

National Aeronautics and Space Administration

> Lyndon B. Johnson Space Center Houston, Texas



Special honors

The JSC Child Care Center earns special honors for its efforts on behalf of a special child. Story on Page 4.



White anniversary

NASA astronauts and former astronauts help Ed White Elementary School celebrate. Photos on Page 4.

Space News Roundup

JSC gains training site

Signs lease for Neutral Buoyancy Lab

\$34 million lease/purchase agreement last week with the McDonnell Douglas Corp. to acquire real estate and facilities at the Clear Lake Development Facility for the Neutral Buoyancy Laboratory.

Under terms of the contract, McDonnell Douglas will turn over to NASA a group of three large, modern industrial buildings and surrounding property and will build the NBL in one of the buildings. These facilities will be leased by NASA until authority to complete actual acquisition is secured from Congress.

In addition to providing shuttle

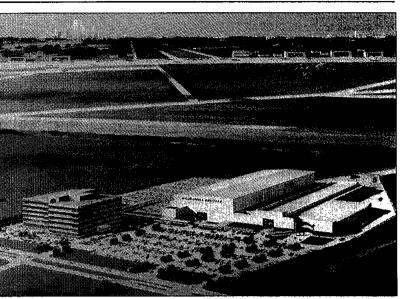
NASA signed a firm, fixed-price operations training, JSC needs the NBL to train astronauts for space station assembly, which will involve the most extensive and complex EVAs ever attempted. Since existing weightless environment training facilities are inadequate to meet future extravehicular activities training requirements, NASA developed plans to build the NBL.

"This new laboratory will give our astronauts and flight planners the training advantage they need to accomplish an extremely challenging task," said JSC Director Dr. Carolyn L. Huntoon. "This agreement will yield a world-class facility

that will serve our nation for many years."

The existing 101,000 square foot Assembly and Test Building will house a 101-foot wide by 202-foot long water tank, 40 feet deep, where astronauts will simulate space walks such as those required to service the Hubble Space Telescope or assemble the 831,000 pound space station. Segments of the space station will be delivered to orbit beginning in November 1997 on U.S. space shuttles, Russian and European launch vehicles and assembled in space by astronauts.

Please see NBL, Page 4



The new Netural Buoyancy Lab will be built in the existing structure in the center of this artist's conception of the Clear Lake Development Facitity adjacent to Ellington Field.

No parking signs go up on Fifth St.

Concern for pedestrian safety prompts change

Curb-side parking became illegal this week along some areas of Fifth Street because of increasing concern about the safety of pedestrians.

The move came after JSC's Center Operations Directorate re-

NO **PARKING** ON PAVEMENT

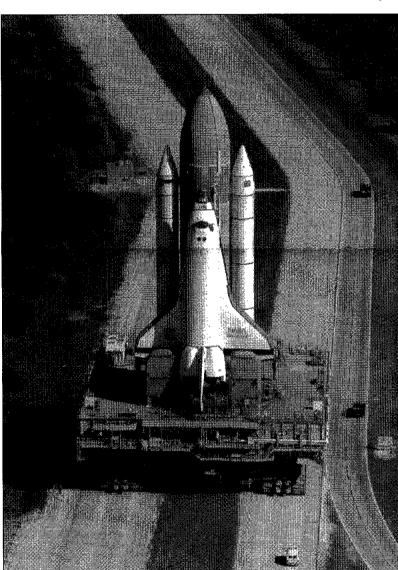
ceived several inquiries about the safety of employees crossing Fifth Street between cars parallel parked along the street.

Safety and security sonnel evaluated the area and concluded that a safety hazard did exist, and that adequate parking is available in the surrounding parking lots.

The change affects curb-side parking on Fifth Street south of Bldg. 35. The curbs are in the process of being remarked with yellow paint and "no parking" stencils to clearly indicate the area concerned. This change will take effect as the curbs are repainted.

Employees using these outlying parking lots should still take care not to cross in other than marked pedestrian crosswalks.

Drivers are cautioned that citations will be issued to automobiles that park in the new no-parking



The Space Shuttle Discovery completes the final leg of its Earth-bound journey to Kennedy Space Center's Launch Pad 39-B. Launch is set for about 11:48 p.m. CST Wednesday. The launch window is a scant five minutes long and may change slightly based on last-minute information about the location of Russia's Mir space station.

Discovery crew travels to KSC en route to Mir

Preparations are continuing on schedule for the launch of Discovery in the wee hours Thursday on the first shuttle mission of the year in which the spaceship will conduct the first rendezvous with the Russian space station Mir.

Discovery's six astronauts-Commander Jim Wetherbee, Pilot Eileen Collins and crewmates

Bernard Harris, Mike Foale, Janice Voss and Vladimir Titov-flew to the Kennedy Space Center late last night from JSC just hours after the countdown began Discovery's planned liftoff at about 12:48 a.m. EST on Thursday.

The astronauts will wrap up final prelaunch preparations by reviewing their

flight plan and checking their equipment before awakening Wednesday evening to suit up for their ride to Launch Pad 39-B. The fueling of Discovery with a half million gallons of liquid oxygen and liquid hydrogen scheduled to begin late Wednesday afternoon.

If Discovery begins its journey within its five-minute launch window Thursday, Wetherbee and Collins are expected to park the shuttle within 33 feet of the Russian space station early Sunday afternoon, Feb. 5, following three days of intricate maneuvers in a carefully choreographed scenario developed by flight controllers.

Discovery will spend about 10 minutes station-keeping at its closest distance to Mir as the six astronauts and three cosmonauts aboard Mir

converse with one another through a VHF radio hookup. Then, Discovery will back away to about 400 feet from Mir as Wetherbee initiates an hour-long fly-around inspection of the 9-yearold outpost.

The STS-63 mission is also highlighted by a variety of experiments in the commercial Spacehab

science module in the cargo bay, the deployment and retrieval of the SPARTAN astronomy satellite and a five-hour space walk by Harris and Foale on Feb. 8. Landing would occur at the Kennedy Space Center just before dawn on Feb. 10.

Meanwhile, engineers continue to prepare Endeavour for its trip to the Vehicle Assembly Bldg. to be mated to its fuel tank and solid rocket

Please see ATLANTIS, Page 4

Satellite shows El Niño back

Biggest effect in JSC area is warmer, moister winter weather

The El Niño phenomenon is back and is getting stronger, according to scientists studying data from the ocean-observing TOPEX/POSEIDON satellite.

El Niño is a climatic event that can bring devastating weather to several parts of the world, including the recent heavy rains and flooding in California, and the warmer than normal winter in the eastern United States.

