competition between NASA centers runs Oct. 1-31. Walk or run 2 miles or 10k. For additional information, contact the Gilruth Center at x33345.

Volleyball clinic: Eight-week women's volleyball clinic began Oct. 1. Classes are from 2-4 p.m. Saturdays. Cost is \$25. For additional, contact the Gilruth Center at x33345.

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

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

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

Sailing club: Intermediate sailing classes will be held Oct. 15. For additional information, contact Richard Hoover at x31360, or 996-7716.

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

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Swap Shop ads are accepted from current and retired NASA civil service and on-site contractor employees. Each ad must be submitted on a separate fullsize, revised JSC form 1452. Deadline is 5 p.m. every Friday, two weeks before the desired date Friday, two weeks before the desired date of publication. Ads may be run only once. Send ads to Roundup Swap Shop, Code AP3, or deliver them to the deposit box outside Rm. 147 in Bldg. 2. No phone or fax ads accepted.

Property

Sale: Bay Glen, 2-story house, 3-2.5-2, tile entry & kitchen, deck & covered patio, 5 yrs old, \$101.9k. 486-4508.

Sale: LC, The Wharf townhomes, 2-2-1, 3-story, approx 1300 sq ft, waterfront view, 2 patios, boat-slips avail, \$93k. Debbie, x33038 or 332-0479.

Sale: Pearl and Woodcrest, 3-2-2, pool, satellite dish, storage shed, owner finance possible. 485-9425.

Sale: South Shore Harbour, 4-2.5-2D, 2-story, lg landscaped lot, lg deck, \$116.5k. 334-4240.

Sale: El Dorado Trace, 2-2.5 approx 1250 sq ft, fenced patio, 2-story, tiled floors, covered parking, new AC, \$44k. 286-0520.

Sale: LeaqueCity in Bayridge, 3-2-2, foreclosure by owner, large yard, cul-de-sac, \$58k make offer. 286-1934.

Rent: University Trace condo, 1 BR & study or 2 BR's, fans, new carpet, \$495/mo. 286-1934.

Sale: BayWind condo, 1 BR, W/D connections, 1st floor, FPL, kitchen appli, owner finance possible, \$28.9. 488-8102.

Sale: Cemetery lots at Rosewood Memorial Cemetery in Humble, Tx, \$395/ea. x40250 or 941-3262.

Sale: BayWind I condo, 2-1.5-2 spaces, 1st floor, W/D, new dishwasher, ex cond, immediate occupancy, financing avail, \$35k. Tom, 333-3992.

Sale: Dickinson, mobile home space, corner lot, runners & patio, utils, 50' x 110', owner finance possible, \$10.9k. 337-1311.

Sale: Alta Loma/Santa Fe, 2.5 acres, ready to build, mineral rights. 337-1311.

Sale: Meadow Green, 3-2.5-2A, new paint in/out/wallpaper, FPL, lg backyard, new cost efficient A/C, alarm & more, \$87k. 480-3986.

Lease: LC Countryside, 3-2.5-2, 2-story, new paint, nice carpet, corner lot, avail Oct 1st, \$795/mo + deposit. x33765 or 326-1390.

Rent: Galveston condo, furnished, sleeps 6, Seawall Blvd & 61st St, wknd/wkly/dly rates. Magdi Yassa, 333-4760 or 486-0788.

Cars & Trucks

'85 Nissan Sentra, 5 spd, A/C, 2 dr, silver/gray, 139.6k mi, \$1,750. 332-2571.

'78 Mercury Marquis, 4 dr, auto, good cond, no rust, \$750 OBO. John, x38988 or 482-6364.

'79 ZX, 5 spd, A/C, ex cond, 108k mi, \$3,250 OBO. Michael, x37371 or 480-3329.

'81 Chevy Caprice, 305, auto, new guaranteed A/C, \$900. Ron, x38785 or 409-945-8789.

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

'86 Toyota Corolla GTS, A/C, PS, new tires, car phone, ex cond. Bill, 938-1655.

'86 Toyota Celica GT, liftback, auto, A/C, cruise, new tires/struts, good cond, \$3.5k OBO. Tom, x40048 or 992-2166.

'87 Audi 5000 S, gold, auto, A/C, all pwr, sunroof, stereo cassette, good cond, \$6,750 OBO. Steve, x40015.

'87 Ford Taurus wagon, new A/C, alternator & tires, one owner, garaged, leather, keyless entry, 3rd seat & more, \$4.2k firm. 488-3700.

'71 Volkswagen Super Beetle, red, new paint, new motor, good cond, \$1.5k. 947-2025.

