



**Direct interview**

Dr. Carolyn Huntoon, JSC's new director, shares her views on the challenges facing JSC and NASA. Story on Page 3.



**King visit**

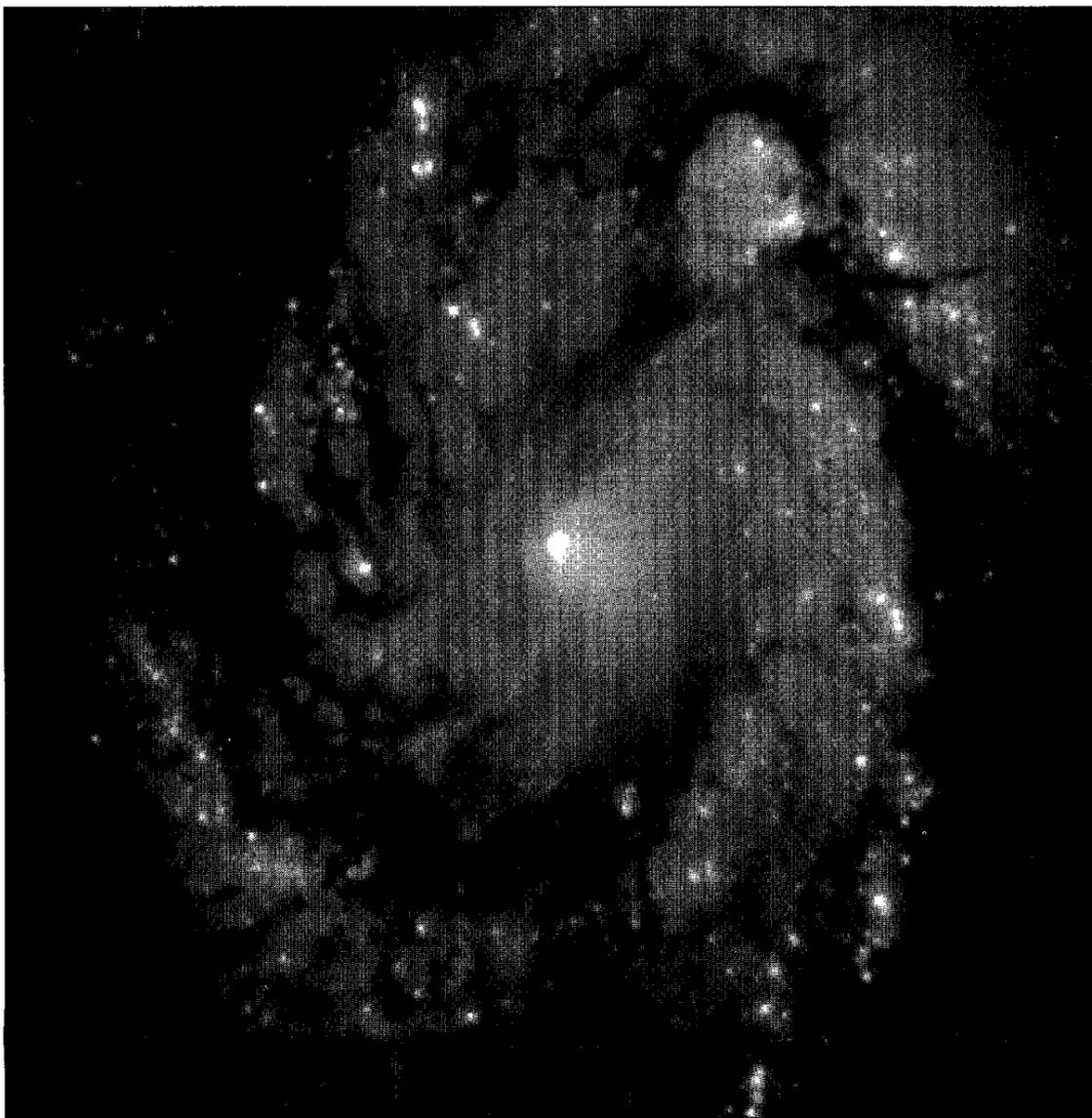
Rep. Craig Washington helps JSC employees celebrate the Rev. Martin Luther King's birthday. Photo on Page 4.

# Space News Roundup

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No. 3



Space Telescope Science Institute Photo

The core of the galaxy M100 shows up with striking clarity in one of the first Hubble Space Telescope images released after the December STS-61 servicing mission. This image was taken Dec. 31, 1993, with the second generation Wide Field and Planetary Camera and has not undergone any computer image reconstruction techniques. The WF/PC-2 high resolution channel allows the telescope to cleanly resolve faint structures as small as 30 light years across in a galaxy tens of millions of light years away from Earth. Galaxy M100 is one of the brightest members of the Virgo Cluster. Hubble scientists are beginning observations as checkout of the telescope continues.

## New images stir pride at JSC

By Eileen Hawley

Images released from the newly refurbished Hubble Space Telescope stirred feelings of pride and enthusiasm among the JSC community as the scientific potential of the orbiting observatory was revealed.

Workers at JSC have been involved with the project for years as researchers, trainers, operations experts and crew for the two missions that deployed and visited HST.

"I have said before that this mission is an example of how effectively the entire NASA team can work together toward a common goal," said Dr. Carolyn Huntoon, JSC director.

"I think the entire JSC family can be justifiably proud of their efforts

in contributing to this success," she added.

At JSC, the feelings of pride and accomplishment were evident as elated workers caught the first sight of the Hubble images.

"The vision of humanity is cloudy at best when it comes to looking back into our history or forward into our future a long way," said Brewster Shaw, director of Space Shuttle Operations. "Space provides us some insight into both of these visions. It's fun to lie on your back on the grass at night and consider the universe, to wonder what's up there. Hubble clears up our vision and allows us to have better dreams."

Deputy Director of Flight Crew Operations Steve Hawley was on

board *Discovery* in 1990 when HST was deployed. "As a member of the JSC team, I am gratified we were able to accomplish all the tasks we set out to with this recent mission. As a member of the astronomical community, I am gratified we will be able to realize the full potential of HST and look forward to the knowledge we will gain from observations conducted with it."

Loren Shriver, who commanded the first HST mission and is now manager of launch integration at Kennedy Space Center, said the successful servicing "opens up the whole range of observation we hoped for, and the mission proved what the program said all along—

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## MCC legend to retire

Kranz to leave JSC in March after 36 years

By James Hartsfield

Mission Operations Director Eugene F. Kranz will retire March 3 after 36 years of government service. His deputy, John O'Neill, will become acting director upon Kranz's retirement.