Mark Keehn, a meteorologist in the National Weather Service's Spaceflight Meteorology Group at JSC said the strongest effects of El Niño in this area are felt in the winter. The presence of El Niño also could mean good news for the Houston area this summer and fall.

"The big effect in this area is that during El Niño years we tend to stay a little warmer in the winter time and we tend to have a little

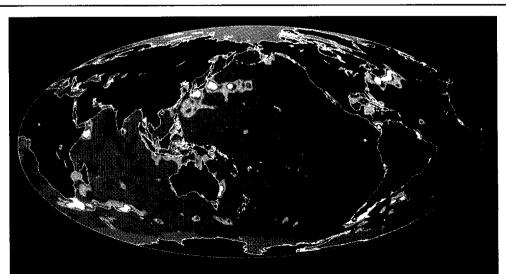
more rain," Keehn said. "In the fall, generally in El Niño years you have fewer tropical storms and hurricanes.'

Dr. Lee-Lveng Fu, JPL TOPEX/ Poseidon project scientist at NASA's Jet Propulsion Laboratory, said the satellite has observed high sea-surface elevation, which reflects an excessive amount of unusually warm water in the upper ocean.

"The associated excess of heat creates high sea-surface temperatures, which affect the weather worldwide by heating the atmosphere and altering the atmospheric jet streams," he explained.

Jet streams are high-level winds, five to 10 miles above the Earth's surface, created when warm and cold air masses meet. Shifts in the location of jet streams change temper-

Please see EL NINO, Page 4



This October 1992 image of ocean eddies is an example of the kind TOPEX/ Poseidon radar altimeter data being analyzed by scientists. The intensity of the sea surface height is stronger in the white areas, weakest in the darkest areas. Higher surface elevation indicates warmer water in the upper ocean.

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.

Musical concert: Les Miserables at 2 p.m. Mar. 26 at the Wortham Center. Tickets cost \$42. Tickets on sale through Feb. 10.

Rodeo tickets: Several performances to choose from. Tickets cost \$9. 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. 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, \$6.43.

JSC history: Suddenly, Tomorrow Came: A History of the Johnson Space Center. Cost is \$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. Feb. 7 and Feb. 23. Pre-registration is required. Cost

Defensive driving: Course is offered from 8:15 a.m.-3 p.m. Saturday. Next class is Feb. 11, 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

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

Tennis league: Registration for the spring tennis league will be held Feb. 6. Cost is \$25. 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.

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

Golf Association: Sign up for the 1995 league will begin in Feb. To join call Harry Kolkhorst at x33312.

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.

Dates & Data

Today

Alaá meeting: The American Institute of Aeronautics and Astronautics will host a dinner at 6 p.m. Jan. 27 at the Lone Star Flight Museum. For additional information call Tanya Bryant at x31175 or Fran Jamison at 333-6277.

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

Monday

Cafeteria menu: Special: Italian cutlet. Total Health: roast beef au jus. Entrees: chicken a la king, enchiladas with chili, vegetable lasagna, steamed pollock, French dip sandwich. Soup: split pea and ham. Vegetables: Brussels sprouts, oriental vegetables, buttered carrots, lima beans.

Tuesday

Cafeteria menu: Special: stuffed cabbage rolls. Total Health: roasted turkey. Entrees: turkey and dressing. country style steak and hash browns, beef ravioli, baked chicken, fried cod fish. Soup: tomato Florentine. Vegetables: Italian blend, okra and tomatoes, corn cobbette, navy beans.

Wednesday

Astronomy seminar: The JSC Astronomy Seminar will meet at noon Feb. 1 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. Feb. 1 at House of Prayer Lutheran

Church on Bay Area Blvd. For additional information, contact Darrell Boyd, x36803.

Bike ride: The JSC Bicycle Club will meet for a 1.1- and a 1.6-mile loop at 5:30 p.m. Feb. 1 behind the Grumman bldg. at Ellington Field. For additional information call Bike Barn at 480-9100.

AIAA Luncheon: The American Institute of Aeronautics and Astronautics will host a luncheon at 11:45 a.m. Feb. 1 in Rm. 206 at the Gilruth Center. For additional information call Naz Bedrossian at 333-2127.

Cafeteria menu: Special: pepper steak. Total Health: stir fry pork with rice. Entrees: liver and onions, stirfry pork with rice, steamed fish, western special, Reuben sandwich. Vegetables: steamed broccoli, yellow squash, macaroni and cheese, vegetable sticks.

Thursday

Cafeteria menu: Special: chicken fried steak. Total Health: baked potato. Entrees: beef tacos, steamed pollock, baked chicken, catfish special. Soup: navy bean. Vegetables: spinach, cut corn, breaded okra, pinto beans.

Friday

Cafeteria menu: Special: tuna noodle casserole. Total Health: baked potato. Entrees: steamed salmon steak, baked chicken, fried cod fish, ham steak. Soup: seafood gumbo. Vegetables: French cut green beans, cauliflower with cheese, green peas, black-eyed peas.

Feb. 8

Astronomy seminar: The JSC Astronomy Seminar will meet at noon Feb. 8 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. Feb. 8 at House of Prayer Lutheran Church on Bay Area Blvd. For additional information, contact Darrell Boyd, x36803.

Bike ride: The JSC Bicycle Club will meet for a 1.1- and a 1.6-mile loop at 5:30 p.m. Feb. 8 behind the Grumman bldg. at Ellington Field. For additional information call Bike Barn at 480-9100.

Feb. 14

NMA class: The Texas Gulf Coast Council of the National Management Association is hosting a 10-hour money management seminar from 6-9 p.m. Feb. 14, 21, and 28. Cost is \$50 per couple for NMA members and \$75 for non-members. For additional information call Richard Hergert 280-0444.

Feb. 15

AIAA seminar: The American Institute of Aeronautics and Astronautics will host a two part seminar on the Internet at 6:45 p.m. Feb. 15 at the LPI Lecture hall. For additional information call Naz Bedrossian at 333-2127.

Feb. 27

Quality Conference: The Third Annual Conference on Quality in the Space Industry will be held from 8a.m. - 6 p.m. Feb. 27 at South Shore Harbour Resort. For registration and information call Glen VanZandt at x33069.

Mar. 30

AIAA workshop: The American Institute of Aeronautics and Astronautics will host a real time workshop on MATLAB from 9 a.m. - 4 p.m. Mar. 30 at the LPI Lecture hall. For information call Naz Bedrossian at 333-2127.

Sale/Rent: Egret Bay waterfront condo, 1-1, FPL, fans. W/D, dishwasher, microwave, cov parking, \$530 + deposit. Karl, x33031 or 334-1164.