'76 Monte Carlo, rebuilt transmission, new tires, battery, starter, control module, AM/FM/cass. Mike Jones, 482-8494.

'92 Toyota Corolla, FWD, A/C, 5 spd, pwr steering, AM/FM/cass, 34k mi, \$7.3k. Ray, x38876 or 338-1065.

'87 Audi GT Coupe, 5 spd, 60k mi, no dents, digitalboard/computer, \$3.9k. 480-3986.

'86 Hyundai Excel GLS, cold A/C, stereo/cass, 5 spd, sunroof, ex cond, \$1,895 OBO. 332-9105.

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JSC

Dates & Data

Today

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

Saturday

SESL reunion — The Space Environment Simulation Laboratory 30th anniversary reunion begins at noon Oct. 15 at the Gilruth Center. Tickets are available at the Bldg. 11 Exchange Store. Cost is \$10. For more information, contact Pete Gist, 474-3504, or John Ogden, 337-3494.

Star watching — The JSC Astronomical Society and Challenger 7 Memorial Park will host an evening of star watching from dusk to 10 p.m. Oct. 15. Telescopes will be provided. For additional information, contact Bill Williams, 339-1367 evenings.

Monday

Cafeteria menu — Special: Italian cutlet. Total Health: herb flavored steamed pollock. Entrees: barbecue beef, spare ribs with kraut, steamed pollock, French dip sandwich. Soup: black bean and rice. Vegetables: California mix, okra and tomatoes, vegetable sticks, ranch style beans.

Tuesday

Blood drive — McDonnell-Douglas will host a blood drive from 8-11 a.m. Oct. 18 at 13100 Space Center Blvd. For more information, contact Teresa Esquivel, 212-5036.

AIAA meets — The Houston Section of the American Institute of Aeronautics and Astronautics will host its a meeting beginning at 5:30 p.m. Oct. 18 at the Gilruth Center. Astronaut Bonnie Dunbar will present a "Report from Star City." Reservation deadline is noon Oct. 13. For reservations and additional

information, contact Fran Jamison, 333-6277; Ardell Broussard, 283-1040; Mary Ann Bivona, 483-1350; or Sarah Leggio, 282-3160.

Cafeteria menu — Special: corned beef hash. Total Health: baked potato. Entrees: meatballs and spaghetti, grilled liver and onions, beef cannelloni, ham steak Hawaiian. Soup: split pea. Vegetables: winter blend mix, seasoned cabbage, breaded squash, lima beans.

Wednesday

Astronomy seminar — The JSC Astronomy Seminar will meet at noon Oct. 19 in Bldg. 31, Rm. 129. An open discussion meeting is planned. For more information, call Al Jackson at 333-7679.

Toastmasters meet — The Spaceland Toastmasters meets at 7 a.m. Oct. 19 at House of Prayer Lutheran Church on Bay Area Blvd. For additional information, contact Darrell Boyd, x36803.

Cafeteria menu — Special: smoked barbecue link. Total Health: roast porkloin. Entrees: cheese enchiladas, roast pork and dressing, baked scrod, baked chicken, Reuben sandwich. Soup: seafood gumbo. Vegetables: Italian green beans, Spanish rice, turnip greens, peas and carrots.

Thursday

AGA meets — The Houston chapter of the Association of Government Accountants will meet at 11:15 a.m. Oct. 20 at the Holiday Inn-Medical Center, 6701 S. Main. Houston Mayor Bob Lanier will speak. Cost is \$12. For more information, call Kathy McDonald at x32733.

Development seminar — The Texas Gulf Coast Council of the National Management Association will host its 1994 Professional Development Seminar from 7 a.m.-4 p.m. Oct. 21 at the Holiday Inn,

Hobby Airport. A joint chapter meeting will be held beginning at 5 p.m. Oct. 20. For reservations or information, contact Joyce Brandt, 244-5298 or Edmund Matkins 280-2468.

AIAA seminar — The Houston section of the American Institute of Aeronautics and Astronautics will host a "Financial Management Seminar" at 7 p.m. Oct. 20 in the lecture hall at the Lunar and Planetary Institute. For additional information, contact Jayant Ramakrishnan, 333-4419 or Mike Begley, 333-6996.

PMA meeting — The Houston Chapter of the Performance Management Association will host its meeting from 11:15 a.m.-12:45 p.m. Oct. 20 at the Gilruth Center. Featured speaker for the event is Harry Walbrecher discussing "Program Integration Management Systems." Cost to attend is \$8. For reservations and additional information, contact Jerry Randolph, x36009.

