

# Space News Roundup

Vol. 23 No. 23

December 21, 1984

National Aeronautics and Space Administration

## News Briefs

### 51-C launch date set

The first dedicated Department of Defense mission aboard the Space Shuttle, STS-51-C, is now scheduled to launch from the Kennedy Space Center no earlier than Jan. 23, NASA announced Dec. 17. The mission is the first completely dedicated Department of Defense flight. STS-4, which flew a DOD payload as part of its cargo, was primarily a final development mission as part of the Shuttle Orbital Flight Test Program. Crew members for the 51-C mission are Commander Thomas K. Mattingly, Pilot Loren Shriver, Mission Specialist Ellison S. Onizuka and James Buchli, and DOD Payload Specialist Gary Payton.

### IRAS catalog available

The largest and most detailed catalog of infrared celestial objects ever created has been completed by the international science team working with results of the Infrared Astronomical Satellite (IRAS). The IRAS survey mapped 96 percent of the entire sky, and is being called a milestone in the history of astronomy. The catalog contains roughly 130,000 stars, 20,000 galaxies, and 40,000 objects of all types within our own galaxy.

### Hearth leaves NASA

Dr. Donald P. Hearth has left his position as Director of the Langley Research Center and will become Director of Space Science and Technology at the University of Colorado in Boulder in March. Langley's Deputy Director, Richard H. Petersen, will succeed him. Paul F. Holloway, Langley's Director for Space since May 1975, has been named Deputy Director of the center. Hearth had been director at Langley since 1975. He joined NASA in 1962 and has held various agency positions, including Deputy Director at Goddard and Director of Planetary Programs at Headquarters.

### Writing course planned

Registration is now open for an executive writing course being sponsored by the Air Force Manned Space Flight Support Group at JSC. Instructors from the Air Force Academy Department of English will present the four-hour class, which offers practical ways to improve official writing. The course will not deal with grammar and punctuation, but it will stress how writing can be made more compact, informal and organized. The class will be tailored to the JSC audience, using samples of JSC and Air Force correspondence. Class registration is open to all NASA, contractor and Air Force personnel. The deadline for registration is Jan. 15. To register, contact Capt. Gary Barbaro, x 4053/FE5, or Capt. Roger Van Epps, x6591/FE441.

### Road construction starts

They've started moving dirt on Avenue E near the JSC Federal Credit Union, part of a project which will result in a four-lane road leading out of JSC past the Saturn V display and the Credit Union and on toward Bay Area Blvd. Friendswood Development Company will be widening Saturn Lane into a four-lane road from Gemini to the JSC Gate. From that point, the road is called Avenue E, and JSC also plans to turn it into a 4-lane thoroughfare. Construction is expected to be completed by Feb. 1.

### New Year's dance set

A New Year's Eve dance will be held beginning with a social hour at 7 p.m. Dec. 31 at the Gilruth Recreation Center. Music will be supplied by the Russell Jackson Orchestra. A prime rib dinner will be served at 8 p.m. and dancing begins at 9 p.m. The cost is \$17.50 per person. Tickets are on sale in the Bldg. 11 Exchange Store until 2 p.m. Dec. 27. The dance is being sponsored by the EAA.



It began to look a lot like Christmas recently, when Center Vegetation Control trimmed out a tree on the lawn near JSC's front gate. Here workers install the traditional star at the top of the tree.

## Artificial comet visible in west Christmas Day

History's first artificial comet is scheduled to appear in the skies over the western United States, Hawaii and parts of the Pacific Ocean early Christmas morning, and should be visible in Houston if the weather cooperates.

The comet will form when four 5.5-pound canisters of barium are released from a satellite as part of a series of studies of the Earth's magnetosphere.

December 25 was selected for the barium release because there will be a new Moon and the release site will be within view of U.S. observation points and U.S. and British satellites.

The Christmas comet will be visible to the unaided eye for up to 10 minutes (20 minutes with 7x50 binoculars) at four degrees west of Spica in the constellation Virgo in the southeast sky at 6:18 a.m. CST. Visibility will be from west of a line connecting Mexico City, Houston, St. Louis, Milwaukee and Canada's Belcher Islands to the eastern Pacific, including Hawaii.

The barium release is one of seven experiments being conducted by AMPTE, the Active Magnetospheric Particle Tracer Explorers project. AMPTE consists of individual satellites from the U.S., the United Kingdom and the Federal Republic of Germany. The three satellites were launched on a Delta rocket Aug. 16 from Cape Canaveral. The magnetosphere is an envelope of magnetic field and charged particles surrounding the Earth, extending approximately 40,000 miles toward the Sun and at least 4 million miles away from the Earth's night side.