Kranz joined NASA in 1960 as one of the original Project Mercury assistant flight directors and has been intimately involved in the development of flight control operations for all U.S. manned space flights.

Kranz played a pivotal role in the Apollo program and was the flight director for the first lunar landing on

Apollo 11. He also led the successful efforts to return the crippled Apollo 13 spacecraft and its three astronauts safely to Earth after an explosion disabled the craft en route to the Moon in 1970.

"Gene has served his country and NASA well and has earned a place in history," said Dr. Carolyn Huntoon, JSC director. "He was among the handful of people who invented manned space flight and he bears much of the responsibility for assembling and leading the organization which planned and controlled some

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Eugene Kranz

## Scientists hail initial images from Hubble

By Kelly Humphries

Four years and five space walks after it was first put into orbit, the Hubble Space Telescope is now fully operational and capable of producing images "as perfect as engineering can achieve and as the laws of physics will allow."

NASA Administrator Daniel S. Goldin, backed by Dr. John H. Gibbons, assistant to the President for science and technology, and Sen. Barbara A. Mikulski, D-Md., chair of the VA, HUD and Independent Agencies appropriations subcommittee, last week declared the STS-60 mission to service the Hubble Space Telescope successful in correcting the vision of the telescope's optical components.

The announcement, accompanied by the first new images from HST, followed the initial five weeks of engineering check-out, optical alignment and instrument calibration.

Pictures were released from the two cameras that received corrective optics during the servicing mission—the Wide Field/Planetary Camera II and the European Space Agency's Faint Object Camera, and displayed side-by-side with images taken by ground telescopes and the uncorrected HST instruments. The Faint Object Spectrograph is still being aligned, and the Goddard High Resolution Spectrograph's corrective optics arm was to be deployed this week.

Jim Crocker, HST Science Institute team leader for the Corrective Optics Space Telescope Axial Replacement, said the corrected images are as perfect as engineering can achieve and as the laws of physics will allow. The instruments are now so sensitive that if HST were in Washington, D.C., they could detect a firefly in Tokyo and that a pair of fireflies would be distinguishable if they were 10 feet apart.

"It's been a small change for a mirror, but a giant leap for astronomy," said Dr. Chris Burrows of the Space Telescope Science Institute in Baltimore, Md.

Burrows said the telescoped now has 50 percent better resolution than before, more ability to see very faint stars, greater ability to contrast faint objects against bright objects,

and an improved ability to measure and compare those measurements to mathematical models.

From its position above the distortions of Earth's atmosphere, Hubble has been producing groundbreaking results since 1990 in spite of a spherical aberration in its primary mirror. The mirror was ground perfectly, but to specifications that turned out to be less than perfect because of faulty test equipment.

In early December, space walkers Story Musgrave, Jeff Hoffman, Kathy Thornton and Tom Akers, replaced the Wide Field/Planetary Camera with an advanced version fitted with corrective optics and installed COSTAR, which is correcting the vision of the other instruments. In addition, Commander Dick Covey, Pilot Ken Bowersox and ESA astronaut Claude Nicollier worked with the space

walkers to replace damaged solar panels and malfunctioning gyroscopes and magnetometers.

"This is phase two of a fabulous, two-part success story," Goldin said. "The world watched in wonder last month as the astronauts performed an unprecedented and incredibly smooth series of space walks. Now, we see the real fruits of their work and that of the entire NASA team."

"Men and women all across this agency committed themselves to this effort. They never wavered in their belief that the Hubble Space Telescope is a true international treasure," Goldin said.

Mikulski, who unveiled two new HST pictures at the press conference, said, "I am absolutely delighted that Hubble is fixed and can see better than ever. This is tremendous news. What a wonderful victory this is for the Hubble team of astronauts, astronomers, scientists and engineers. Together they are moving American science and technology into the 21st century with exciting new opportunities for scientific and economic progress."

HST Program Scientist Ed Weiler said the first images from the new, improved WFPC-II were received at 1 a.m. Dec. 18 at the Space Telescope Science Institute. By New Year's Eve, the first engineering images taken through COSTAR,

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## Shuttle managers meet Tuesday to review *Discovery's* readiness

By James Hartsfield

Preparations of *Discovery* continue to enter the final stretch at Kennedy Space Center's Launch Pad 39A this week, and shuttle managers will meet Tuesday for a final flight readiness review.

Following the final review, managers will set a firm launch date for STS-60, perhaps as early as 6:10 a.m. CST Feb. 3. For a Feb. 3 launch date, the countdown would begin in the early hours of Jan. 31. Technicians performed a final



check of STS-60's primary cargo, the Wake Shield Facility, and its connections to *Discovery* this week, called the interface verification test. Other work included a test of the main engine pneumatics and a helium leak test of the main engine plumbing. Last week, the STS-60 crew—Commander

Charlie Bolden, Pilot Ken Reightler and Mission Specialists Jan Davis, Ron Sega, Franklin Chang-Diaz and Sergei Krikalev, the first cosmonaut

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# Ticket Window

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

Moody Gardens — Discount tickets for two of three different attractions: \$9 Houston Rodeo — A limited number of tickets are on sale.

Entertainment '94 Coupon Books — Bay Area/Galveston/Downtown or FM 1960/Downtown: \$30 each, \$1 off first book for civil servants. Gold C Books: \$8

Space Center Houston — Discount tickets: adult, \$7.50; child (3-11), \$4.50; commemorative, \$9.95.

Metro tickets — Passes, books and single tickets available.

Movie discounts — General Cinema, \$4.50; AMC Theater, \$3.75; Loew's Theater, \$4.

Stamps: Book of 20, \$5.80

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# Gilruth Center News

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

**EAA badges** — Dependents and spouses may apply for photo identification badges from 6:30-9 p.m. Monday-Friday. 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. Jan. 27. Pre-registration is required. Cost is \$5.

**Defensive driving** — Course is offered from 8:15 a.m.-3 p.m. Saturday. Next class is Feb. 5. 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. Cost is \$24 for eight weeks.

**Aikido** — Martial arts class meets from 5-7:30 p.m. Tuesdays and 6:15-8:15 p.m. Wednesdays. Black Belt class from 6-8 p.m. Fridays, requires instructor permission. Cost is \$25 per month.

