

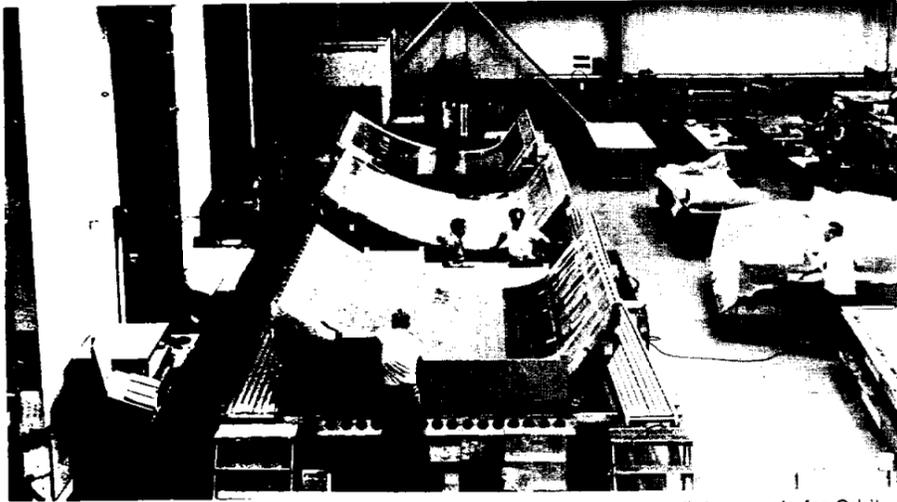
ROUNDUP

Lyndon B. Johnson
Space Center

NASA

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SHUTTLE RADIATORS TAKE SHAPE — Three of the eight production radiator panels for Orbiter 102 are shown during detailed assembly and fit-out in their bonding molds in Building 198. Later the large panels will be covered with a mirror-bright teflon coating and processed in an autoclave at another building in the Dallas Jefferson Street complex.

Lightweight radiator panels are constructed in Dallas

Vought employees in Dallas are turning out the large-scale, super-lightweight bonded panels under contract to Rockwell International's Space Division, prime contractor to NASA for the Orbiter and for integration of the Shuttle system. The radiators are scheduled for delivery late in 1978 and will be fitted to the Orbiter at the Cape Kennedy launch site.

A large area of Bldg. 198 has taken on the appearance of an assembly line as the company moves ahead with fabrication of production space radiator panels for Orbiter 102, the first of the Space

Shuttle vehicles scheduled to go into orbit.

When the Orbiter begins making its repeated trips into space in 1979, eight of the large radiator panels will be mounted over the entire inner surface of the vehicle's 20- by 60-foot payload bay doors.

And when the doors are opened to conduct experiments, the radiators will reject into the cold and vacuum of space up to 100,000 BTUs of excess heat per hour—from the vehicle's electrical power systems, avionics equipment, crew cabin, environmental control system and the Shuttle experiments themselves.

Constructed of bonded aluminum honeycomb, the panels will contain more than a mile of tubing and circulate up to 2,700 pounds of Freon 21 coolant per hour to carry excess heat from the vehicle's various subsystems.

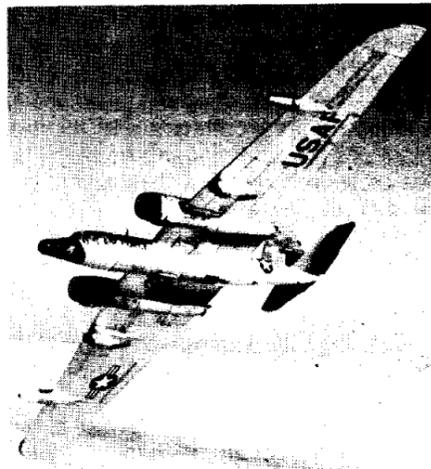
Their aluminum surfaces will be covered with a mirror-like, silver-coated teflon to reflect the intense sunlight of orbit and enhance the radiation of heat into space. The four forward panels also will be deployed away from the door interiors by actuators to increase the area of reflective surface from 1,200 to 1,800 square feet.

(Reprinted from Profile, Vought Corp., Dallas, Tex.)

JSC aircraft supports air pollutants study

The NASA 928, JSC high-altitude WB-57F, operated by the JSC Aircraft Operations Division for the Department of Energy, recently flew two flights for the National Center for Atmospheric Research (NCAR).

The flights were in support of a research program to study the transfer of pollutants from the troposphere to the stratosphere in the vicinity of Jet Streams, where it is most pronounced. Air samples were obtained at altitudes between 35,000 and 60,000 feet.



The NASA 928 aircraft.