The West German satellite will release the four canisters of barium while near its apogee of 70,160 miles. The release will be monitored and analyzed by its British companion, traveling 3 minutes behind, while, in another orbit, the American satellite does the same.

If viewing conditions are not acceptable for the comet experiment on Christmas Day, it will be rescheduled to Dec. 27. Two further barium and lithium releases are planned for the Earth's magnetotail in February-March of 1985.

## They call it VB-8B

Kitt Peak astronomers observe object which would dwarf Jupiter

Astronomers last week reported evidence of an enormous planetary object circling a star 21 light years from Earth, a finding that could represent the first observation of a planet outside our solar system.

The researchers said Dec. 10 that this is the first claim of a planet orbiting a nearby star that is supported by direct observational evidence and not indirect measurements.

The object orbits 600 million miles from the star Van Biesbroeck 8, or VB-8, which was discovered in 1961 by astronomer George Van Biesbroeck. The star, located in the Milky Way constellation Ophiuchus, is about 21 light years—or about 126 trillion miles—from Earth. It is only about 10 percent as massive as Sol, Earth's sun, and about one third as hot.

VB-8's companion, named VB-8B, is estimated to be 30 to 80 times more massive than Jupiter.

The discovery was made by a team of scientists from the University of Arizona, the National Optical Astronomy Observatories (NOAO) and the National Science Foundation. The object was detected with the use of a technique called infrared speckle interferometry using the 158-inch Mayall Telescope at the Kitt Peak National Observatory and the 90-inch telescope at the University of Arizona's Steward Observatory.

Drs. Donald W. McCarthy and Frank J. Low of the University of Arizona, and Dr. Ronald G. Probst of NOAO, told the Associated Press that this was the first time a planetary companion to a star actually has been seen. The scientists released an electronically derived image which shows VB-8 and VB-8B as distinct objects.

The science community has long theorized the presence of planets orbiting other stars, but has inferred their existence only

by indirect means, such as measuring the gravitational wobble of stars caused by nearby bodies, McCarthy said.

The astronomers used a technique to detect infrared emissions, or a heat signature, from the planet and were able to separate those readings from the signature emitted by VB-8.

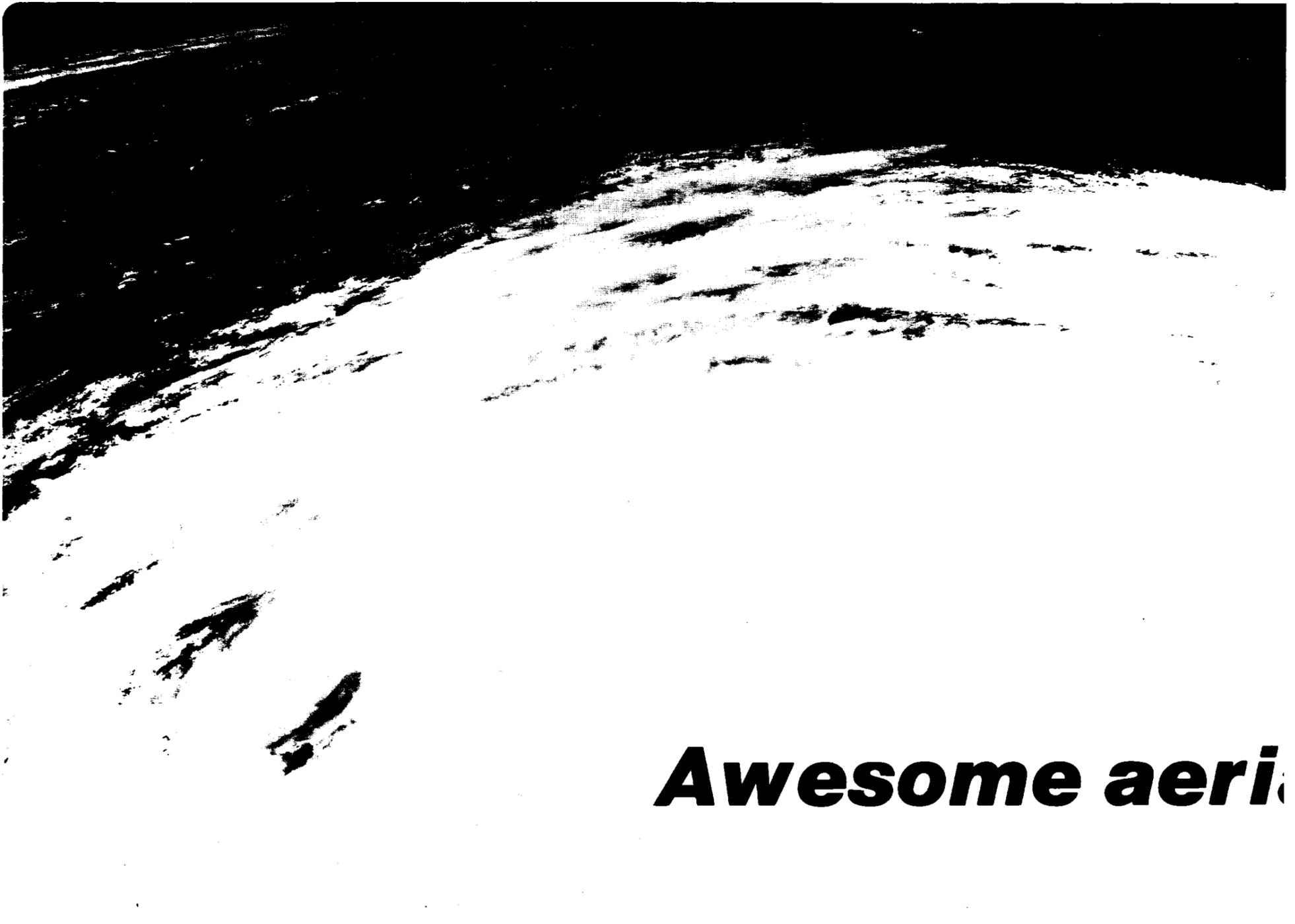
In 1983, the Infrared Astronomical Satellite, IRAS, scanned the sky at a different region of the infrared wavelength and detected more than 40 stars—including the well known sun Vega—that may be orbited by planets or other solid material. In October, Dr. Bradford A. Smith, also of the University of Arizona, and Dr. Richard J. Terrile of the Jet Propulsion Laboratory, used data from IRAS to photograph a vast swarm of solid particles around the star Beta Pictoris, which is 50 light years from Earth.