**Stamp club** — JSC Stamp Club will meet from 7-9 p.m. every other Monday. For more information, call Dianne Kerkhove at 554-2764

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

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# Swap Shop

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

## Property

Sale: LC/Brittany Bay, 3-2-2, lg kitchen, DR, family room, and mast bath w/oval tub & shower, \$86.5k. David, 282-3827 or 554-5514.

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

Sale: Taylorcrest, 4-3-2.5D. southern colonial, 3200 + sq ft, pool/spa, water view, island kitchen, balconies, art studio, \$290k, 4% co-op, Richard x30271 or 326-4963.

Rent: Room in Seabrook, 3 mi from JSC, price neg. 474-1455.

Sale: Leon county, 25 wooded ac, 15 min from Hill Top Lakes resort, \$995. per ac, lot on Houston SouthSide airport, \$3,495. 333-2468.

Sale: Meadow Green, 4-2.5-2, 2.9 sq ft, lg deck, both formal, wet bar, FPL, \$133k. 486-5246.

Lease: Egret Bay condo, 1-1-2 cp, FPL, W/D/micro, boat ramp, avail immed, \$450/mo +dep. 488-5457.

Rent: Taos NM, 7th day free, sleeps 4. 532-2082.

Sale: Hill County property, near Austin/Dripping Springs, wooded, undeveloped, 26.87 ac, \$50k. Robert, x32597 or 332-1734.

Sale: Pearlband, SouthWyck, 4-2.5-2, 2 story, game rm, formal DR, beveled glass front dr, oversized lot, sec sys, ex cond. 831-1791 or 997-1664.

Rent/Sale: House near new Walmart, 3-2.5, \$1.2k/mo. 998-8350.

Rent: Winter Park, CO, fully furn, 2-2, sleeps 6. 488-4453.

Rent: Condo Basalt, CO, 20 min to Aspen, 3-3.5, \$130/dly/\$800 wkly. 505-527-2480.

Sale: Friendswood/Heritage Park, 3-2-2, 1850 sq ft, jacuzzi, both formals, FPL, ceiling fans, fenced, \$92.5k. 996-5076.

Rent/Sale: Nassau Bay, 4-2-2 waterview, gas heat, recently remod, fenced, patios, \$795/mo. Minh Do, 333-6806 or 484-2456.

Rent: Water front eff apt, near NASA, util pd except phone, furn or not, non-smokers only, \$395/mo. x48882 or 532-1725.

Sale: Clear Lake Shores, 3 BDR, water-front community, assum, \$8.9k. 538-1849.

Sale/Lease: Condo, 2-2, upstairs unit/w waterview, W/D, FPL, new paint & carpet. 532-4628.

Rent: New horse stalls 7/w 15 ac pasture, \$75/mo. 282-2810 or 554-6138.

## Cars & Trucks

'88 Honda Accord LX, 4 dr, ex cond, 67k mi, PW/locks, new brakes/tires, \$6,995. 483-2567 or 488-3314.

'88 Winnebago Elandan, 34', 32k mi, new tires, sleeps 6, 2 A/C's, 2 stereo's, microwave, CB, ex cond, \$35k. x33433 or 471-6175.

'86 Firebird, V-8, 305, midnight blue/gray

int, T-Tops. Nelda, 333-7686 or 332-5641.

'85 Nissan 300ZX, 5 spd, T-Tops, all options, 99k mi, ex cond, \$5.7k. Lisa, 333-6795.

'87 Nissan Maxima, wht, 106k mi, auto, sun roof, alarm, AC, \$4k. Tina, x39727 or 286-2628.

'72 Datsun 240Z, w/remanufactured 280Z eng, dual carbs, runs well, \$3,125. Russ, x45979 or 332-1769.

'92 Dodge Dakota, V-6, 5 spd, ex cond, low mi, camper incl, \$9,850. Phyllis or Lee, 862-5259.

'82 Olds Omega, runs good, \$1.4k. Sam, 333-7327 or 488-9742.

'74 VW Bug, rebuilt eng, good int, new stereo sys, \$2.5k. John, x49816 or 486-0097.

'92 Isuzu Rodeo, 17.7k mi, AC, cruise, cass, 5 spd, roof rack. x39120 or 992-7283.

'78 Dodge Colt, good mech cond, lots of mi, \$800. Jim, x47459 or 484-2817.

'86 Toyota Camry, 62k mi, all pwr, sun-roof, ex cond, \$5.1k. Jeff, 337-2784.

'86 F-150 XL Super cab, 351, auto, bedliner/caps, new brakes, ex mech cond. \$4.9k. 488-8126.

'82 Chevy PU, 3/4 ton, 71k mi, enclosed bed w/drs, \$1.9k. 339-1176.

'88 Toyota Corolla, 4 dr, AM/FM/cass, all pwr, low mi, ex cond, \$4.5k. x47350 or 334-6922.

Toyota Chinook RV, sleeps 4, self cont, \$3,995 or OBO. 333-2468.

'85 Subaru station wagon, beige, needs A/C work, 75k mi, \$1.2k. Jeff, 333-7010 or 482-5393.

'87 Nissan Pulsar, new eng, ex cond, \$3.5k. 333-6277 or 339-3562.

'84 Nissan 300ZX, 5 spd, silver w/T-Tops, 87k mi, \$4.2k. x39045 or 488-2676.

## Boats & Planes

22.5' Sea Ray Cuddy cruiser, 228 hp mer-cruiser I/O, Color Furuno depth finder, VHF, ex cond, \$8.5k. Mark, x38013 or 992-4132.

U.S. Yachts 22' sloop w/4.5 hp eng, 2 sails, galley, sleeps 5, ex cond, \$5,399. Russ x45979 or 332-1769.

23' Galaxy power boat w/trailer, well kept. 474-1455.

Laser sailboat, 13'-11" L.O.A, 76 sq ft sail, centerboard, no trailer, OBO. Jerry, x35226 or 333-2778.

38' shrimpboat, 6V92 diesel, 2 to 1 BW, hydr wrench sys, Loran, VHF, color depth meter, 4-60' nets, 4-32' nets, 3 oyster dredges, \$10k. Pat, x35180 or 326-3706.

18' VIP Vison, 130hp/OMC/I/O, trailer, all access, ex cond, \$9.9k. Jennifer, x38668 or 286-0507.