Sensors onboard the aircraft used to measure the air mass transfer were the Stratospheric Aitken Nuclei Detector and the Ozone Monitor. The Stratospheric Nuclei Detector was used to determine the concentration and size of Aitken Nuclei, which are considered tracers for tropospheric air. The Ozone Monitor was used to determine the concentration of ozone, which is a tracer of stratospheric air.

The data from the Nuclei Detector, when superimposed upon that from the Ozone Monitor, will enable conclusions to be drawn concerning transfer of pollutants between the troposphere and stratosphere. The data collected are being analyzed by the NCAR who are reimbursing NASA/JSC for the cost of the flights. An NCAR T-39 aircraft also participated in both flights.

JSC employees are winners in elections

Several JSC employees were elected to local posts in the April 1 elections.

Richard U. Perry, Quality Assurance Division, was elected mayor of El Lago, and Joe Pirtle, Institutional Procurement Division, is Seabrook's new mayor.

In races for city council seats, John D. Blalock of the Aircraft Operations Division won in the Seabrook election; Charles J. Ritterhouse, Tracking and Communications Development Division, won a Shoreacres seat; Ed Stelly, Space Environment Test Division, was unopposed in League City; and Richard J. Gillen of the Engineering Office, Orbiter Project, was unopposed in El Lago.

In addition, Public Affairs Officer Hal Stall's son David was unopposed in El Lago, filling the council seat vacated by Perry.

The NASA 928 aircraft, using different sensors, is primarily used to determine the concentration of radioactive particulates and gases and other trace constituents at several altitudes of the upper atmosphere (40,000 to 65,000 feet) between the equator and 75 degrees north. These flights are flown by JSC in support of Project Airstream, a cost reimbursable project funded by the Department of Energy (DOE). The samples collected are analyzed by the DOE to improve the understanding and description of stratospheric transport processes and to develop improved global fallout predictive capabilities.

Pilots on these missions were Al Crews and Mike Swann, and the Systems Equipment Operator was Paul Nering of the JSC Aircraft Operations Division.

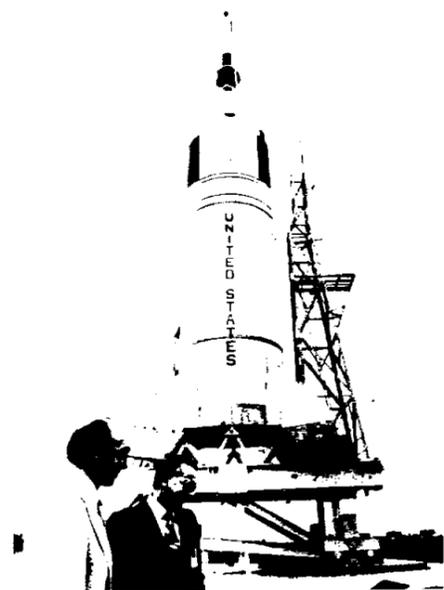
Savings suggestions earn more than money

Two more JSC employees, Hector M. Rodriguez and Harold T. Clayton of Downey, California, were recently presented Presidential Letters of Recognition by Aaron Cohen, Manager of the Space Shuttle Orbiter Project Office.

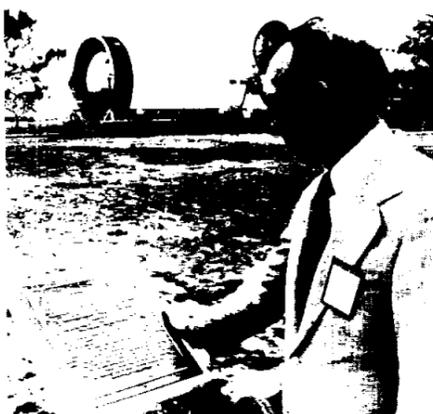
Under the Federal Government Incentive Awards Program, Presidential Letters are furnished to employees who submit suggestions that result in first-year savings of \$5,000 or more.

Rodriguez was recognized for two suggestions relating to the Shuttle Avionic Integration Laboratory (SAIL), which resulted in the modification and use of existing wire harnesses. Monetary savings from both suggestions totaled \$215,068.