The circumstellar disk photo-

graphed around Beta Pictoris had been swept clean in some regions, indicating the possible existence of planets. But the astronomical community has not yet been able to say for certain if planets actually do circle that star.

McCarthy said VB-8B "is too dim and too cool to be a star." It appears to be gaseous and without a solid surface, and has a temperature estimated at 2,000 degrees Fahrenheit. The surface temperature of VB-8B is 3,000 degrees F, while the surface temperature of Sol is 9,900 degrees F. "If we could see the planet, we think it would look very much like Jupiter," McCarthy said.

More studies are needed, he said, to determine precise characteristics of the planet, such as its orbital period, mass and chemical composition. The findings of the team have been submitted to the *Astrophysical Journal of Letters*.

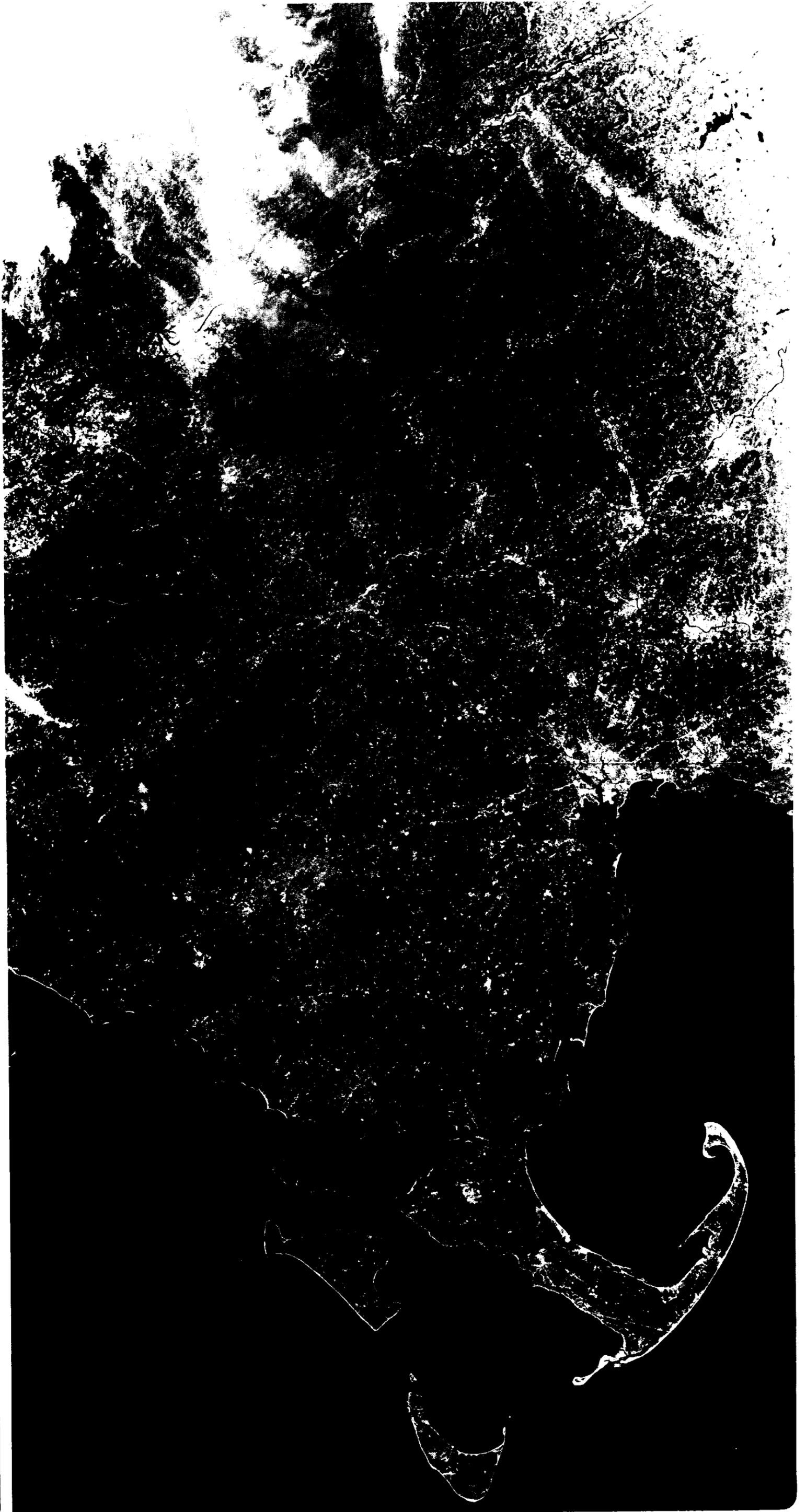


***Awesome aerial***



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**T**here are aerial photographs, and then there are aerial photographs. These views, taken with the JSC-sponsored Large Format Camera during Mission 41-G, illustrate what we mean. The photo at right, printed here only slightly smaller than its large format negative size of 9 by 18 inches, is a dramatic view of Cape Cod and parts of five New England states. Visible are Boston and Providence, as well as jet trails over Cape Cod itself. The view encompasses some 24,500 square miles. At top, the storm which for a time threatened a KSC landing for 41-G, Hurricane Josephine, was photographed from an altitude of 147.5 statute miles. The distance to the horizon in this view is over 1,000 statute miles, and a sector of the horizon equal to 1,900 statute