18' Prindle w/trlr, new sails, dbl trapeze, ex cond, \$1.4k, OBO; 22'4" Gulf Coast sailboat, fixed keel, main jib & spinnakers, 6HS Johnson, \$2k OBO. Greg, x35560 or 474-7634.

**Cycles**  
Suzuki 12 volt kids bike, 2 forward & 1 rever spds, 2 new batt, \$75 OBO. Bobby, x38823 or 337-4134.

'82 Goldwing Interstate 1100, ex cond, \$3k. 488-6526.

JSC

# Dates & Data

## Today

**Cafeteria menu** — Special: tuna noodle casserole. Total Health: steamed salmon steak. Entrees: steamed salmon steak, roast beef, baked chicken, steamed fish, Reuben sandwich. Soup: seafood gumbo. Vegetables: French cut green beans, cauliflower with cheese, green peas, black-eyed peas.

## Monday

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

## Tuesday

**Blood drive** — Loral will host a blood drive from 7-11:30 a.m. Jan. 25 at 1322 Space Park Drive and from 1:30-4:30 p.m. at 1816 Space Park Drive. For additional information, contact Ed Barela, 335-5023.

**PMA meets** — The Performance Management Association will host a membership awareness meeting Jan. 25 at the Gilruth Center. For additional information, call Ed Parks at x45375.

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

## Wednesday

**AFCEA meets** — The Armed

Forces Communications and Electronics Association meets from 11:30 a.m.-1 p.m. Jan. 26 at the Holiday Inn on NASA Road 1. Stephen Bales will discuss "Reducing the Cost of Space Operations." For more information, call Linda Hinton, 282-7682.

**Astronomy seminar** — The JSC Astronomy Seminar will meet at noon Jan. 26 in Bldg. 31, Rm. 129. Wendell Mendell will discuss an "International Observatory on the Far Side of the Moon." For more information, call Al Jackson, 333-7679.

**NMA meets** — The JSC Chapter of the National Management Association will meet at 5 p.m. Jan. 26 at the Gilruth Center ballroom. The program will be the American Enterprise Speech Contest, featuring local high school students. For more information, NMA members should contact their boosters; non-members may call Allison Kruest at 244-7115.

**Cafeteria menu** — Special: stuffed bell pepper. Total Health: stuffed bell pepper with creole sauce. Entrees: fried catfish with hush puppies, stir-fry chicken and rice, wieners and beans, Reuben sandwich. Soup: seafood gumbo. Vegetables: buttered rice, Italian green beans, corn O'Brien, peas and carrots.

## Thursday

**Russian speakers** — Practice Russian language skills from 11 a.m.-1 p.m. Jan. 27 in the Bldg. 3 cafeteria. For additional information, call Jack Bacon, x38725, or Amy Mendez, x38066.

**CLANG meets** - The Clear Lake Area Network Users Group meets at 6:30 p.m. Jan. 27 at the South Shore Country Club. For more information,

call Steve Henry, 483-2649, or Rod Wright-Holmes, 280-2195.

**AIAA meets** — The Houston section of American Institute of Aeronautics and Astronautics meets at 5:30 p.m. Jan 27 in the Gilruth Center. Maj. William West will discuss the "National Aerospace Plane." For additional information, contact Frankie Hap, 333-6064; Ardell Broussard, 283-1040, Mary Ann Bivona, 483-1350; or Sarah Leggio, 282-3160.

**Blood drive** — The first on-site JSC blood drive of 1994 will be from 7-11:30 am. and 1-3:30 p.m. Jan. 27 at the Gilruth Center. For additional information, contact Dan Mangieri, at x33003.

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

## Friday

**Cafeteria menu** — Special: meat sauce and spaghetti. Total Health: spaghetti noodles with turkey meat sauce. Entrees: rainbow trout, liver and onions, been cannelloni, pork and shrimp egg roll, Reuben sandwich. Soup: seafood gumbo. Vegetables: steamed broccoli, breaded okra, cut corn, black-eyed peas.

## Feb. 1

**Technology transfer** — A three-day conference on "Dual-Use Space Technology Transfer" begins Feb. 1 at Gilruth Center. For additional information contact I-Net, at 286-2102.

Bicycles: 22" Giant boys 1-spd, \$65; 26" Huffy girls 8-spd, \$30; 22" Huffy girls 1-spd, \$35; 16" Kent girls 1-spd, \$20. Ashley or Jim, 488-4188.

## Audiovisual & Computers

Nintendo, \$35, OBO. Paul, 992-1904.  
CD Deluxe pack for Multimedia IBM PC and compatibles, Chessmaster 300, Mavis Beacon Teaches Typing version 2.0, U.S. Atlas version 3.0, and World Atlas version 3.2, \$95. 244-5035.

RCA Pro 8 video camera plus access, like new, \$500. 482-6879.

Tandy 1000 SX IBM-compatible, color computer, prntr, and software, \$250; external 3.5" FD for Grid laptop, \$65; Robotics 9600 bps modem, \$85. Keith, 282-3666 or 332-6751.

JVC cass player, stereo recorder, was \$250, now \$45; Hitachi turntable, \$75; Technics single CD player, needs repair, \$20. Jim, x39229 or 482-873.

Two 12" Rockford Fosgate Woofers, w/stereo sep and tuned ported box w/tweeters, \$150; 200 watt amplifier, LearJet, \$50. Sue, 480-5027.

ADC sound shaper, 5 band graphic equalizer, \$50; Pioneer SX650 recvr, 35 W/CH, multiple aux inputs, \$100. 482-3428.

Uniden CR-2021 communications recvr, full coverage, SSB, dig readout, memory presets, \$85. Robert, x34397 or 480-3358.

386sx16 computer, 2 FD, mono-monitor, 2400 bps modem, game card, DOS 6.2, etc. \$350. OBO. Andrew, 486-0835.

PRO-39 handheld police scanner, recv VHF, UHF, Hi-Lo-Air, 30 MHz-960 MHz, recharge, 200 channel memory, chgr incld, \$155. OBO. Ted, x33277 or 282-3926 or 474-9569.

UNIDEN RD9XL X- & K-band radar detector, OBO. Jim, 244-5068.

## Musical Instruments

Fender Stratocaster electric guitar w/pratice amp, OBO. 486-4958.

Thomas/Minstrel 130 Organ w/Mini-Mate Rhythm sect, owners man & music books, \$400. 409-925-5158.