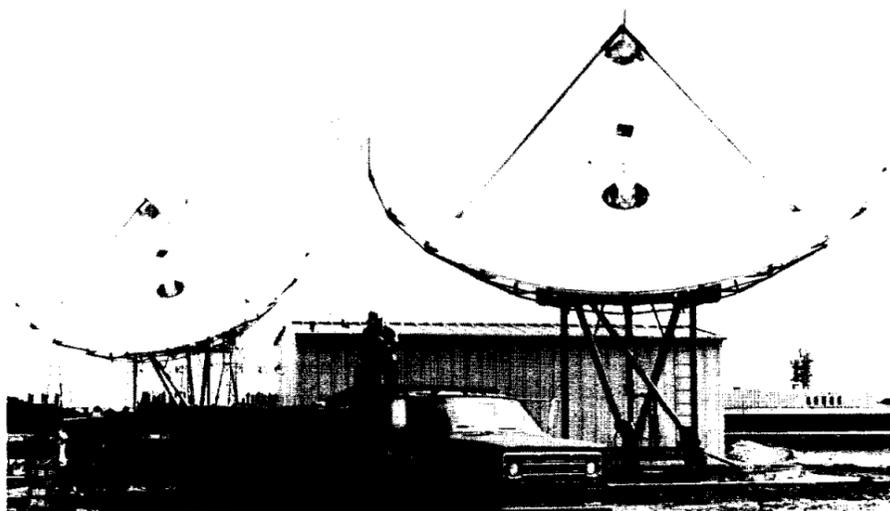
Improved operating procedures was the subject of Clayton's suggestion that resulted in a first-year savings of \$23,063. The procedures involved the change-out of Argon K-Bottle Carts used for welding and brazing tubing joints.



NEW ADDITION TO "ROCKET PARK" — John B. Hurt (left) and Center Director Christopher Kraft admire the unveiled plaque with the new addition to the future "Rocket Park," Little Joe II in background.



READING "LITTLE JOE II" PLAQUE — John B. Hurt rereads the history of Little Joe II.



SIGNS OF SHUTTLE — RCA, which provides global communications services, has erected two 11-meter (30-foot) dish antennas between Bldgs. 9 and 32 as part of a triangular data network. This heralds a new era in communications at JSC. Transmission via ground lines is being replaced with signals to geosynchronous satellites. Two communications satellites will operate in geosynchronous orbit to relay Orbiter data between the three ground stations that make up the triangular network: JSC, the Goddard Space Flight Center, and White Sands. The antennas will not track spacecraft. They were placed at their present JSC locations because it was determined in a Radio Frequency Interference Study that that area provided shielding from extraneous noise or signals from such sources as the Southwestern Bell telephone tower.

It's a long road from secretary to surgeon

It's a long road from JSC secretary to Board-certified surgeon.

That's what Pat Sauers is discovering. After graduating from South Houston High School in 1965, Pat Riggs (as she was known in those days) came to work at JSC in the Gemini Space Suit Office (Crew Systems Division).

For the next three years, she typed and filed during the day and took calculus and chemistry at San Jacinto Junior College at night.

She married JSC engineer Dale Sauers, which permitted her to attend the University of Houston full time. She quickly obtained degrees, with honors, in art and psychology.

After taking a variety of senior-level mathematics and physics courses, Pat decided to pursue her childhood dream of becoming a doctor.

This dream actually began at the age of about seven, when everyone in her household thought she was having an appendicitis attack.

"The adults were rushing around frantically, nearly hysterical," she remembers. "Then the 'kid' down the block, as the neighbors referred to him, was called upon since he was the closest thing to a doctor around, being fresh out of school with his degree. He reassured everyone that I did not have appendicitis, but it was his ability to instill an atmosphere of calm and to put everyone at ease that really impressed me at the time."

It took Pat only one year to satisfy the premed course requirements, and her 3.7 grade point average secured for her interviews at the Baylor College of Medicine and the University of Texas medical schools in Galveston, San Antonio, and Dallas. She will receive her M.D. from the University of Texas Medical Branch in Galveston May 27.

But the end is not in sight; for Pat doesn't have her goals set on being just any doctor, but a surgeon. A four-year residency program in surgery at the Harrisburg Polyclinic in Pennsylvania is next on Pat's agenda and begins July 3.

A woman performing surgery? Many people consider women a bit squeamish for that kind of work.

"Heavens, no," says Sauers. "In fact, she watched her first open heart surgery in premed school at Methodist Hospital here. That's when she decided to go into surgery."

As a fourth-year student, during what is called "the externship," Pat performed bone surgery and plastic surgery at Ohio State and the University of Washington in Seattle.

Husband Dale Sauers of the JSC Structures and Mechanics Division will leave behind 15 years of government service to accompany his wife to Harrisburg, which, he says, they chose over locations in 10 other states. Sauers received his 15-year pin last fall and joined JSC as a co-op student in 1962. He has already received several offers for teaching positions in Harrisburg-area colleges. He teaches night courses in Alvin, and he feels that the profession will be a challenge to him on a permanent basis.