Rent: Tranquility Lake, 1-1-1CP, W/D, micro, c'fans, FPL, \$450/mo. Vic, x30189 or 333-2482. Sale: LC, 3-2-2, Bayridge subdiv, CA/C, c'fans, Ig yard, possible owner finance, \$556/obo. 286-1934.

Rent: Taos, NM, house, close to town, ski valley, 486-Sale: Friendswood, 2.69 acres, utilities avail, ready build, \$49.5k. x37346.

Rent: 2 8R condo, SilverCreek, CO for week, 12/9-16/95, full kit, TV, micro, sleeps 7. x37990 or x33185 Rent: Winter Park, Co, condo, 2-2, furn, sleeps 6, spring break still available. 488-4453.

Rent: San Leon, 3 BR mobile home, \$700/mo + dep. 554-

Lease: Nassau Bay condo, 2-2.5-2CP, refrig, W/D hookups, avail 2/1/95, \$700/mo + dep. 480-5090.
Sale/Lease: Country Side South, 3-2-2, CCISD, corner lot,

FPL, c'fans, Lester, 332-6194. Lease: El Dorado Trace, 2-2.5 condo, W/D, FPL, cov parking, \$675/mo. x34696 or 486-3980.

Sale: Baywind II condo, 1-1, new carpet/paint, W/D, appli, FPL, near pool, #23k. 486-8047. Sale: Santa Fe/Alta Loma, Ave E. 2.5 acres, mineral rights,

front 220' x 495' deep. 337-1311.

Rent: Waterfront efficiency apt, furn or unfurn, pool, utili pd except phone, non-smoking, no pets, \$395/mo. x48882

Rent: Beaver Creek condo, sleeps 8, week of 2/25, x39528. Lease: Hobby/Monroe area, 3-2-2, fenced, avail 2/1,

\$600/mo + dep. x33765 or 326-1390. Lease: Dickinson townhouse, 2-1.5-2CP, FPL, 1200 sq ft, \$500/mo. x33005 or 334-7531.

Rent: Arkansas cottage, Blue Mt Lake, furn, 4 ac, \$250/wk, \$50/dly. x33005 or 334-7531

Cars & Trucks

'90 Pontiac Firebird, black, ex cond, runs great, \$6,250/ obo. Patrick, 488-3198

'82 Mercedes 300 Turbo diesel, loaded, auto, ex cond. \$5.5, x33731 or 363-3901. '86 dodge Caravan, PW/PL, cruise, new tires, brake/trans, \$2.6k firm. Rob. 409-948-4206.

'81 Rabbit diesel, wrecked, parts avail. Dennis, x39012 or '91 Peugeot 405S, ex cond. 72k mi, \$5.5/obo, 554-4799

'91 Isuzu Trooper, 30k mi, 4 WD, 5 spd, tactory A/C, full warr, \$15/obo. Dan, x47669 or 332-7695. '92 Mazda Miata MX-5, red/bl1k, 24k mi, 6 vr/100k warr.

'91 Ford Explorer, Eddie Bauer, alarm, CD, leather, 58k mi. \$4.3k. Gene Cernan, 827-9922 or 789-8941

'89 Acura Integra, loaded, \$3.5/obo. 777-9469.
'88 Mazda RX7 GXL, silver, leather, loaded, sunroof, 5 spd. \$6.5k, 561-7677. 78 CJS Jeep, 304ci eng, ex cond, 31" wheels, fiberglass

72 Toyota Corona Mark II, 4 dr, auto, runs good, eng overhauled 7/93, \$900 firm, 471-4843 '89 Pontiac Sunbird, A/C, auto, cruise, tilt, PS/PB, AM/FM/

cass, ex cond, \$4.4k/obo. 332-6340. '74 Dodge Merry Miler, stove, retridge, 40k mi on rebuilt eng, new tires, \$2.2k. Mark, x32125 or 334-5113. '91 Isuzu Trooper LS, dk blue w/gray int, V-6, roof racks

ex cond, \$12.5k. Robert, 488-7728. '80 Honda Civic, 2 dr, 150k mi, hatchback, white, new tires/brake/exhaust sys, \$1k/obo. x39011 or 474-2857.

'85 Subaru GL sedan, 4-dr, 5 spd, A/C, all pwr, AM/FM,

new tires/radiator, red, ex cond, 130k mi, \$975/obo. Tony x38839 or 992-8669

'87 Honda Prelude 2.0 SI, red, auto, sunroof, good cond, 110k mi, \$5.5/obo. x31188 or 334-6393.

'91 Toyota MR2, white, auto, sunroof, 50k mi, \$12k/obo

'85 Suburu GL, 4 dr, auto, pwr, AM/FM/cass, A/C, 1 owner, 48k mi, 337-7573.

'91 Ford Escort, 55k mi, auto, A/C, 5 dr, blue/gray, excond, \$4.5k. Sherry, x32064 or 474-5636. '86 Nissan Sentra, blue, 5 spd, A/C, AM/FM, 77k mi \$1,750/obo. 286-1863.

'91 Accord LX, 5 spd, all pwr, 41k mi, ex cond, \$9.8k Toni, x41076 or 326-3248. '85 Cutlass Supreme Brougham, V-6, loaded, \$2.5k/obo x39026 or 326-2895.

'92 Chevy K5-Blazer, 350 V-8, 4x4, Z-71 pkg, ex cond, 65k mi, \$20,980. x47660 or 526-6880. '86 Chevette, auto, A/C, clean, 78k mi, 1 owner, \$1.3k

Juan, x38833 or 333-0406. '94 Eclipse, 5 spd, pay off Ioan under \$12k, 534-2551.
'83 Toyota Cressida, brown, leather, sunroof, A/C, runs

great, \$1.5k. Steve, x49625 or 486-8047.
Mazda MX-6, hunter green w/beige int, V-6, 5 spd, loaded, fold down rear seats, 26k mi. 484-2414.

'87 Ford Escort wagon, A/C, 4 spd, 108k mi, reliable trans.

'82 Class 'C' 24' motorhome, Ford chassis, 57k mi, 460 engine, sleeps 6, 4kV gen, new tires, A/C, \$9.8k, 488-4415.
'93 Model 27' Aljo deluxe fifth wheel camp trailer w/hitch, ex cond. \$13.k. x33437 or 332-2705.