## Pets & Livestock

Free 1 pr African Ring Doves, 1pr Wht Indian Ring Doves, must have own cages. Christie, 333-7484.

Whippet, Male, AKC, Brindle, 1 yr old, all shots, neut, \$300. Doug, x48851 or 486-7412.

## Household

Top mount refrig/freezer, J.C. Penny, approx 20 cu ft, good cond, \$80. Vicki, 283-0278 or 335-1287.

Refrigerator, 18 cu ft, Harvest gold, works great, \$125. Mike or Dana, x34535 or 554-6960.

Rattan rocker, foot stool, and papasan chair, bl cushions, \$100 OBO. 474-3438.

Thomasville "Fisher Park" qn sz bed, Pecan 4 poster, like new, \$575. Linda, 488-6480.

Round smoked glass top dinette set, 42" and 4 chairs, rust colored, 1 chair needs seat

replaced, \$50 OBO. x30767 or 482-4826.

Lg stereo cabinet, solid wood, glass drs, lighted, \$500 OBO. 488-3341.

Scandinavian sofa, 2 pc, blue, L-shaped, \$125. 482-5393.

Sectional sofa/qn sleeper, \$750; qn sz waterbed set, \$1,595; SuperNintendo & games, \$395; oak dinette w/chairs, \$395; TV, \$150; dbl sz BR furn, \$395. Jim, x48535 or 480-8615.

Comtempo sofa, wht/lt peach flamestitch fabric, ex cond, \$200 OBO. Melody, x32067 or 326-5689.

Bassett wooden baby crib w/mattress, \$95; Graco batt pwr baby swing, \$40. Scott, x34614 or 334-2278.

## Wanted

Want good used pet carrier med to lg sz. Dorothy, 482-1505.

Want Nordic Gold or equivalent work out station; wooden chest of drwr to use for shop. Jones, x38278 or 334-7258.

Want 16" childs bicycle. 280-8608.

Want toddler bicycle trailer (holds 2 child) to attach to adult bike, canvas or plastic mold models. Siders, x38033.

Want donated furn, mattress, household items, cookware, toys, etc, for vietnamese refugees, pickup, receipts given. Mai Pham, x31786 or 484-5414.

Want homeowner, pref. female, to rent a room to non-smoking, female student, approx \$200/mo. Need for 2 yrs. starting 3/1/94. 486-9467.

Want M/F non-smoker room mate(s) to share spacious LC 4-2.5-2, neg. x31456 or 538-1596.

Want childcare for two children in my home, 5 yrs & newborn, LC area, must have own transport, perfer CPR training. Julie, x36528 or 338-2047.

Want riders for Van Pool, West Loop park and ride to NASA/contractors. Richard, x37557.

Want 1847 Rogers Bros silverware in vintage pattern. Joan, x36516 or 941-5908.

Want person to rent downstairs area of lg 2 story, 2 BR, garage, 1 person, \$400 + 1/3 util; 2 persons \$450 + 1/2 Util. Steve, x45658 or x47624 or 333-4222.

Want sm tractor & mower; antique bathtub. Tim, x38843 or 409-925-5011.

## Miscellaneous

Kenmore sewing machine used 2 hrs, OBO. 482-3428.

Golf clubs, Tour Model III 1-SW, \$15.95/club and metal woods, 1, 3, or 5 wood, \$35/club. David, 554-5514.

Raichle 860 men's ski boots, sz 9 1/2, \$60; ski jacket, sz XL, \$30; Hotfingers gloves sz M, \$10. 333-7552 or 286-6620.

Craftsman riding lawnmower, 1HP, 30" deck, 8 spd, good cond, \$575; 17" Starcraft Pop-up camper, ex cond, sleeps 6, \$1.8k. Mark, x38013 or 992-4132.

Trio wedding band and engag w/diamonds, sz 7 1/2, male wedding band, sz 10 1/2, \$200. Ignacia, 471-5251.

Black full sz pick-up truck tool box, \$20. 488-4069.

White eyelet bumper pad, boys winter

coat, 2T, Even Flo breast pump, batt oper, all ex cond, \$10 ea; baby bath towels, \$5 all; four ladies dress suits, sz 11 - 13 avg, ex cond, \$25 ea OBO. Denise, 554-6583.

One ton elect hoist, military surplus, \$40. Lowe, 471-4183.

Blue couch & loveseat, \$250; Whistler Radar detector, \$50; brown leather planner, \$25. 244-5035.

Pres & First Lady Gold charter membership, \$500, \$81.08/yrly fee. x47313 or 480-6983.

Pres & First Lady Gold membership, \$900; ladies ski boots sz 8, Salomon SX-81, \$100. x35753 or 337-2002.

Elect victorian dollhouse, 3 story, \$600; doll

# Carolyn Huntoon

## New JSC director shares thoughts on challenges facing JSC, space agency



[Editor's note: Dr. Carolyn L. Huntoon was appointed JSC director on Jan. 6. The following is the text of an interview conducted Jan. 10.]

By Kelly Humphries

**Roundup:** Can you talk about the principles that will guide you as director of Johnson Space Center?

**Huntoon:** There are a number of important principles that have guided me throughout my career, and these closely reflect the principles that have made the Johnson Space Center such an excellent institution. First and foremost is the pursuit of excellence. Every one of us has to commit to doing our very best in every assignment. Second, those of us in leadership positions must continue to step up to the responsibilities inherent in being a leader. This means setting clear goals and objectives for our people, providing the environment and resources that allow our people to reach business and personal objectives, and holding everyone accountable for doing quality work. Third, we have to be flexible and adaptable to change. This country, the government, and NASA are all feeling the effects of change on a daily basis. We need to create a climate here that is conducive to and supportive of change—otherwise the world is going to pass us by. Fourth, we have to maintain an environment that provides opportunities to all our employees to share in the rewards and opportunities we have to offer—I am firmly committed to this. Finally, I'm committed to ensuring the highest degree of safety in fulfilling our mission responsibilities. We can't ever forget that we're in the business of *human* space flight—above all else, we will ensure mission safety.

**Roundup:** You spoke last week of a period of intensive change. How do you see this playing out for JSC in the near future?