Cafeteria menu — Special: chicken fried steak. Total Health: roast beef with gravy. Entrees: roast beef with dressing, steamed pollock, lasagna with meat, baked chicken, French dip sandwich. Soup: beef and barley. Vegetables: whole green beans, butter squash, cut corn, black-eyed peas.

Friday

Chili competition — The Center Operations Directorate will host its sixth annual COD chili cook-off beginning at 5:30 p.m. Oct. 21, at the Gilruth Center. Cost is \$3 until Oct. 14 then increase to \$5. Tickets are available from COD personnel. For additional information, contact Ginger Gibson, x30596.

Cafeteria menu — Special: fried chicken. Total Health: vegetable lasagna. Entrees: broiled cod fish, beef stroganoff, vegetable lasagna. Vegetables: steamed broccoli, carrots vichy, Italian zucchini, breaded okra.

Swap Shop

slightly used, \$300. Magdi Yassa, 333-4760 or 486-0788.

Photography

Darkroom equipment, enlarge w/color head & lens, digital enlarging timer, safelight, tanks, reels, trays, \$350/all. Phil, x34532 or 538-1744.

Musical Instruments

Percussion Plus snare drum w/stand, chrome, never used, \$100. 488-2283.

Pets & Livestock

Free female Boxer-Chow mix to a good home, 1 yr old, very friendly. 991-0821.

Lost & Found

Found 1 post bearing with semi-precious stone in bldg 1 parking lot on 9/26/94, call and describe to claim. x48640.

Household

Large mauve recliner, solid-wood desk, wood dinette table; microwave, \$50/ea. Dave, 332-4775.

Wards 14.5 cu ft frostless refrigerator/freezer, \$150 OBO; Fitness Master FM320 skier w/electric readout, \$150. Kim, 333-4743 or 332-0791.

Formal dining table & 6 chairs, \$1,350; W/D, \$65/ea; fruit press, \$300; 55 gal fish tank/stand, \$175; king sz mattress, \$40, other stuff. 474-3820.

Desk, white, 65" x 30" with credenza & 3-drawer file cabinet, \$100. x39588 or 487-1883.

Brown leather sofa 86"L, \$275; chair & ottoman, \$175; wrought iron table & 4 chairs, \$65; ping pong table, \$20. 332-2416.

Oak dining table, 6 chairs & china cabinet, new \$3.6k sell \$950; 3 piece entertainment center, 86" x 78", new \$950 sell \$400. 488-8421.

Super single waterbed, new water heater, padded rails, bookcase, ex cond, \$50. 996-8425.

Antique solid oak table, 48" x 48", ex cond, \$350; arm chair, sm, \$10; Walton exercise bicycle, \$50. 488-5564.

Boys bedroom furniture, all wood, set includes dresser, desk, 2-door cabinet, corner unit & 2 hutch's, good cond, \$225. Donna, 486-4855.

Working refrigerator, \$40; washing machine, not working \$20. Jackie, 332-0610.

King sz waterbed, 12-drawer pedestal, lg bookcase hdbd w/mirror, sheets, heater, padded rails, \$300. x45228 or 331-1722.

Solid wood BR set, full sz bed w/mattress, boxsprings, dresser w/hutch/mirror & nightstand, \$700; Lane cedar chest, \$150; both in ex cond, Sunbeam 12 spd table top mixer, \$100 OBO; 2 black velvet formal dresses, long, \$125; short \$50, sz 6; oak entertainment center wall unit, \$250. 486-2414.

Washer/dryer, 4.5 yrs old, \$200. 280-2237 or 486-0844.

Persian rugs, finest quality, wool & silk with Nain Pattern. 333-6870 or 486-1786.

Refrigerator/freezer, GE Hotpoint, 21 cu ft, white, \$150. Ben, x30755.

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

Large upright freezer, \$100. 488-3700.

Hamilton gas dryer, good cond, \$50 OBO.

x40213 or 554-4140.

Full sz mattress, boxspring/frame, good cond, \$40; full sz comforter, 2 sets of sheets, \$40; full sz electric blanket, \$30. Mary, 332-9323.

Round pedestal table, wood w/finish, 42" dia, ex cond, \$150; Maytag W/D, lg capacity, 2 spd, like new, \$700. Rita, x32686.

Solid wood headboard for queen size bed, \$45. Rich, x38219 or 480-2570.