Cycles

'83 Harley FLT Tour Glide, \$8k/obo. x38784 or 482-0139, '85 Honda Interceptor 500, VF500F, ex cond, 7.5k mi, helmet and cover \$1 9k Keith 484-4349

Suzuki TM 250, clean, \$450. 337-7373. Raleigh, "Superbe" 12 spd, professional race bike, ex cond, new access & parts, Ultra Light Reynolds 531 frame,

'78 Kawasaki KZ1000, parts & access, \$1,350, 335-0112

Boats & Planes

'95 Searay BR, 18', 135hp Mercruiser I/O, galv trailer, skis, vests, boat cover, less than 20 hrs, \$12k/obo. x37739. '95 Seadoo XP w/trailer, cover, custom grate, rear step, ex cond, \$3.7/obo. Mark, x38211 or 331-9345

Aluminum V-hull boat, 14', \$135. Tex, x45360 Galaxy boat, 23'.9 w/cabin sleeper, V-6, I/O + Cox galvanized float on traiter, \$6.5k/obo. 474-1455.

Sovereign, 24', ex cond, extra jib, depth sounder, head, stove, sleeps 4, electric Johnson OB, \$7.9/obo. Mike, 282-

'69 Sportcraft 14' boat w/trailer, 55 hp Johnson OB, \$975.

Audiovisual & Computers

Sony car Discman w/car kit & wireless remote, \$200/obo. Thanh, x31464.

Novatel cellular phone, mounted, ex cond, \$65, 554-4799. Apple Macintosh LC II 4/80 w/monitor & keyboard, \$650/ obo, will sell LC II separately, \$425/obo. x38871 or 538-

Motorola cellular phone, flip type, \$35/obo. x30737. Macintosh SE, FDHD, 4MB RAM, 40MB HD, kybd, mouse, pad, Imagewriter II printer & manual, HD controller not working, make offer, Jim. 471-3119. Pair of Infinity spkrs, oak finish, \$75. x49767 or 480-

Realistic auto radio, AM/FM/cass w/digital display, \$60. Bill, x47581 or 481-3358.

IBM compat, 386, 8MB RAM, 2 FD, 3.5 & 5.25, 65MB HD, Windows 3.1, S/W, \$900. Earl Rubenstein, 480-1998. Kenwood TM441A 440MHz xceiver, \$375; Keny

TSQ30SE HF xceiver, \$475. Bill, x36650 or 554-6242.
PC 486 DX 25 MHz w4MB RAM, 120MB HD, IBM Windows accelerator, 14" SVGA NEC monitor, \$650, 482-0909. Flight simulator yoke, Zoomer, throttle, trim, fire buttons,

adj autofire, IBM compat, \$45. Jeff, x31975 or 286-1935. Fax/modem board, 9600 bps fax, 2400 bps data, all S/F & documentation, \$20. Dan x47669 or 332-7695. Sharp portable electronic typewriter, \$45; Hewlett Packard, HP 12C, financial calculator, \$30. Ted, x34166 or

IBM clone 386DX33 tower, 8MB RAM, 5.24 & 3.5 FD, 105MB HD, mouse PC Trackball, 14" View Sonic 4E SVGA color monitor, Multimedia upgrade kit w/Sound Blaster kit; Epson LQ570 24 pin printer & computer hutch, \$800/obo.

Musical Instruments

Rickenbacker electric guitar & practice amp, ex cond, \$200. 280-4564 or 332-1852.

Keyboard, K-1000, 75 keys, 179 programs MIDI w/hard-

Guitar Signal processor, digitech GSP-21 Pro w/foot controller, \$300. Steve, 333-4736 or 480-5767.

Pets & Livestock

Free bunnies, 554-2156. Free male adult Russian Blue cat, 333-3425. Free 1 Golden/Black Lab mix, & 1 blk Lab/Beagle mix.

Household

Zenith 25" color console TV, \$45. Tony, x35966. Antique pie keeper, \$300; secretary, \$350; vanity, \$400; chinese silk rug, \$300; bookcase, \$200. x38784 or 482-

Telephone answering machine, \$25. Eric, x31917. Full sz bed frame, hdbd w/shelf, \$20, Dan x47669 pr 332-

Kg sz waterbed w/access, \$150. 337-7373. Kg sz bed, mattress/frame, \$50; kg sz Henredon storage headboard \$400 474-7432

Love seat, brown velour print, contemporary style. Exercise bike, peddte & row, 337-2333

Bunkbed, bottom full sz. top twin w/full sz mattress, color blue, \$150. Cindy, 482-7603. Antique envelope card table, approx, 90 yrs old, ex cond, photo avail. \$1.4k, x31057.

Four rolling kitchen chairs & bar stools, \$60; baby crib & mattress, \$40; wrought iron kitchen set w/4 chairs, \$120; coffee tbl entertainment center, \$50; oak stereo cabinet, \$50; 2-3 way stereo speakers, \$50; lg sq mirror, \$30. 482-7616. Cargo student desk, hutch & chair, \$375. Bill, x36650 or

On sz mattress/box springs, \$50; 6-light brass sq arm chandelier \$75, 337-5444 On sz waterbed, mirrored, headboard, mattress, liner/

heater, 8 drwr, 4 cabinets, \$150; metal desk, chair, \$75; stomach cruncher w/wts, \$75; dining table, 3 leaves, 5 Panasonic, 25" cable ready remote TV, \$120. x33097 or

Twin mattress set, \$25; qn boxspring, \$12; 6 drawer dresser, \$30; teachers school desk, \$35, 471-4843 G.E. lg capacity W/Dr, ex cond, \$375.both. 286-9727. Bassett sleeper sofa, gn sz mattress, blue, ex cond. \$250 Rattan Pappasan chair w/beige cushion, \$25. Kathy, 337-

5622 or John, x33662. Jenn-Air Dowdraft cooktop designer series, stainless steel, coil elements, grill, 2 element cartridges, rotisserie, griddle, \$225. Jeff, x31975 or 286-1935. Antique dining table 48" x 48" oak & 5 oak chairs,

pressed blk, \$1,050, 488-5564, Twin bed, \$30; stand up bar, \$25; end table \$25; computer credenza, \$30/obo. Brian, 480-5430.

Wanted

mo. x46121 or 331-3963.

Want Beta VCR. Henry, x33188. Want 3 BR home, Bryan/College Station. 332-2229. Want salt water trolling motor, transom mount, 40 lb thrust min. x33187 or 488-5162. Want non-smoking roommate to share 4-2.5, country

home in Alvin, able to tolerate Ig outdoor pets, ref req, \$350/

Want roommate to share 4 BR house in CL, \$300/mo + 1/2 util. 286-8434

Want CD player & amp for NASA pony baseball field. Bob, x35483 or 480-2997. Want non-smoking carpoolers from Sugar Land, 59 & Hwy 6 area to JSC, 7:00 am to 3:30 pm. Norman, x31970. Want occ babysitter for 7 & 2 yr old boys, mostly wknds during shuttle missions, ref req. Laura, x32172 or 286-1133.