miles is visible. At far left, the Kennedy Space Center area of Florida is visible in a view taken from 142 statute miles up. Some 22,900 square miles were covered by this one photo. At left, another view of the U.S. shows the Permian Basin and the Midland/Odessa area of Texas. The many white dots in the photo are oil wells; the larger, darker circles are irrigation projects. The photo was taken from an altitude of 160 statute miles.



# Roundup Swap Shop

Ads must be under 20 words total per person, double spaced, and typed or printed. Deadline for submitting or cancelling ads is 5 p.m. the first Wednesday after publication. Send ads to AP 3 Roundup, or deliver them to the Newsroom, Building 2 annex. No phone-in ads will be taken. Swap Shop is open to JSC federal and on-site contractor employees for non-commercial personal ads.

## Property & Rentals

For rent: Mobile home lot, Dickinson, 50' x 120', 200 AMP, trees, \$85/mo. Call 333-3446.

For lease/sale: El Dorado Trace Condo, 2-2-2, FPL, kitchen appliances, W/D, fan, wet bar, security/smoke alarms, new paint and draperies. Call Rose, 486-1341 or 488-6046.

For sale: 1.8 acres in Friendswood, all utilities, \$29,500. Call Janice, x5867 or 482-6888.

For sale: Wildwood, Seabrook, 4-2-2, excellent condition, \$8,000 equity, assume 12 1/2% fixed 30-year loan. Call Huysman, x6557 or 474-7020.

For rent: Condo, 1-1, furnished, \$275/mo. plus \$75 deposit. Call Rick, x5341 or 480-8223.

For lease/sale: Forest Bend, 3-2 1/2-2 CP, townhouse, park, maintenance, \$495/mo. plus deposit. Call 333-2322.

For sale: Dickinson, 2-1, 1982 mobile home, 14' x 64', adult section of beautiful park with pool, lots of extras, energy efficient, \$2,000 and assume \$297/mo. Call Jan, x5827.