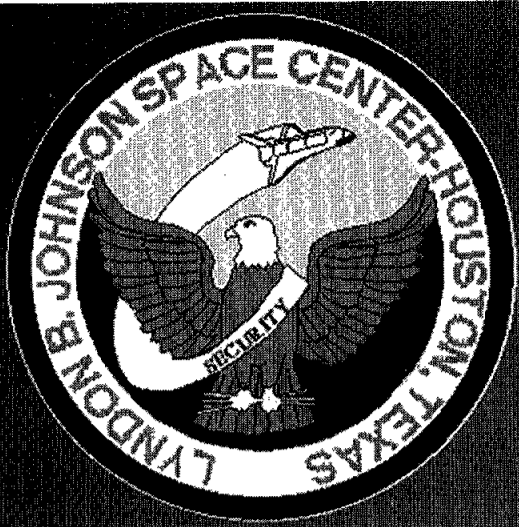
Wanted

Want personnel to join VPSI vanpool, West Loop Park & Ride lot at 6:55 am to NASA/contractors. Richard Heeterdicks, x37557 or Ed Rangel, x36124.

Want personnel to join VPSI vanpool departing Meyerland Park & ride lot at 7:05 a.m. for JSC. Vanpool consists of on-site personnel working the 8 a.m./4:30 p.m. shift, currently have 15 good members, and looking for 2 to 3 more. Travis Moebe, x45765 or Don Pipkins, x35346.

Want carpools from Hobby Airport area. Bill, 212-1323 or 641-4941.

Want roommates to share house, non-smokers, 4-2-2, Sagemont subdiv, S. 45 & S. Belt 8, \$200/mo + util. Minh, x37492 or 484-2456.



A fresh look at JSC security

A handy security guide for employees

Editor's note: This is a brief reprise of the information contained in the annual JSC security refresher briefing. Save this page and post it in a convenient place where it will be a reminder of the steps JSC employees can take to safeguard technology and property on site. Reading this briefing does not take the place of attending the annual security refresher.

governments of other countries. Even unclassified documents not yet released to the public are critical. Foreign nations attempt to gain access to this information before it is released.

- Analyze the threat — Who are our adversaries? The answer is anyone who can gain economically from our technology. Contact the Security Branch for more information or assistance.

demands.

- Implement countermeasures — Know who is on the other end of a phone or fax line before sending information.

These simple measures can help prevent the loss of American technology and American competitive advantage. According to King, competing against our own technology, could mean the loss of American jobs.

trend in workplace violence.

Supervisors and coworkers have an opportunity to spot warning signs and early aberrant behavior.

There are distinct warning signs employees and supervisors can look for to identify the threat of workplace violence:

- Verbal threats made by employees.
- Physical actions such as intimidation, or flashing a concealed weapon.
- Obsession or holding a grudge.

Learning how to protect NASA technology and America's competitive position in the world are among the messages JSC employees will hear at the Security Division's annual security refresher briefing.

The briefings are conducted every year by JSC's security specialists and attendance by JSC employees is mandatory.

"Every employee has a responsibility to maintain security at JSC," said Security Specialist Cindy King. "The content of our briefings has changed a little to include technology transfer and workplace violence, but safeguarding government information and property is still a major component of JSC security operations."

Indeed, the focus of this year's briefing is Operations Security, or OPSEC. OPSEC plans help the government and its contractors protect America's industrial secrets and capabilities by denying access to that information to countries or groups considered "adversaries." According to Rusty Capps, the FBI's National Coordinator of Development of Espionage and Counterintelligence Activity, "hundreds of thousands of people are out of work because American companies have lost market share as a result of losing some particular piece of technology."

Some of that technology loss occurs through dissemination of documents openly available to the public, including foreign competitors. Other times, the loss is the result of sloppy computer security measures or overheard conversations.

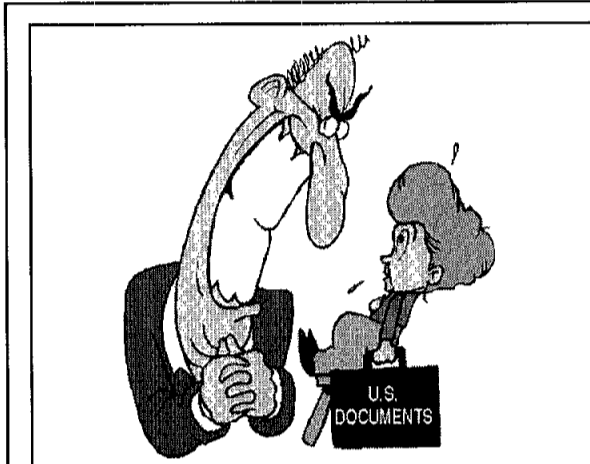
As examples, the FBI reports that Fuji learned of Kodak technology for disposable cameras through open source documents and as a result released a very similar camera only one day after Kodak introduced its new line.

Even more, the high-technology thriller *Hunt for Red October* contained some information that author Tom Clancy "made up" based on conclusions drawn from publicly available information. Clancy later was told that his conclusions were "right on target" and contained highly classified information.