Want Precious Moment collectors to swap/buy/sell pieces have retired/suspended pcs for trade. Katie, x33185. Want non-smoking roommate to share house in CL Forest, private bath, garage, \$375/m. 474-1455.

Want non-smoking fem to share 2 BR townhouse, private bath, \$400/mo + utili. x45090 or 480-5132.
Want Northwest airline "Fly-Write" tickets, or other Northwest coupons, Walt, x47392.

Want 35mm slide projector, good working condition, w/ trays. Cliff, x41082 or 480-5026. Want non-smoking roommate share LC house, w/couple, no pets, all bills pd, \$350/mo. 338-2026.

Want Nordic Trac Sport exercise machine. Tony, x38839 or 992-8669. Van pool riders needed from Alief & West Loop Park & Ride, 333-6489.

Want roommate, M/F, Galveston, to share home \$300/mo + 1/2 utili, x42521 or 409-765-9027. Want to rent garage apt or private living quarters in CL area, need ASAP. 990-5543.

Want personnel to join VPSI vanpool, West Loop Park & Ride lot at 6:50 p.m. to NASA/Contractors. Richard Heetderes, x37557 or Ed Rangel, x36124.

Want personnel to join VPSI Vanpool departing Meverland Park & Ride tot at 7:05 a.m. for JSC, vanpool consists of onsite personnel working the 8 a.m.4:30 p.m. shift, currently have 15 good members, looking for 2 or 3 more. Travis Moebes, x45765 or Don Pipkins, x35346.

Want low priced school/work car or truck. 271-7011. Want baby jogger. 332-9105.

Miscellaneous

Wedding ring set, 3/4 carat total weight, 14k gold, \$450.

14kt gold dia-cut rope bracelet, 7", 3mm wide, \$70; Daytimers planners w/zipper notebook, full 8.5 x 11sz, desk paper punch, fillers through Sept '95, \$75. Eric, x31917.

Gerry booster seat, MDL #675, \$25; 2-ship masthead lamps, brass & copper w/curved glass 7 1/4 dia x 12"H, \$40/ea or \$70/pr; rigid foam attic ceiling door insulation kit for R.O. 22" x 54" or 25.5" x 54", \$15; campcook set, 4-per-

son enamel on steel, \$15; stoneware, Otagiri "Horizon' incomplete place set for 6, \$20. Doug, x48851 or 486-7412. Vitamaster Pro 100 exercise stepper, \$40; elect dryer Kenmore, \$30; misc wine stuff, jugs caps, \$25. Tony,

Rollerblade Lightning's, sz 9, w/knee pads & wrist guards. \$125. Phil, 333-6372 or 480-9105 Single motorcycle heavy duty trailer, \$200/obo, x47398.

Moving boxes, all sizes, cheap. Ray, x53954 or 963-0074. Double headboard & footboard, maple, \$35; girls 20" bike, multi-colored, ex cond, \$30, 326-4316. Cream colored wedding dress, sz 6, short puffy sleeves off shoulder, Alencon lace bodice, satin skirt, long train, match-

ing veil & sz 7 shoes, \$500; Gravity Edge wt machine, \$300; Easy Glider cross-country skiing, \$15. x34905 or 922-9721. Wieder wt bench w/stairstepper, \$150/oho; oak veneel entertainment center, \$35/obo; 3 drwr VCR tape cabinet & 3-3 drwr cass tape cabinets, make offer, x46121 or 331-3963. Infant carrier, swing, girls baby clothes, diaper pail, bottles, bedding in primary colors, comforter, bumper pad,

Washer/dryer, \$100/obo; baby items, cradle, infant car seat, clothes boy & girl, toys. Dennis, x39012 or 992-5285. Canvas punching bag, 70 lbs, \$45. Rob, x31477

misc. Shawn, 333-6153 or 947-0656.

35 Amp 5 volt plus minus 12 volt supply, \$30; wire 10 conductor 18 AWG over 250' make offer; Ohmite Rheostat 60 Hz 2.4 amp, \$15. Tom, 996-5835.

Bicycling roller trainer, \$60; wood drawing table, \$60, Scott, x30998 or 480-5508

Roundtrip tickets anywhere Southwest flies, \$250 neg. Rondy, 996-0876. Sesame Street playhouse, good cond, \$30/obo; baby furniture. Vicky, x45200 or 484-6462.

Kg sz waterbed, \$75; 2 Cerwin Vega ported monitor speakers, \$125/ea; rabbit fur jacket, \$100. Doug, 998-7006. Reicle ski boots, sz 11.5, \$50; Nordic ski boots, sz 12. \$150/obo; Holley 850 cfm carburetor dbl pumper, \$100/obo 4-15" steel wheels w/trim acc, Amigo, \$75/obo. Paul,

x40282 or 338-4535. Golf clubs, bag, cart, \$250; port manual typewriter, \$25; elect port typewriter, \$35; ice skates, ladies, sz 8m, \$25; bronzeware, 159 pcs, \$75. 333-3672.

White eyelet comforter/bumper pags, \$20; Century carseat/carrier, \$15; FP potty, \$5; Cosco heart-to-heart snugli, \$5; FP 3-in-1 travel tender, \$50; maple crib & chang-

ing table w/matt, \$325/set. Sharon, x38506 or 480-2646. Bearcrafter windsurfing racks, \$75; Joelle designer wedding dress sz 6-8, \$800; bridal slip sz 6, \$10; amethyst bridesmaid dress, sz 4-6, \$60; julcer, \$20. Su, x45722.

Artist aluminum easel, \$175; Autograph AG 100 projector,

\$120; north light w/stand, \$45; electric flush stapler, \$25

SCM electronic typewriter, w/extras, \$50; Kenmore topline canister vacuum, ex cond, \$35; Signature zigzag sewing mach walnut cabinet, \$50, 946-3907. RG 38 special, \$100; RG32 S&W long, \$75; RG 22 & 22

magnum, \$50. Bob, x34409 or 393-1670 Toro push lawnmower, good cond, \$65. x31610. Soloflex wt machine w/butterfly & leg extension, attachment, \$700; Papassan chair, \$40; free standing book shelf, \$20. Kevin, x38367 or 286-7835.