For sale/lease: La Porte/Bay Pointe townhouse, 2-1 1/2-2 CP, clean, quiet, fenced patio, \$42,000/\$450. Call 488-4135.

For sale: University Green, 2-2-2, patio home, split bedroom design, many extras, reduced price, \$83,900. Call 488-0500 or 480-6516.

For rent: Rooms in League City house, furnished bedroom, den with TV, 3/4 bath, private entrance, kitchen/laundry privileges, phone/cable/utilities provided, \$300/mo. Call Joyce, 486-4420, x413 or 554-7380.

For lease: Share equity buildup, \$540/mo., League City, 3-2-2, FPL. Call Wesley, x2320 or 488-4197.

For rent: Lot 36' x 125', all utilities, good for mobile home. Call 488-1758.

For rent: Galveston Gulf-front condo, treat yourself to a relaxing 2-day to 1-month vacation in this completely furnished condo, low seasonal rates. Call Nussman, 488-7762.

For sale: League City, 3-2-2, FPL, large lot, oversize garage, newly redecorated, \$73,000, owner finance at 12%. Call 332-3287.

For lease: El Dorado Trace, 1-1-1 CP, great location overlooking pool, 2 balconies, FPL, W/D, ceiling fan, mini-blinds, alarm system, sauna & whirlpool, like new, \$360/mo. Call Mark, x6301 or 554-2536 after 6 p.m.

For lease: Condo, new paint/drapes, W/D, FPL, covered patio, free access to sauna/pool/exercise room, close to NASA and shopping center, \$350/mo. plus \$200 deposit. Call 334-2282.

For lease: Forest Bend, 3-2-2, fenced, FPL, painting skills? Will negotiate on rent for good painting work. Call 482-0275 evenings & weekends.

For lease: Baywind 1, 2-2-2, on Saturn Lane, new carpet and A/C, FPL, \$400/mo. Call Mike Foale, x3310 or 538-4363.

For sale: Countryside, 4-2-2, 10' x 10' shed, 16' x 12' deck, garage opener, fence, mini blinds, oversized lot, cul-de-sac, much more, military move, \$72,500. Call 554-2383.

## Cars & Trucks

For rent: Mini motor home, self-contained including onboard power plant, roof air, the comforts of home on wheels, daily or weekly rates. Call Dave, x5111 or 480-0202 after 5 p.m.

1977 Pontiac Bonneville, PS, PB, AT, A/C, stereo, brown/beige, fine condition, \$2,195. Call (409) 925-3036 after 5 p.m.

1981 Olds Cutlass Supreme, Brougham Diesel, loaded. Call Rick, x5341 or 480-8223.

1981 Buick Century Limited, air/power, vinyl roof, wire wheel covers, AM/FM stereo, mint condition, low mileage, \$5,995. Call Thompson, x5305 or 488-7427.

1968 Camaro, original motor with 300/mi. auto trans. and 200 mi. new tires, Mags, Int., very clean, no rust, all metal, 310 HP, 390 watts of sound. Call 559-1106

1984 Toyota GTS Sportscoupe, AM/FM cass. equalizer, sunroof, cruise, 5-speed, white w/blue interior. Call Michelle, x5094.

1980 Datsun 280ZX, Mahogany, GL package, T-Top, Michelin tires, runs and looks great, 6,300 miles, \$7,500. Call 280-4125 days, 534-3657 evenings.

1982 Datsun 280ZX Turbo, auto, T-Top, blue, 22K miles, rear window shade, fully loaded, \$11,700 firm. Call 280-8490.

1964 VW Baja, very sharp, sun roof, stereo, new engine, \$1,495. Call 488-6433.

1977 Ford custom van, excellent condition, no rust, \$5,500. Call 488-6433.

1977 Buick Regal, V-8, excellent condition, 68K miles, loaded, \$1,800. Call 332-5225 after 5 p.m.

1979 Olds Toronado, fully loaded, excellent condition, \$4,900. Call x6347 or 482-5837.

1980 Chevy 1/2 ton van, A/C, PS, PB, excellent condition, \$3,400. Call x5347 or 482-5837.

1984 Plymouth Colt, 14K miles, A/C, excellent condition, \$5,500. Call Steve, x3115 or 488-7708.

1980 gold Datsun 310GX, AM/FM stereo, A/C, new exhaust system, 45K miles, needs speedometer and some upholstery work, \$3,500. Call 996-0289 after 5 p.m.

1979 red Ford Fiesta, standard, new engine, 4-speed, A/C, AM/FM, sun roof, runs like new, \$2,200. Call 488-8571 days, 480-0513 after 6 p.m.