What can JSC employees do to maintain security at work and preserve America's place in the global community?

The Security Branch recommends five simple steps to maintain security:

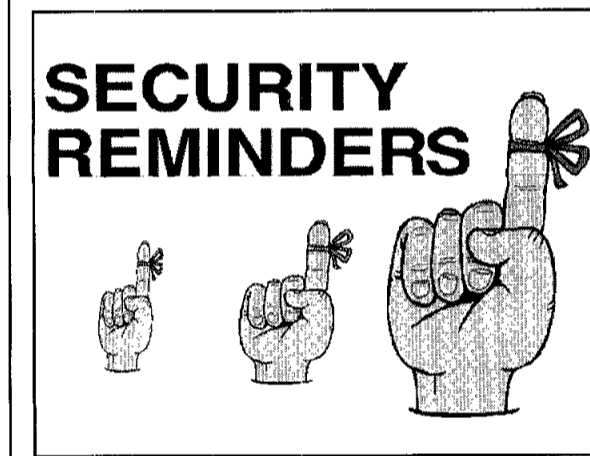
- Determine critical information — All government agencies have information critical to the



• Understand the importance and applications of even unclassified documents used at JSC. Our technological advantage may be at risk.



• Protect classified and unclassified material. If you are unsure of how to handle material, contact the Security Branch.



• Annual security briefings remind all JSC employees to remain focused on their individual security responsibilities.



• Remember to badge all visitors to JSC. All foreign nationals must be cleared through the appropriate security contacts.

- Analyze vulnerabilities — Be alert when you travel. That person sitting next to you on the plane may be asking just a few too many questions. Computer security is another major concern here. The most common passwords used are "money," "sex," "password," or the operator's first name. Knowing that, an adversary can gain access to computer files by using a company phone book, a distribution list, or a call to the central computer service center. And of course, employees should never give out their password over the phone.

- Assess risk — Employees should ask "what is the value of critical information compared to the cost of protecting it?". Protect the information to the level its vulnerability

Another subject covered during the refresher briefing is workplace violence. Violence in the workplace is increasing and murder is now the ranking cause of death at work.

Workplace violence has tripled in the past 20 years. People use violence as a shortcut to getting what they want. And violence, as a means of expression, has found its way into the workplace.

Violence in the workplace may come from an employee, former employee, estranged spouse, jilted suitor or someone outside the company with a grudge. Workplace violence generally is not spontaneous. Social and economic changes also contribute to the upward

trend in workplace violence. Supervisors and coworkers have an opportunity to spot warning signs and early aberrant behavior. For after hours security questions, contact the Security Dispatcher, at ext. 34658.

- Drive safely on site. Most vehicle accidents on site are preventable. The most common cause of accidents on JSC property in 1993 was "improper backing." King says it happens all the time; employees back down an aisle because they are closer to the entrance than the exit. Prevent "fender benders" and other accidents on site. Slow down and follow traffic regulations at JSC. □

Employees should remember:

- All foreign national visitors must be approved by NASA Headquarters and coordinated by the Security Branch, except for Space Station visitors.

The space station point of contact is Ann Murray, ext. 48133. For JSC foreign national visitors, contact Charlyne Minick at ext. 34068 and William Hayden, mail code IRD at Headquarters. Allow 10 days for approval of short-term visits.

- Protect classified information. Employees who hold security clearances must make sure they release classified material only to personnel with a clearance level at least equal to that of the information and have **A NEED TO KNOW**. Close and lock security containers when unattended and at the end of each day. If classified material is found unattended or

1994 ASRB Make-up Schedule

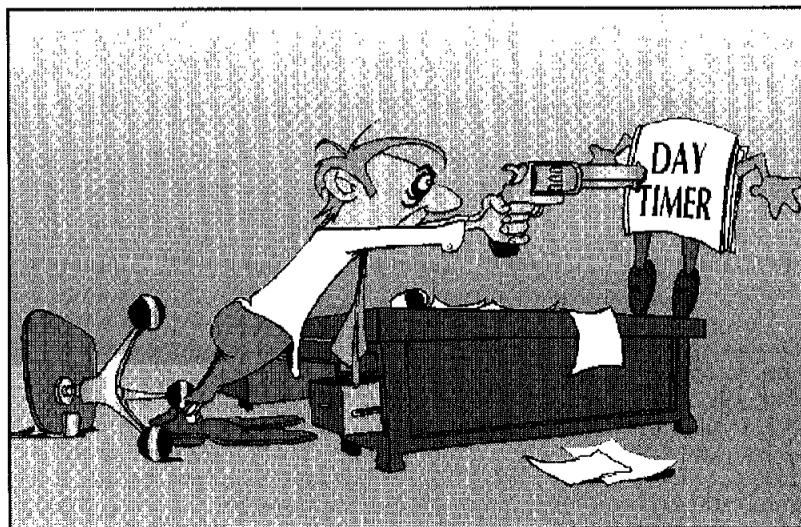
Monday, October 24

9:00 a.m.
10:00 a.m.
1:00 a.m.