Stainless steel propellers for Johnson/Evinrude V-6 notors, \$150/ea; 2 barrel intake manifold, carbarator, air cleaner for GM 305/350 motor, \$50, x47812 Arcade type coin operated Pinball machine, new \$1.2k sell

\$800. Glenn, 280-4564 or 332-1852. Old 3¢ commemorative stamp collection, 6,720 stamps

Treadmill, self pwr w/slope adi & electronic monitor/timer \$100/obo. Jim, x34774 or 332-6302 MIR rend/dock T-shirt, \$7.50, x31633 or 282-3479

Barometer, 3-gauge, \$10; small arm chair, \$10. 488-5564. Framed picture "James Dean" 3' x 4', \$70; Nagel "The Book" framed print, 16" x24", \$25; light blue girls twin hdbd, dresser, mirror, bookcase/desk, \$225. x33187 or 488-5166. Carrier 1 ton A/C & 1 ton elect heater package unit, wall mount, \$85, x33187 or 488-5162.

Performer intake & Lunati cam 000/0LK for small block Chevy. Bobby, x38823 or 337-4134. Chevy truckbed Duraliner, overrail bedliner for shortbed,

Twin sz matt/box spring/frame, \$100/obo; 8" electric Weedeater, \$15; PC-XT, 20MB HD, math co-processor, 2400 baud modem, amber monitor, misc S/W, \$50/obp, Tony. x38839 or 992-8669. Apple II E w/mon, kybd, S/W, games, 4 ext FDs & ext HD,

\$50; Soundshaper 5 band equalizer for home use, \$20; Kenmore 14 stitch sewing mach w/access, \$35; Pro-Force pneumatic rowing machine, \$35; Pentax 50 mm bayonet mount lens \$10, 482-3428 Chevy 283 power pack motor running, \$400 or trade for

running 350 Chevy, Tom. 996-5835. Evolution 3 full Jeep Wrangler cover, \$80; Tuffy security console for Jeep Wrangler, \$125. Phil, 480-9105 or 333-6372

10" pwr miter saw, DeWalt 60 tooth carbide Freud blade, elect brake, ex cond, \$90; Emerson digital port CD player MDL #AD2525 w/case, AC pwr adapter, auto adapters, \$85; Luxo magnifier/swing arm lamp, weighted table top base, excond, \$65. Doug, x48851 or 486-7412.

1990 Upper Deck, \$50; '89 Upper Deck, \$125; '87 Topps, \$36: '86 Topps, \$40: '85 Topps, \$80; '80 Topps, \$275; desk, \$20; 9 190-1911 Tobacco baseball cards, \$100; water/juice carbonation unit, \$20/obo. Tony, x47401 or 482-4156.

Meeting Special Needs

JSC Child Care Center raises sights to support parents of blind child

By Kelly Humphries

f you want to be supportive to Alison Rickerl, don't tell her that her new daughter, Madison, was meant to be blind.

Don't tell her that things could be a lot worse. Do offer to aid her in her search for agencies and support groups that help parents who must care for children with special needs. Do keep an eye out for special toys that can help stimulate her daughter.

In other words, do the things that the JSC Child Care Center and members of Space Family Education Inc. have done for her, the things that have earned them a JSC Group Achievement Award.

The award, presented on behalf of JSC Director Dr. Carolyn L. Huntoon by Mission Operations Director John O'Neill at the Dec. 13 MOD Recognition Day, reads: "The JSC Child Care Center employees and the Space Family Education Incorporated members are cited for their sustained excellence and quality in caring for the children of the Johnson Space Center and contractor employees."

Rickerl's nomination came from the heart. Her story began even before her second daughter was born, at a time when her first daughter, Meglyn, was on the waiting list to get into the JSC Child Care Center. Her mother, who works in the MOD Systems Division's Advanced Projects and Planning Office, and father, Ted, who works off-site at Rockwell in flight design and proximity operations, joined SFEI and waited patiently for a spot to open up, keeping Meglyn in an off-site day care center.

"I was miserable and had difficulty concentrating for the six months she was there because I didn't like the caregivers or the food they served, and she repeatedly came home with diaper rashes and various illnesses, which

kept me from coming to work on several occasions," Rickerl remembered.

When Meglyn was 22 months old, Rickerl began maternity leave and was able to care for her at home until after the new baby was born. Then, openings for both children became available.

"From the time Meglyn started there over six months ago, she has never had problems with illnesses or diaper rashes, nor have I had to stay home from work with her," Rickerl said. "This was reason enough to make me sing the praises of the JSC CCC."

Then, two days before she was scheduled to go back to work and her new daughter, Madison, was to begin staying at the Child Care Center, the Rickerls' world was rocked. They found out that Madison was blind.

Rickerl said the news was broken to her rather abruptly by the ophthalmologist, who did not supply-her with any-information-about how to care for or seek help for her sightless daughter. Madison's condition is called optic nerve hypoplasia and it is literally a one-in-a-million occurrence.

"After the initial shock, all I could think was that I would have to quit my job in order to stay home and provide for Madison's needs appropriately, regardless of the cost to my career, future, or financial status," she said.

After some investigation of Madison's needs, a review of their leave and financial status and armed with the knowledge that the Child Care Center was five minutes away and willing to help, the parents decided to try it out and Rickerl went back to work.

"From the moment everyone there found out about her blindness, they have been very supportive and worked extra hard to stimulate her, and help me track down agencies that can help us and them provide for the needs of a handicapped child," she said. "They have been working with us and her and have made me feel comfortable with coming back to work and leaving her in their care."

JSC CCC Director Fran Brockington said many of the care givers at the center had been through classes and workshops that included how to care for special needs children, but none had had an opportunity to use those lessons.

"We weren't prepared for any event like that," Brockington said. "We had all kinds of questions to begin with. But we did some research, and Alison did some research. She printed up sheets on how to play with Madison and we ordered a bunch of books that will help us."

Because Madison can't see, she has to be stimulated and encouraged to do a lot of things that other babies do naturally, such as reach for and grasp objects, roll over and crawl.

Prefessional therapists also are needed to make sure that if she does have any portion of her sight, that it is exercised and encouraged.

When Madison's therapists first started showing up, they arrived at the same time and it caused some disruption for the other children. Since then, a schedule has been worked out that brings one therapist at a time on different days.

"We have to be constantly on the alert to make sure we're giving Madison the attention she needs, but at the same time we also have to make sure we're giving the other children the attention they deserve," Brockington said.

Rickerl said she appreciates the special care Brockington and Madison's primary care givers—Traci Nivens and Gail Williams—provide. She also lauded the work of Brockington's assistants and teacher substitutes—Barbara Rose, Diane O'Grady and Aline Meek—and other care givers such as Sandy Esquivel, Chaneatha Woods, Vicci

Garza and Carman Shivakumar, who have volunteered their help.