Two 1971 Toyota Corollas, one engine partially rebuilt, other is stripped, bodies good condition, will sell parts. Call Ray, x6327 or 996-1966.

1980 Chevy Malibu, V-8, A/C, 4-door, AM/FM stereo, \$3,300. Call 485-6222.

1979 Triumph Spitfire 1500, convertible, candy-apple red (original paint job, good), AM/FM radio, good running condition. Call Beverly Barrow at 486-5492.

1977 Dodge Surveyor Maxivan (self-contained, mini motor home), sleeps 4, excellent condition, many extras, \$5,350. Call John K., x6451 or 331-5751.

1979 VW Dasher, std, A/C, PB, AM/FM stereo, 2-door, HB, 50K miles, \$2,500. Call D. Long, 538-1816.

1980 Plymouth Champ, 2-door hatchback, like new, 45K miles, 30+ MPG, A/C, AM/FM cassette, \$3,000. Call 482-8246 after 6 p.m.

1967 VW Fastback, 1600CC, dual carb. engine, great work car, needs brake work. Call 554-2383.

1976 Chevy Malibu Classic, 305 cu. in., 2-door, PS, PB, PW, A/C, AM/FM, 89.5K miles, body damage, \$600 or best offer. Call Dennis, x5425 or 480-5955.

1978 Ford Fiesta, A/C, AM/FM cassette, excellent condition, \$1,500 or offer. Call Bud Chatterley, x3201 or 480-9367 after 5 p.m.

1978 Toyota Cressida wagon, A/C, AT, PS, low 52K miles, excellent condition, \$3,975 or best offer. Call 480-0909.

1970 Datsun, PL-510, needs battery/carb./clutch. Also, have many new parts for this car, including carb., & clutch, will neg. package deal, Call Herman, x4805 after 4 p.m.

## Boats & Planes

Sailboat, 14' Vagabond with trailer, perfect for racing or pleasure, brown and orange sails. Call Adrian, x5457 or 774-0129.

Bellbouy, 14', Mercury 40HP outboard, trailer, \$1,100 neg. Call 488-1758.

Skeeter Bass 15' boat, 50HP Johnson motor, trolling motor, depth sounder, etc., \$1,900. Call Don, 280-6307 before 5 p.m. weekdays.

## Audio & Visual

Phase Linear 9500 compact disc player, full-featured programmable, 6 mos. old, asking \$600. Call Ron Z, x3035 or 480-8076.

Stereo AM/FM radio and cassette for car, Clarion model 5100R, reverse, metal tape, 4-way balance, \$45. Call 482-4260 evenings.

## Cycles

1972 Honda 750cc, like new, 20K miles, garaged all its life, \$1,200. Call Cleary, 337-6263.

Wards "Open Road" BMX bicycle, mag wheels, knobby tires, ape hanger handle bars, \$70. Call Whitmore, x7241.

1974 Suzuki 185cc, electric start, low miles, \$300. Call Jack, x2285 or 482-2956.

Suzuki 250 dirt bike, good condition, \$300. Call 482-2527 after 5 p.m.

## Household

Gibson frost-free refrigerator/freezer/ice maker, harvest gold, \$200. Call Whitmore, x7241 Ellington.

Litton microwave "Meal-in-One," digital touch control, rack for cooking multiple dishes, probe, micro-browner, \$650 new, \$300. Call Terry Brooks, x5384 or 488-2795.

Solid ash bedroom suite - twin beds (bunkable), chest-on-chest, night table, \$395; 2 sets twin springs/mattresses, \$50; Maytag washer (white), \$75; Sears dryer (coppertone), \$95; student's corner desk, 3-drawer chest and bookcase set, \$195; 5-drawer chest, \$30; metal drop leaf table, \$15. Call 482-0275 evenings and weekends.

Beautiful dining room hand-carved decorator table with two hand-carved bases, \$350; large gold-leafed 3' x 5' glass top decorator coffee table, \$350; portable 5-inch B/W TV, new, \$60. Call 488-5564.

Girl's French Provincial desk, good condition, \$50; sofa, multi-colored velvet, good condition, \$175. Call Lottie, x4846 or 554-5426 after 7 p.m.

Gas dryer, heavy duty, perfect condition, \$150. Call Don, x3078 or 484-4261.

King size waterbed with heater, bookcase headboard, walnut, \$100. Call 488-8571 days, 480-0513 evenings.

## Computers

TI 99/4A system, console, P-box, disk, mem. exp., RS232, cassette, all cables, ex. basic, min. mem., EO/ assembler, many peripherals, cartridges, S.W. titles. Call Bill, x5437 or 991-0361.