**Huntoon:** The world around us is changing at an amazing pace. In my role as director, I have to ensure that we are positioned to deal with and keep pace with that change. But I also realize that I can't do this by myself—everyone on the JSC team is going to have to join with me, or we won't reach our full potential. I'm going to spend a lot of time talking to people, considering their views and their ideas about change, and use that information, along with my own ideas, as the basis for our next steps. We will have to do something to gain some efficiencies. We just aren't going to see the growth in budget, numbers of people, that we've seen in the past. On the other hand the center has a primary role to play in the human space flight program. The space shuttle will play a key role in the upcoming missions with Russia and the Mir space station. These missions will lead us into an international space station not only with Russia, but with Canada, Europe, and Japan, a new and exciting program that could not have been visualized when the

center was established. The center is the host and operations center for the space station. We also have a major role to play in life sciences and technology. These are exciting and also challenging times. The work we have to do is work of great value, work that is important to the nation and the future. We are fortunate to be not only a part of it, but leading it. It will not be easy, but something of value never comes easily. The reassuring thing is that we have excellent people here at JSC who will join with me in meeting those challenges.

**Roundup:** Do you have plans to make significant changes to the JSC organization?

**Huntoon:** I just don't know yet, at least not specifically. I have some general ideas about what we need to do, but I intend to take the counsel of a number of people before I decide. Because of the need to economize and be more efficient, we have to make sure that we are all pointed in the right direction, that we have eliminated unnecessary functions, and that we have no duplication or overlap of responsibilities. The one thing I'm sure of is that we have plenty of good work for our people—the challenges are there, and I know we're ready to meet them.

**Roundup:** Do you envision any changes in the way you and your immediate staff divide responsibilities?

**Huntoon:** I believe that we all bring certain attributes that shape the jobs we hold. The key is for me to bring each person's strengths to bear on the many issues and challenges that face us. As you know, I've asked Mr. Abbey to be my deputy, and he will bring some real strengths to that role. P.J. Weitz will fill the associate director's role until he retires, and depending on who follows him, we will have to re-balance responsibilities when that change occurs. In general, though, I don't envision sweeping changes in any of those roles. The director will still be responsible and accountable for the performance of this organization.

**Roundup:** What's the funding outlook—are we resigned to tough fights on the Hill each year?

**Huntoon:** I believe we will continue to be challenged to justify our budget requests at all levels—within the agency, by OMB (the Office of Management and Budget) and the administration, and by Congress, just as all federal agencies will. As we all know, the country's going through difficult economic times, and the deficit has to be brought under control. NASA will be asked to do its

share. Because of these domestic economic challenges, the pressure to economize and to demonstrate that we are taking advantage of all possible efficiencies will be there at every turn. This is one of the major challenges I face as director, and all our people face in doing their jobs. On a positive note, I believe there's reason for optimism: we've won the recent votes on space station, the administration has come forth with some of the strongest support for the space program since Apollo, and our recent Hubble mission success was a real boost, and we are leading the way in the largest international technological effort ever undertaken outside of wartime. It has been said that success just buys you a ticket to a more difficult position. We're only a few months away from the next round of budget hearings, and I think we have to be ready. We must produce on our commitments.

**Roundup:** JSC and its support contractors have always been a closely knit team, working together to accomplish lofty goals. In recent months, the redirection of the space station program has

resulted in uncertainty for some contractors and their employees. Is this a sign that the long-term NASA-contractor relationship is changing, or is it a short-term adjustment brought on by changing priorities?

**Huntoon:** We will continue to have strong relationships with our contractors, and I intend to work with their senior managers very closely. The partnership that we have forged over the years has contributed significantly to this center's many successes.

**Roundup:** How healthy are our links with the Houston business community in general?

**Huntoon:** Every year we take another big step forward in our work with the business community. In particular, our work with the Greater Houston Partnership, the Clear Lake Economic Development Foundation and the medical community are reaping great benefits for both the space program and the business alliances involved. We need to continue to strengthen these ties, because such linkages become even more critical when we are trying to maximize the return on space program dollars spent and the relevance of the space program to humans on Earth. I want to continue to expand our cooperative efforts with the community, and there are several we're working on right now that have potential. Some of the ones I've worked on that have great promise involve the Texas Medical Center. Some specific projects include telemedicine and biotechnology, as well as

the ventricular assist device being developed in cooperation with Dr. Michael DeBakey.

**Roundup:** NASA is on a tight timetable for construction of the newly designed international space station, with precursor missions to the Russian Mir space station starting just over a year from now and permanent human capability set for the year 2001. What are JSC's most pressing challenges as host center for the station?

**Huntoon:** I look forward to working very closely with the program office in the coming years. The program manager, Randy Brinkley, visited with me this week, and we had a very productive discussion. I committed the center's full support, and I believe he will take full advantage of the capabilities JSC has to offer the program. This program is going to offer some unique challenges, but also some unique opportunities. Our partnership with the Russians, of course, places us in a unique position with respect to the administration's foreign policy. It's been a while since a NASA program occupied such a prominent position in this area, but I know that we are up to it.

**Roundup:** How will the international flavor of the space station affect JSC?

**Huntoon:** This is part of the change that is going on that will affect the way we do our jobs. Increased international participation in our programs—whether it's Japan, Canada, ESA, or the Russians—is a given. I've been working with researchers from other countries for many years. The science community is very much an international one, and I'm comfortable in such an environment. Our international Spacelab missions have provided the experience base we need to move on to even greater levels of international involvement. I think I can bring my experience to bear very effectively in this area. This is another area in which I am confident our people will come through for us. I know a few of our people are not totally comfortable working in a partnership arrangement with the Russians right now. But we all signed up to do a job, and I call upon everyone to support efforts in this area.

**Roundup:** How do you feel about being named director of the Johnson Space Center?

**Huntoon:** I want everyone to know how proud I am to be director of the Johnson Space Center. I've told others how overwhelmed I am to have been handed this challenge, and it's true. I think the people of the Johnson Space Center are some of the very best in the world, and we have some of the greatest work and challenges in the world. I look forward to working with everyone—our civil service and contractor work force, the community, our partners—in achieving the next generation of achievements in human space flight. □

*'These are exciting and also challenging times. The work we have to do is work of great value, work that is important to the nation and the future.'*

—JSC Director Dr. Carolyn

# JSC workers receive Silver Snoopy awards

The Silver Snoopy award, recognizing outstanding contributions to flight safety and mission success, was presented to 39 civil service and 111 contractor employees in 1993.