"Fran helped get us started with Project Launch, an early childhood intervention program, and makes sure Madison is well cared for and properly stimulated while in the infant room," Rickerl said. "Fran also helps us by visiting Madison often to play with her one-on-one in the infant room and by being there always to listen to my concerns and help us reach agreements on her care. Fran keeps me informed about who is visiting her, her latest games she enjoys, and her motor skill accomplishments."

The SFEI is a non-profit parent owned organization that manages the JSC Child Care Center. The SFEI consists of members who may or may not have children enrolled at the CCC or on the waiting list and is governed by a board of directors. Its contractors provide the care-giving, teaching and administrative services. Many SFEI members also have shown support for the parents as they learn to cope with their new responsibility.

"Other mothers in the infant room, especially Mary Beth Edeen, Gretchen Thomas and Deena Haynes have been very encouraging by listening and showing their concern, watching over Madison when they are there and I am not, and reporting to me on her care to reassure me," Rickerl said.

They've also helped by offering to baby-sit Meglyn while Madison's medical testing and therapy were completed and fabricated special tactile toys.

And, although the Child Care Center is located on-site and all of its members are civil service or contractor employees at JSC, the award was an affirmation of that connection.

"I think it makes us feel even more a part of NASA," Brockington said. "It kind of makes us feel accepted as part of the NASA family."

□







Top left: As JSC **Child Care Center** workers watch over their young charges on the Infant Room, they discuss special activities that will contribute to Madison Rickerl's development. Clockwise from left, Diane O'Grady holds Cameron Bailey, Traci Nivens holds Samantha Shepherd, Fran **Brockington, Gail** Williams, Alison Rickerl with Madison, Mitchell Licht (child bottom center). Bottom left: Rickerl plays with Madison as Licht, O'Grady (holding Cameron Bailey), Nivens and Brockington offer support and encouragement. **Bottom right:** Rickerl and her daughter.

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NASA to wind-tunnel test supersonic jet fighter

Wind tunnel tests will begin this summer on the X-32, a proposed 21st Century supersonic jet fighter.

Up to three eight-week tests of the X-32 Common Affordable Light-weight Fighter will be conducted at Ames Research Center in the National Full-Scale Aerodynamics Complex 80-foot by 120-foot wind tunnel. One additional eight-week test is planned at the NFAC's Outdoor Aerodynamic Research Facility. The X-32 could be introduced into service around 2010.

"The idea is to have a conventional take-off and landing aircraft that could be configured for short take-

offs and vertical landings," said Douglas Wardwell, an Ames aerospace engineer. The short take-offs and vertical landings version of the new aircraft could share a common fuselage and engine with the conventional take-off and landing aircraft, but use a powered-lift propulsion system for vertical landings.

Tests of the proposed \$120 million X-32 are part of the Joint Advanced Strike Technology program. The goal is to demonstrate technologies and operational concepts to make military aircraft more affordable. The program's participants are the Advanced Research

Projects Agency, the Department of the Navy and Department of the Air Force.

NASA will provide wind tunnel time and personnel to conduct requested tests at NASA facilities and also will provide technical expertise to support the program.

Wind tunnel tests of small-scale models of the X-32 already have been conducted at many test facilities including Ames and at Langley Research Center and Lewis Research Center.

NASA plans to test large-scale conceptual models of the X-32 designed by McDonnell Douglas

Aerospace Co, Lockheed Advanced Development Co., and possibly Boeing Defense and Space Group. The X-32 tests are scheduled to continue through the summer of

Test engineers have made preliminary predictions that some of the model tests at the highest power settings could generate noise levels up to 83 decibels for periods not exceeding two hours per day at the residential property line closest to the wind tunnel. An 83 decibel noise level is comparable to the noise heard by a person operating a lawn mower or food blender.

However, during a typical test day, engineers say nearby residents are expected to experience outside noise levels of no more than 60 decibels.

Because of the potential for noise generated by some of the tests at Ames, NASA is preparing an environmental impact statement for the X-32 tests. As part of the project's EIS process, public meetings will be held to inform local residents of the tests and to listen to comments and environmental concerns about the proposed plan. The first meeting is currently being planned for early February.

New Exchange Council officers sworn in for '95

A new NASA Exchange Council consisting of new and veteran members is now in office.

The NASA Exchange is a government, nonappropriated-fund activity established to provide for services which contribute to the efficiency, welfare, and morale of NASA personnel. The Exchange Council is responsible for reviewing the operations of the Exchange Store and providing recommendations regarding the policies, organization, scope of activity, rules, and business practices. Terms of membership expire Jan. 31, 1996.

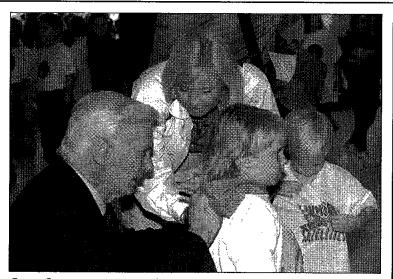
Council members are:

Harvey Hartman, chairman, NASA Exchange-JSC; Virginia Gibson, president, Employee Activities Association; Dorothy Rasco, executive vice president, EAA; Guy King, vice president, athletics, EAA; Clyde Lowrimore, treasurer; Cynthia Draughon, secretary; Teresa Sullivan, operations manager; Curtis Collins, alternate manager; Daniel Remington, legal adviser.

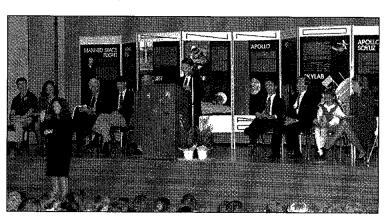
Members include, Debra Johnson, James Shannon, Lili Moore, Richard Thorson, John Arnold and William Langdoc.

White Sands Exchange Council includes James Powell, chairman, NASA Exchange-WSTF; David Amidei, treasurer; and Pieddie Baker, secretary.

Members are Troy Estes, and Larry Linley.



Gene Cernan, guest speaker for the Ed White Elementary Space Fest, autographs T-shirts for John and Erin Boettcher as their mother, Shannon Maloney Boettcher, looks on.



JSC Photos by Jack Jack

Brian Laney introduces special guests to last Friday's space festivities including from left to right, Payload Specialist Scott Hendrix, Principal Glenna Shields, former Astronaut Gene Cernan, Astronaut Mario Runco, former Principal Les Palley, Houston City Councilman Joe Roach and Ed White Jr. and his family. Standing in front, Donna Beauchman interprets for the hearing impaired.