Tuesday, October 25

9:00 a.m.
10:00 a.m.

All make-up briefings will be held in the Building 2 Teague Auditorium.



Workplace violence is on the rise. Employees and managers should learn to recognize the warning signs of employee stress. Professional assistance to defuse potentially explosive situations is available through Human Resources or Security.

Security Office Contacts

Branch Chief, Kenneth M. Ramke	x34055
Group Lead, Personnel Security & Investigations, Robert Nooney	x34019
Acting Group Lead, Access Control and Traffic Management, Patti Hunter	x34038
OPSEC, Dave Davenport	x34727
Foreign National Visits, Charlyne Minick	x34068
Security Education, Cindy King	x33251
Classification Guidance, Michele Ladrach	x36096
Security Branch Receptionist	x34441
Security Dispatcher	x34658

Gillette heads Equal Opportunity Programs

Estella Hernandez Gillette has been named director, Equal Opportunity Programs Office.

Gillette most recently served as deputy director of the Equal Employment Opportunities Office. She joined JSC in 1966 working in the Engineering Directorate. Gillette held progressively responsible positions in a wide range of organizations including Space and Life Sciences, Human Resources, and the Flight Crew Operations Directorate.

Gillette also supported the NASA Headquarters Office of Small and Disadvantaged Business Utilization in 1993 helping to define the function and role of that office.

Walker leads support operations

Joel Walker has been named acting chief of Support Operations Division of Center Operations Directorate.

In this position, Walker will lead the new organization that combines the Logistics Division and Security Division.

COD hosts chili cook-off

The Center Operations Directorate will host its 6th annual COD chili cook-off on Friday at the Gilruth Center.

Notable judges for this year's cook-off are JSC Director Dr. Carolyn Huntoon, and her executive assistant, Sue Garman; Human Resources Director Harvey Hartman; Safety, Reliability and Quality Assurance Director Charles Harlan; Equal Opportunity Programs Director Estella Gillette; Astronauts Lacey Veach, and Catie Coleman; Don Puddy, special assistant for Joint U.S. Russian Programs; Ed Schroeder, Galveston Party Boat; Mike Pontello, Blinds & Draperies; John Herrmann, Mayor of Webster; and Steve Phelps, Precinct 8 Justice of the Peace.

Showmanship skits begin at 5:30 p.m. and public chili tasting at 7 p.m. Tickets are \$3 through today, but starting Monday the ticket price increases to \$5. Tickets are available from all COD personnel.

Tickets provide entry, souvenir button, tasting kit, refreshments, snacks, vote for "People's Choice Best Chili," entertainment, and door prize drawings. For more information contact Ginger Gibson, x30596.

Guidry honored by NTA

Carla Guidry, a payload integration engineer in the Data Reconfiguration Office recently received the National Technical Association Distinguished Service Award.

The award was presented during the NTA national conference in Washington D.C. Guidry was recognized for her efforts as chairperson of a national science competition for students sponsored annually by NTA. She joined the organization in 1989.

Guidry was cited for her "commitment and tireless effort in encouraging young people to pursue fields of science, engineering and mathematics."

Garza receives award

Paula Garza recently received the Marilyn J. Bocking Award for Secretarial Excellence.

Garza supports the Simulator and Training Systems Division and was cited for her "overall productivity and professionalism." Garza



Gillette

Walker

Guidry

Garza

Authier

received the award in August.

According to the award nomination, Garza is "held in highest regard by management, peers and other personnel" due to her "flexibility and proactiveness."

Authier is Bocking winner

Maryalice Authier is the September recipient of the Marilyn J. Bocking Award for Secretarial Excellence.

Authier supports the Project Integration Office of Space Shuttle Systems Integration. According to the award nomination, Authier "has demonstrated excellent secretarial skills and provides outstanding support" to the entire office.

The nomination also cites Authier's "highly proficient technical skills, professional and friendly attitude and time critical support" for the success of the organization.

People

JSC television channels get new structure

JSC's closed-circuit television channels are being reorganized to a more reasonable and suitable arrangement for viewers and customers.