Members of the astronaut office made the presentations. Civil service employees receiving the award were: James Jackson, Shari Miller and Charles Riley, Administration; Merri Sanchez and Stephanie Wells, Flight Crew Operations; Karen Armstrong, Edward Burns, Edward Gonzales, Jeffrey Hanley, Dallas Ives, Isaac Moore, Terri Stowe and Michelle Truly, Mission Operations; Francisco Alanis, Liz Duffy, Anh Huynh, Duane Johnson, Michael Montz, Brett Parrish, Charles Salkowski, Bruce Sauser, Joyce Seriale-Grush and Troy Stewart, Engineering; Gary Gutschewski, New Initiatives Office; Graciela Ferris, Donna McAllister and Randy Redford, Center Operations; Gladys Henderson, Scott Johnson and Gerald Shows, Safety Reliability and

Quality Assurance; Lee Snapp, Information Systems; Michael Brzezinski, Eric Christiansen and Don Harris, Space and Life Sciences; David Adlis and Lillian Hudson, Space Shuttle Integration and Operations; Clay McCullough, Scott Murray and James Ratliff, Orbiter and GFE Projects Office.

Contractor personnel recognized with the award were: Randall Briggs, Sheri Gray, Edwin Grimes, Phillip Heady, Tom Pletcher, Robert Reynolds, John Snyder and Jay Weber, AlliedSignal; Don Hopman, Lawrence Kasallis, Patrick Moore and Karen Ross, Boeing; Richard Bach, Miguel Hughes and Mark Thiessen, Calspan; Joseph Halupnik, Ebasco; Brenda Breed, Ronald Cast and James Hite, Ebasco; Julia Morgan and Deborah Prange, Hernandez; George Durney and Melvin Case;

ILC Dover; Sharon Adams, Daniel Brubaker, Pat McLellan, Monty Queener, Donald Reeves and Tony Talbert, IBM; Neil Christie and Janet Cook, Johnson Engineering; Ramona White, Kelsey-Seybold; Linda Barrows, Kristen Maidlow, Janie Scarlett, and Scott Wood, Krug; Kenneth Bollweg, Courtney Clements, Charles Coe, Robert Coleman, Teyo de la Garza, Mario Delgado, Daryl Ethington, James Hampton, Robert Hill, Phillip Kisamore, Jordan Metcalf, Andy Milliken, David Moore, Wally Neuman, Luon Nguyen, Robert Reitz, Michael Robel, Attibele Shamala, Michael Trznadel and Mark Welch, Lockheed; Greg Hall, Dan Hayes and Sam Motto, Lockheed/WSTF; John Arnsperger, Marion Bell, Winfried Graeber, Edward mathiasen, Henry Valdez and Robert Voytilla, Loral; Paul Miller, Martin Marietta;

Janice Everett, Pete Fardelos, Ernest Lucero, McDonnell Douglas; Mike Curie, Media Services; Dan Bellue, National Weather Service; Frank Driskill, Jackie Lankford and Willis Peacock, Northrop; Mae Johnson, Pioneer; Clement Ivan, Deborah Jackson, Henry Lampazzi, Lai-iun Lo, Robert Mahoney, Enrique Median, Kevin Repa, Rhonda Robbins, Lonnie Schmitt, Carolyn Sower, Chris Tancredi, Susan Andrews, Darryl Archer, Danielle Carelock, John Coggeshall, Don Corcoran, Fred Davis, Wilson Dinsdale, William Hollister and John Houlihan, Rockwell; Hubert Price, Rothe Development; John Wilcox, William Little; Emmitt Durham, Taft Broadcasting; Bryan Batson, Brian Breen, Jim Brown, Catherine Bupane, Chris Gillotti, Cynthia Griffin, Joanna Keitt and Dennis Roach, UNISYS; Richard Kaufman, Michael Mickiewicz and Dorsey Schaper, United Technologies; and Greer McClain, U.S. Air Force.



## Course promotes effective parenting

While children do not come with "how-to manuals," a special course offered by the JSC Employee Assistance Program and Family Outreach of Clear Lake/Bay Area can help parents better handle the challenges of bringing up junior.

The Systematic Training for Effective Parenting program teaches parents practical and enjoyable ways to relate to their children, ages 6 to 12 years. STEP promotes a mutual respect between parent and child that cultivates cooperation, responsibility and self-reliance.

Classes for the eight-week program will be Tuesdays from 7-9 p.m. beginning Feb. 1 at the Gilruth Center. Cost is \$20 and includes text and teaching materials. Registration is limited to 20 participants.

Kay Nute, a Family Outreach volunteer, will teach the course. Nute holds a master's degree in behavioral science and psychology. She also works for the Universities Space Research Institute. Family Outreach is a non-profit agency supporting the Texas Department of Human Services.

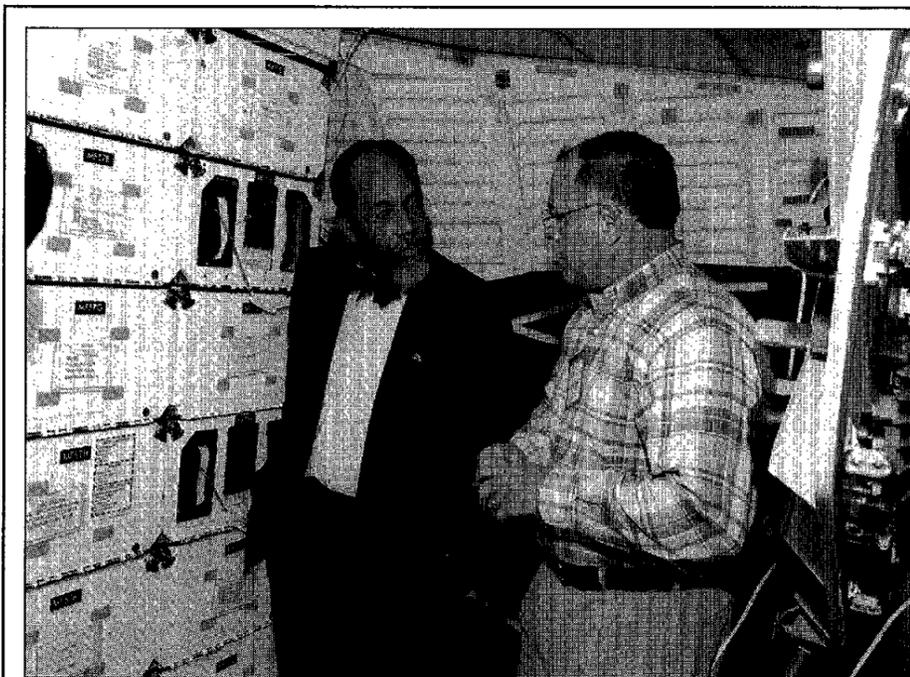
To register, contact Kathy Parker in the JSC Employee Assistance Program Office at x36130.