Software for TRS/80/4 for novice. Call Debi, 333-2617 or 996-1528 after 6 p.m.

IBM-PC, 256K RAM, 2 DSOD drives, hi-res. color, printer port, warranty, \$2,600. Call Barry, x5156 or 328-5017 from 5-7 p.m.

## Pets

AKC registered Golden Retriever puppies, champion bloodline, good breed, intelligent, born Nov. 31, 1984, weaned Jan. 16, 1985, male \$250, female \$200. Call Chuck Johnson, 332-8191 after 6 p.m.

## Miscellaneous

Barbeque pit on wheels, firebox grill, 10-brisket cooking area, extra large smoker/warmer, prize winner, \$1,800. Call Whitmore, x7241 Ellington.

IBM electric key-type typewriter, \$175; antique key-wound watch, \$90; 100 National Geographics, \$25; beautiful hand-built sailing vessel, approx. 3' long on display platform, \$50. Call 488-5564.

Michelin XA P205 R15 tires with 4/32" tread depth, \$40; Beautyrest mattress, like new, full size, \$75. Call Jack, x2591 or 896-8085.

Antique pocket watch, suspect it was an award for some athletic event because of pictured engraving on case, it is oversize at 2 1/4" dia. by approximately 3/4" thick, offers considered. Call Joe, x4905 or 944-6513.

Window A/C unit, 30 mos. old, used only 6, excellent condition, EER-6.0, \$250. Call 554-6154 evenings.

GE Potscrubber dishwasher, built-in model with 4 different colored front panels, 5 cleaning cycles, \$125. Call 474-3500.

Prince!!! Friday, Jan. 11 show, 4 tickets left, \$96 ea. Call 781-4878.

Two duplex dog houses (big dogs), excellent condition, \$125 ea. Call Lottie, x4846 or 554-5426 after 7 p.m.

Garage door opener, Sears w/changeable code, 2 remote operators, all hardware included, \$100. Call 480-1114 after 5 p.m.

Noblet wooden clarinet with case, 5-string banjo with case. Call 488-0597.

Wards portable electric typewriter, low mileage, works perfectly, \$95; hobby electronics kit, \$5. Call 482-0275 evenings and weekends.

Darkroom sink, 72" x 28" x 14" deep (one end), never used, \$140; Graylab Model 400 timer, \$30. Call Bob, x5041 or 585-5489.

Firewood, seasoned oak, split, \$110/cord to local area, \$90 you pick up. Call Steve, x6128.

Shimano 250 SG fishing reel with magnetic drag control, brand new, \$50. Call Don, 280-6307 before 5 p.m. weekdays.

Unused VW Bug replacement seat covers (front & back), \$10. Call 482-0275 evenings and weekends.

Weights (150 pound) with long and short bars, bench with reclining back and leg bar, \$50 for all. Call Steve, x6128.

## Wanted

Electric trains, wanted to buy. Call Don, x2449.

Want to babysit for one 6-12 month old baby, Christian home, Camino South, after Dec. 31. Call 486-5094.

Housemate to share 3-BR house in Middlebrook, no pets, prefer non-smoker, \$300 plus half utilities. Call Jim, x5378 or 480-5129.

Carpool: Missouri City/SW Houston. Call Al Ruder, 486-1392 or 772-3207 after 6 p.m.

Someone to drive my car from Houston to Boston between Dec. 25 and Jan. 1. Call 480-0909.

## Blood drives planned

Thirteen blood drives will be held within the JSC community in 1985, according to Program Chairman Helon Crawford. The blood drives will all be held at the Gilruth Recreation Center, B207 Auditorium. The blood drives are being sponsored by JSC, Lockheed, Rockwell and McDonnell Douglas. To make an appointment for March 7, July 25 and December 5, call Helon Crawford, x5238, Bob Jones, x6251, or Jim McBride, x6226. For appointments on April 4, August 8 or December 12, call Bob Bose or Janell Bennett at 333-5411. For appointments on February 7, April 11, July 18 or November 7, call Linda Eaves at 333-2030. For appointments on January 31, May 9 or September 19, call J.E. Vondette or Jeannie McQuillion at 488-5660, x212.

## Gilruth Center News

Call x3594 for more information

**Basketball Registration** — Registration for the new Basketball League begins Jan. 2 and will be accepted until Jan. 28. Play begins the first week of Feb. Leagues will be as follows: Mixed - Mondays; Mens A - Tuesdays; Mens B - Wednesdays; Mens C - Thursdays.