The major changes are that the JSC events calendar

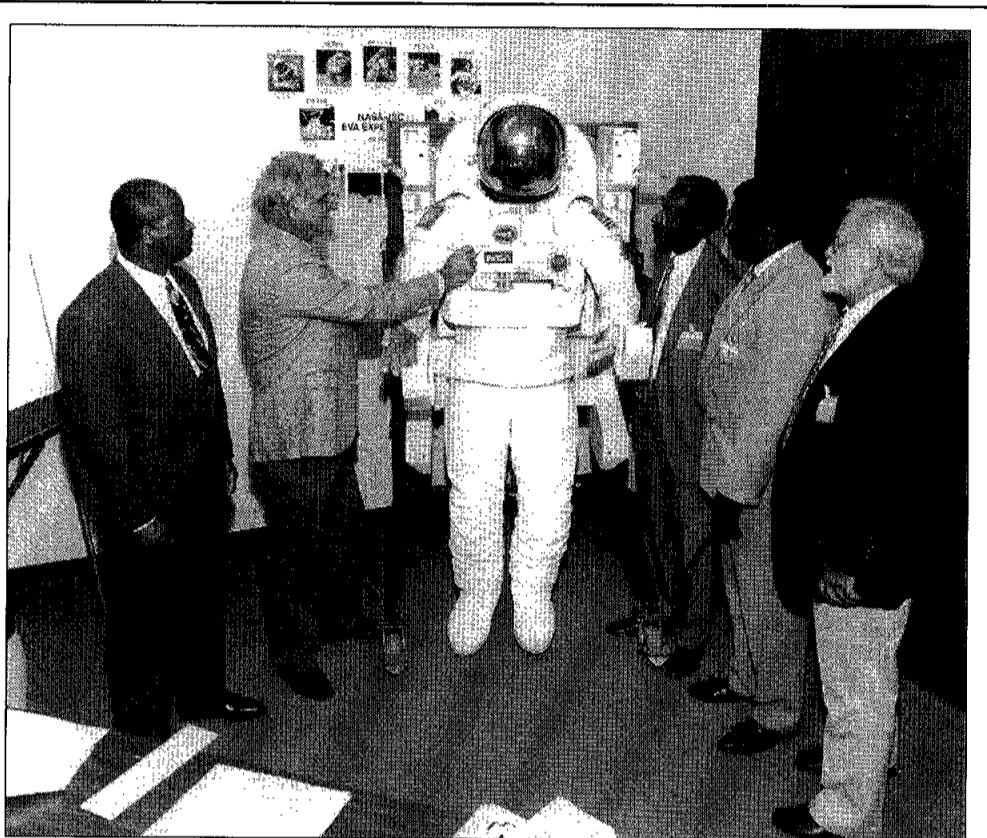
moves from channel 26 to 12. CSPAN and CSPAN2 have moved from 23 and 24 to 16 and 17, respectively. National Technological University training has been moved from channel 9 to 18. The program guide has moved from channel 10 to 24.

New programs have been added, too. Viewers can access PBS on channel 8 and The Weather Channel on 10. A Space Station Program Office meeting schedule will be on channel 25.

Mission support channels will include: channel 3 for mission downlink video, channel 5 for the Distributed Earth Modeling System, and channel 6 for the mission clock. Channels 5 and 6 will revert to requested programming during post-mission, while channel 3 will change to mission photography for about two weeks after landing and then return to requested programming.

Channel Guide

- 2 KPRC (NBC)
- 3 Requested Programming/Downlink
- 4 NASA Select Television
- 5 Requested Programming/DEMOS
- 6 Requested Programming/Mission Clock
- 7 Weather Radar
- 8 KUHT (PBS)
- 9 Interactive Weather
- 10 Weather Channel
- 11 KHOU (CBS)
- 12 JSC Events Calendar
- 13 KTRK (ABC)
- 14 Cable News Network
- 15 CNN Headline News
- 16 C-Span
- 17 C-Span2
- 18 NTU Training Courses
- 19 U. of H. Training Courses
- 20 Requested Programming
- 21 Requested Programming
- 22 Requested Programming
- 23 Requested Programming
- 24 Program Guide w/House Clock
- 25 SSPO Meeting Schedule
- 26 Test Signals (Color Bars)
- 27 Test Signals (Various)



JSC Photo by Benny Benavides

OPPORTUNITY KNOCKS—Jim LeBlanc, chief of the EMU and EVA Systems Branch, explains the features of the shuttle space suit to participants at JSC's first Small Disadvantaged Business Day. From left are Mark Taylor of Jaymark Engineering Corp., LeBlanc, John Miller and Charles Maddox of Ion Electronics, and Jim Peacock of Peacock Associates Inc. Forty-five companies from around the U.S. gathered at the Gilruth Center Sept. 23 to look for future business opportunities. Another conference is planned in Nov. 18; details will be available soon.