## Apollo 8 posters on hand

Posters commemorating the 25th anniversary of the Apollo 8 moon landing will be available to JSC employees and contractors beginning Monday.

There is a limit of one poster per badge employee or contractor.

Posters may be picked up between 8 a.m.-5 p.m. at the half-door entrance to the library, Rm. 173, Bldg. 2.



**MIDDECK MEETING—U.S. Rep. Craig Washington talks with NASA Associate Administrator for Safety and Mission Assurance Fred Gregory on the middeck of the Full Fuselage Trainer in Bldg. 9. Washington visited JSC last week as keynote speaker for the JSC Black Cultural Association's observance of the Rev. Martin Luther King's birthday.**

JSC Photo by Jack Jacob

## Legendary flight director Kranz to retire this March

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of America's greatest accomplishments in space, including the recent mission to repair the Hubble Space Telescope.

"His talents will be sorely missed, but he has given his country a tradition of excellence that is carried on with the operation and control of each new space flight," she added.

Among his many honors, Kranz received the nation's highest civilian award, the Presidential Medal of

Freedom, and has received four Presidential Rank awards, the highest honor accorded civil servants.

Kranz, 60, received a bachelor of science degree in aeronautical engineering from Parks College of St. Louis University in 1954. He began his aerospace career as a flight test loads engineer with McDonnell Aircraft. In 1955, he joined the U.S. Air Force as a single engine jet pilot. In 1958, he became an Air Force flight test engineer and supervisor at

Holliman Air Force Base, N.M.

In 1960, he joined NASA and the Space Task Group, which became JSC, as chief of the Flight Control Operations Branch. He was an assistant flight director for Project Mercury and flight director for the Gemini Program. In 1969, he became chief of the Flight Control Division, serving as a flight director for the Apollo and Skylab programs.

In 1974, Kranz became deputy director of flight operations, develop-

ing and then directing the flight control operations of the shuttle.

In 1983, Kranz was appointed director of mission operations, responsible for planning and developing shuttle missions, training astronauts and flight controllers for each mission, and the real-time control and operation of shuttle missions. He also has played an important role in space station flight control, operations and training development.

## Servicing team members find satisfaction in telescope's first images

(Continued from Page 1)

that the 15-20 year life of the telescope required a servicing mission every few years. We proved that concept is workable.

"Three things made this mission work successfully: HST was designed for on-orbit maintenance and repair; the ground team and training team were attentive to detail; and the importance of robotics, for instance the shuttle arm, made the task a lot easier. All of these are equally important for space station operations. If we have something designed to be worked

on in space, and do it properly, it will make the task a lot easier when it comes time to do it."

Training team members were among those who had to be attentive to detail as they prepared the STS-61 crew for on-orbit operations. Dawn Thomas, training manager for STS-61, worked on requirements for two years. "It was satisfaction with a job well done," Thomas said after seeing the photographs. "We can look at the results of the mission and see the time and effort put into training was worth it."

That sentiment of accomplish-

ment was echoed by STS-61 Lead Flight Director, Milt Heflin. "I wasn't surprised" with the mission success, said Heflin. "The list of people I'm happy for grew immensely."

Among those people happy with results was Mission Director Randy Brinkley. Brinkley led the efforts to repair the telescope.

"When the shuttle landed, we knew we had been completely successful in achieving two of our three mission objectives," said Brinkley. "For those of us in the manned space flight business, we clearly demonstrated the concept of on-

orbit servicing, which has implications for future HST missions, and for our ability to build a space station on orbit.

"Second, we knew all of HST's systems were working when we left. What we still did not know was, had we fixed the aberration? It wasn't until those pictures came out that we could claim total success for the mission and the agency. Finally, to see the positive response to the images and have Sen. Mikulski recognize the mission as a complete success makes every member of the '61 team very proud.

"If I were to attribute success to any one thing - it's the people," Brinkley added. "NASA isn't broken. The agency has good people capable of success. We face a lot of challenges in the future and I think this mission indicates that we're up to those challenges."

On a personal level, Brinkley said "for me, completing two of three objectives was a good Christmas present, a good way to end 1993. Completing the third, and perhaps most important objective for the scientific community, was a great way to start 1994."

## Hubble bandages come off early

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had been received "From our perspective, the Hubble is fixed. It's fixed beyond our wildest expectations. And it was done on cost and schedule," Weiler said.

Astronomers will now begin work on several key projects, Weiler said, including efforts to prove the existence of black holes, measure the age of the universe through distance scale tests using Cepheid variable stars and find galaxies in the earliest stages of their formation.

Additional targets of study include the search for planets around other

stars, and close-up looks at high-red-shift galaxies, globular clusters and blue stragglers, said Dr. David Leckrone, senior HST scientist at Goddard Space Flight Center.

The servicing process was so gentle that it left all of HST's new optical components in their pre-launch alignment, he added, which means scientists will be able to begin using the cameras immediately, even as checkout work continues.

"The bandages did come off ahead of schedule and our patient has new vision of incredible clarity," Leckrone said, because the checkout team has not had to devote any

time to trouble-shooting. The prescriptions for the corrective optics appear to have been perfect and the telescope's systems have been operating "like a dream," he added.

WFPC-II Principal Investigator Dr. John Trauger of NASA's Jet Propulsion Laboratory said 150 vigorous science programs, ranging from investigations involving nearby planets and comets to quasars and galaxy clusters, some of the universe's most distant objects, in the coming year.

"We have enabled a kind of science that Hubble always wanted to do," Trauger said.

## Space News Roundup

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

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## STS-60 launch team, crew finish rehearsal

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to fly on a U.S. spacecraft—completed the terminal countdown demonstration test launch rehearsal at KSC and standard pad escape training.

Other work on *Discovery* this week includes the loading of fuel for the orbital propulsion systems.

Elsewhere, the solid rocket boosters and external tank for STS-62 are scheduled to be mated in the Vehicle Assembly Bldg. In KSC's Bay 2 hangar, *Columbia's* payload bay doors are to be closed next week. STS-62 is aiming toward a move to the VAB in early February, leading to a March launch.