Security alerts employees to watch for crossing deer

JSC's security officers perform a wide range of duties to safeguard the well-being of JSC employees on site

During early morning and dusk, those duties also may include acting as "traffic cop" for the herds of deer that graze on the open lands throughout the campus. The deer are forced to cross heavily-traveled Avenue B to move from their shelter among the trees to the open grazing areas.

Security officers patrol, driving slowly along the roadside. When they spot a herd of deer near the road, the officers will turn on the warning lights on their vehicles to alert drivers to the presence of the animals.

"Deer are unpredictable animals that move extremely quickly," said Security Branch Chief Kenneth

Ramke. "Aside from the trauma of hitting one of these animals, they can do a great deal of damage to your car. We are trying to protect our employees and these animals from injury."

Ramke said employees should be alert to the variety of wildlife living on site, and should show some extra caution driving whenever they see one of the security vehicles with its flashing lights in operation.

Saturday heart walk at UHCL honors former JSC employee

The American Heart Association Clear Lake Division is sponsoring the Al Jowid Memorial Heart Walk on Saturday.

The 5K walk was named in honor of the former JSC employee in recognition of his volunteer activities in the Clear Lake area.

Registration will begin at 8 a.m.

Saturday at the University of Houston Clear Lake Developmental Arts Bldg.

Prizes, ranging from T-shirts to televisions, will be given to participants who collect donations for the American Heart Association.

For additional information, call 797-1812.

NBL to be ready six months early

(Continued from Page 1)

"This arrangement has numerous advantages," said Wilbur Trafton, space station director. "It increases our confidence of delivering the NBL on schedule and on cost and it will be available earlier so that important training can begin." Trafton added that avionics facilities will be colocated with the NBL to increase program efficiency.

NASA had planned to build the NBL on site at JSC. Under this new agreement, McDonnell Douglas will construct the NBL off site in the 101,000 square foot Assembly and Test Building and will deliver the

NBL at least six months earlier than previously planned, allowing training not otherwise possible for early space station flights. Construction of the new facility will eliminate expensive dual shift training operations at JSC and the Marshall Space Flight Center. The agreement also will produce additional savings from the early shut down of JSC's existing underwater training facility. The building that will house the NBL also is large enough to carry out more concurrent activities, increasing training efficiency.

101,000 square foot Assembly and Test Building and will deliver the NASA will use the two other buildings—the 97,000 square foot Light

Manufacturing Facility and the 51,000 square foot Avionics Development Facility—for laboratory, technical support facilities and office space in excess of existing onsite and leased space. NASA will build, modify and store training mockups in the LMF. The ADF will provide contiguous laboratory space for avionics equipment and associated software development, integration and test activities.

Under the agreement, NASA also will acquire the 13-acre property surrounding the facility including a parking lot and private access to Ellington Field.

E-mail your streamlining ideas

JSC Director Dr. Carolyn L. Huntoon has established a new electronic mail address where employees can send their streamlining suggestions.

The E-mail address was created after NASA Administrator Daniel S. Goldin's television discussion of the

challenges facing NASA in the years ahead.

The Human Resources Office will act as the focal point for collecting these suggestions. Employees should send their streamlining suggestions to STREAMLINE@JSC. NASA.GOV.

Mission Control open for viewing

The Mission Control Center viewing room will be open to JSC and contractor badged employees and their families during portions of the STS-63 mission.

Based on an 11:48 p.m. CST Feb. 1 launch, employees will be allowed to visit the MCC from 11:30 a.m.-2:30 p.m. Feb. 3, 1-5 p.m. Feb. 4, and 11:30 a.m.-2:30 p.m. and 5-7 p.m. Feb. 6 and 8.

Employees must wear their

badges and escort family members through the regular public entrance on the northeast side of Bldg. 30. Children under 5 will not be permitted. No flash photography or loud talking will be permitted at any time.

Because of the dynamic nature of shuttle missions, viewing hours may be changed or canceled without notice. For the latest information on the schedule, call the Employee Information Service at x36765.

El Niño getting stronger, satellite shows

(Continued from Page 1)

atures and precipitation zones at the surface.

El Niño begins when the westward trade winds weaken and a large warm water mass, called a Kelvin wave, is allowed to move eastward along the equator in the Pacific Ocean. Data from the radar altimeter onboard TOPEX/Poseidon, recorded from October through December 1994, reveal a new Kelvin wave moving toward the western coast of South America.

"This wave is currently occupying most of the tropical Pacific Ocean. It will take another month or two before the wave disperses. Compared to the El Niño condition of the winter of 1992-93, the present one appears somewhat stronger and

might have stronger and longer lasting effects," Fu said.

TOPEX/Poseidon, a joint program of NASA and the Centre Nationale d'Etudes Spatiales, the French space agency, uses a radar altimeter to precisely measure sea-surface height. Scientists use the TOPEX/Poseidon data to produce global maps of ocean circulation. Launched Aug. 10, 1992, the satellite has completed two and a half years of its three-year prime mission and has provided oceanographers with unprecedented global sea level measurements that are accurate to better than 2 inches

"The global sea-surface elevation information provided by TOPEX/ Poseidon is unique because it is related to the amount of heat stored

in the upper ocean, which is important for long-range weather forecasting. The speed and direction of ocean currents also can be determined from the elevation information, providing another piece of critical information about the ocean, which is the key to climate change," Fu continued.

TOPEX/Poseidon is part of NASA's Mission to Planet Earth, a coordinated, long-term research program to study the Earth's global environment.

TOPEX/Poseidon's sea-surface height data are essential to understanding the role oceans play in regulating global climate. TOPEX/Poseidon will provide the first comprehensive, consistent measurements of ocean circulation.

Space News Roundup

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Electronic mail messages should be sent to the editor, khumphri@gp301. jsc.nasa.gov or the associate editor, kschmidt@ssf1.jsc.nasa.gov.

EditorKelly Humphries
Associate EditorKaren Schmidt

Atlantis' Mir docking system being tested

(Continued from Page 1)

boosters for the STS-67/Astro-2 mission, which is scheduled to be launched on March 2. The crew—Commander Steve Oswald, Pilot Bill Gregory, Mission Specialists John Grunsfeld, Wendy Lawrence and Tammy Jernigan and Payload Specialists Sam Durrance and Ron Parise—will travel to KSC on Feb. 13 for a three-day dress rehearsal of the countdown.

Atlantis is also undergoing processing for the first docking mission with Mir, STS-71, which is scheduled to be launched later in the spring. Work is focused on the testing of the orbiter docking system, which will enable Atlantis to gently linkup with Mir two days after liftoff.

NASA-JSC