STS-68 meets or beats success of first SRL flight

(Continued from Page 1)

clouds; some places are covered all the time. But with radar, you see right through the clouds."

Endeavour's crew—Commander Mike Baker, Pilot Terry Wilcutt and Mission Specialists Jeff Wisoff, Steve Smith, Dan Bursch and Tom Jones—worked in two shifts to provide 24-hour-a-day radar observations. The majority of the crew's duties were performed at the windows of *Endeavour* as they reported storms and smoke of interest to MAPS scientists and photographed radar observation sites.

The radar images and MAPS data both complemented the data obtained on the SRL-1 flight in April, giving scientists a look at seasonal changes. The view of seasonal differences in the observations will help scientists differentiate between natural and man-made changes in the environment.

"All around its been a superb mission. It's at least matched the success of the first one I was on last April and we look forward to new results from this suite of instruments in the future," said Jones, who served as a mission specialist on STS-59 in April and payload commander on STS-68.

"We have a really huge amount of data to sift through that tells us about the Earth's environment," he added. "We've got new facts about the geology of the Earth and the processes that affect the surface of the Earth. We've got a new technique called interferometry, demonstrated on this mission, that can tell us about the topographic shape of the Earth. We also have some amazing radar imagery of dynamic phenomena on the Earth—processes on the Earth that are familiar to us—changes in the forests,

changes in agriculture, changes in the soil moisture and snow content of the watersheds that we all live in. With the MAPS instrument providing its full mission of data, we have a new understanding of how the Earth's atmosphere cycles carbon through it."

Endeavour's landing was diverted to Edwards Air Force Base after poor weather in Florida forced flight controllers to "wave off" the deorbit opportunities to the Kennedy Space Center. The flight back to Earth, however, was flawless. *Endeavour* touched down at 12:02 p.m. CDT with a mission elapsed time of 11 days, 5 hours, 46 minutes.

The six crew was welcomed home by friends, family and co-workers at Ellington Field late Tuesday. The STS-68 crew post-flight employee briefing is scheduled for 3 p.m. Oct. 28 in Teague Auditorium.

Holloway to head new Phase One Program Office

(Continued from Page 1)

on board Mir for long-duration flights; coordinating the manifest of research hardware and instruments for the Russian Spektr and Priroda science modules; identifying ground support requirements related to Phase One; and integrating the NASA and Russian launch schedules.

In his new position, Holloway will report directly to the associate administrator for the Office of Space Flight at NASA Headquarters. He will also coordinate extensively with the space station and space shuttle program managers.

"We are totally committed to the success of this Phase One Program, and I am sure that the combination of resources here in NASA and in the Russian space program

will produce a joint program that we will be proud of," Holloway said.

The Phase One activities will pick up speed in 1995 beginning with a rendezvous and fly-around of the Mir station by the shuttle *Discovery*, currently scheduled for February as STS-63. The crew includes Cosmonaut Vladimir Titov, who has been training at JSC for the last year.

In March, U.S. Astronaut Norm Thagard is scheduled to be launched in a Russian Soyuz spacecraft with two cosmonauts to being a three-month tour of duty on Mir. Thagard, who along with his backup, Astronaut Bonnie Dunbar, has been training in Russia since February. During his stay on Mir, he will conduct a variety of life sciences experiments that will provide U.S. investigators with the

first long-duration exposure data since Skylab in the late 1970s.

Thagard's mission will end in late May or early June when the Space Shuttle *Atlantis*, carrying the newly installed docking mechanism, docks with Mir for the first U.S.-Russian docking operation since Apollo-Soyuz in 1975. The orbiter will remain attached to Mir for five days of joint scientific operations before returning home with Thagard and his Russian crew mates and leaving behind two cosmonauts on Mir.

Later in the year, during STS-74, *Atlantis* will revisit Mir to install a new docking module designed to improve the ease of future joint operations.

Phase One includes a minimum of seven missions to Mir and calls for the flight of five astronauts on the

Russian station for a cumulative time of about two years.

Holloway came to JSC in 1963 and served as the chief of the Flight Activities Section from 1966 to 1973. In 1973, he became chief of the Flight Activities Branch, and in 1978, he became ascent/orbit flight techniques manager for the first space shuttle mission. Holloway was flight director for early shuttle missions, and in 1985, became chief of the Flight Director's Office.

From 1987 to 1989, he served as mission operations director, and then assistant director for the Space Shuttle Program for the Mission Operations Directorate until 1992, when he was named deputy manager for program integration for the Space Shuttle Program.

Space News Roundup

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