**Volleyball Registration** — Registration for the new Volleyball League begins Jan. 2 and will be accepted until Jan. 28. Play begins the first week of Feb. Leagues will be as follows: Mixed Recreational - Friday night; Mixed Recreational - Saturday afternoon.

**Defensive driving** — Learn to drive safely and qualify for a 10% reduction in your auto insurance for the next three years. The class will be held from 8 a.m. to 5 p.m. Jan. 19 at a cost of \$20 per person.

**Beginning drawing** — This 8-week course, emphasizing the ability to study subject as an artist and apply that to drawing, begins Jan. 8 and runs from 7 to 9 p.m. Tuesdays. The cost is \$40 per person.

**Oil painting** — Blending colors and attaining depth in painting is the focal point of this introductory class, which meets beginning Jan. 7 from 7 to 9 p.m. for 8 weeks. The cost is \$48 per person.

**Woodcarving** — Learn how to use tools and techniques of this craft. Students are required to bring a curve gauge, X-acto knife and a 5 x 7 white pine board to class. This 8-week course begins Jan. 9 and meets from 6 to 8 p.m. at a cost of \$36 per person.

**Papier mache** — This creative class meets from 6 to 8 p.m. beginning Jan. 10. The 8-week course costs \$36 per person.

**Speedreading** — This course teaches techniques for greater reading speed and comprehension. The class will meet for 7 weeks from 6:30 to 8:30 p.m. beginning Jan. 22. The cost is \$60 per person.

**Dancercise** — This 6-week exercise class meets Tuesdays and Thursdays from 5:15 to 6:15 p.m. beginning Jan. 9. The cost is \$25 per person.

**Aerobics** — This course meets Tuesdays, Wednesdays and Thursdays from 4:15 to 5:15 for 8 weeks beginning Jan. 8. The cost is \$30 per person.

**Country western dance** — This popular course begins Jan. 7 with advanced and beginner's sessions. Advanced will meet from 7:15 to 8:45, while beginners meet from 8:45 to 10:15. The cost is \$20 per couple. Limited space.

**Small craft items** — Learn how to engage in small craftmaking projects such as framing and touch embroidery in this 6-week course which begins Jan. 8. The class meets from 7 to 9 p.m. and costs \$30 per person.

**Pest control** — The bugs will be coming inside this winter, but this class can teach you how to safely discourage them from settling in your home. How to spray, what chemicals to buy and how to safely and effectively apply them will be covered. The class meets from 7 to 10 p.m. Jan. 10 (one night) at a cost of \$7.50 per person.

**Ladies weight training** — This popular course begins Jan. 7 and runs for 4 weeks. Class meets Mondays and Wednesdays from 7 to 8 p.m. and costs \$20 per person.

**Bicycle repair** — A basic overview of bicycle maintenance is provided in this 2-week class which meets from 7:30 to 9 p.m. beginning Jan. 10. The cost is \$6 per person.

**Jitterbug** — Beginners learn how to partner dance to just about every type of dance music in this popular course, which covers swing, honky tonk and rock music. Intermediates meet from 8:30 to 10 p.m., while beginners meet from 7 to 8:30 p.m., both on Jan. 11. The cost is \$30 per person.

## Cookin' in the Cafeteria

Week of December 24—28, 1984

Week of Dec. 31, 1984—Jan. 4, 1985

**Monday:** French Onion Soup; BBQ Sliced Beef, Parmesan Steak, Spare Rib w/Kraut, Chili & Macaroni (Special); Ranch Style Beans, English Peas, Mustard Greens. Standard Daily Items: Roast Beef, Baked Ham, Fried Chicken, Fried Fish, Chopped Sirloin. Selection of Salads, Sandwiches and Pies.

**Tuesday:** Christmas - Holiday.  
**Wednesday:** Seafood Gumbo; Cheese Enchiladas, Roast Pork w/Dressing, BBQ Link (Special); Pinto Beans, Spanish Rice, Turnip Greens.

**Thursday:** Beef & Barley Soup; Roast Beef w/Dressing, Fried Perch, Lasagne w/Meat, Chopped Sirloin, Chicken Fried Steak (Special); Whipped Potatoes, Peas & Carrots, Buttered Squash.

**Friday:** Seafood Gumbo; Fried Shrimp, Baked Fish, Beef Stroganoff, Fried Chicken (Special); Okra & Tomatoes, Buttered Broccoli, Carrots in Cream Sauce.

AT BUILDING #3

On Wednesday we feature The Reuben: Corned Brisket, Swiss Cheese on a bed of Sauerkraut, Poupon Mustard on Rye and 1/4 Pickle. Delicious! Monday and Thursday check out our French Dip Sandwich