Their former coworkers wish them luck in their newly chosen careers. Seems like they typify the lyrics of that popular song that goes "we've only just begun ..."

But, then, it's a funny world. With Pat's special training and the couple's ever-positive outlook, who knows; they may be back at JSC someday, with Pat as a mission specialist or an astronaut.



PAT SAUERS



LENGTH OF SERVICE AWARDS — Recognized for their 35 years of Government service are Sigurd A. Sjoberg, Parker L. Carroll, Charles C. Lutz, Richard J. House, and Mattison G. Brown. Thirty-year service awards went to Stephen D. Armstrong, Roy C. Aldridge, Modena C. Baker, James J. Shannon, Robert G. Chilton, Richard W. Bricker, and John D. Fitzgerald. Not pictured but receiving 25-year awards were Mary E. Corley, Terrence C. Heil, George L. Bosworth, Alice S. Wilson, William T. Mulcahey, Quinan W. Swing, Robert L. Phelps, Burney C. Leissner, and Herbert R. Greider. These awards are presented four times a year.



Astro cat under trailer

"ASTRO CAT"

JSC Sports Section

JSC Golf

Sixty-two JSC golfers sallied forth on April Fools' Day to do battle with the Bogey Man (non-golfers: a bogey is one over par). As usual, some won, some lost.

Winners from Group I, which played Wortham Park along Wayside Drive, were Lonnie Cundieff/net 69, Bob Mitchell/69, Milt Heflin/70, and Jim Poindexter/71. Six other players also had net 71's. Ties are broken by comparing scores by hole starting at number 15.

Group II, apparently playing across a very wide and deep Greens Bayou at Brock Park, had as winners; Tom

Matuszewski/70, Ed Shumilak/71, Bill Miller/73, and Don Jacobs/73.

Those who lost to the Bogey Man include the member who had a ball lost in the rough, ball lost on the adjoining fairway, ball lost in water, and 35 cents lost in the Coke machine. Another member, having already broken a 3-iron on a tree, proceeded to put seven straight balls into Greens Bayou. Some days nothing goes right.

The next adventures of the JSC Golf Association occur tomorrow at Glenbrook for Group II, and April 29 at Brock Park for Group I.



JSCGA WINNERS, GROUP I — Winners at Wortham shown left to right are: Jim Poindexter, fourth place; Milt Heflin, third place; Bob Mitchell, second place; and Lonnie Cundieff, first place.



JSCGA WINNERS, GROUP II — Winners at Brock Park are shown left to right: Bill Miller, third place; Ed Shumilak, second place; Tom Matuszewski, first place; and Don Jacobs, fourth place.

(Continued on page 4)

'Ya gotta have a home'

Last fall a young, skinny, scrawny, calico cat took up residence in an abandoned armadillo hole under the trailers which house the Astronaut Recruiting Office. In addition to feeding her, the secretaries at the trailers have been coaxing her out of her shelter every day, and what was once a scared, pitiful creature has become a cuddly, soft, purring, affectionate cat.

Although still afraid of strangers and cars, she has recently been crying for attention until someone opens the trailer window and talks to her, and then she runs out a few feet into the sunlight and rolls over and over, playing happily as long as someone is encouraging her.

April 7 the trailers were removed from their location and "Astro Cat" will need a new home, hopefully with someone who will be patient with her until she can get used to new surroundings.

Anyone interested in adopting her may call Cheryl Bouillion, X-3558, Joan Whitney or Ruth Hollen, X-5067. (Since she is still a little skittish at times, a home

with small children would not be recommended.)

CARRY YOUR WEIGHT!

REPORT THE RESULTS OF YOUR COST REDUCTION REPORT TO BH-4 COST REDUCTION OFFICE ON JSC FORM 1150!

ROUNDUP Lyndon B. Johnson Space Center NASA

Editor: Beverly Eakman
Photographer: A. "Pat" Patnesky

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What's cookin' in the JSC cafeteria

WEEK OF APRIL 17 - 21

MONDAY: Beef & Barley Soup; Beef Chop Suey; Veal Outlet w/Cream Gravy; Grilled Ham Steak; Weiners & Baked Beans (Special); Brussels Sprouts, Mixed Vegetables. Standard Daily Items: Roast Beef; Baked Ham; Fried Chicken; Fried Fish; Chopped Sirloin; Selection of Salads, Sandwiches, and Pies.

TUESDAY: Cream of Celery Soup; Turkey A La King; Frito Pie; Pork Chop w/Apple Sauce; Chinese Pepper Steak (Special); Spinach; Buttered Squash, Au Gratin Potatoes.

WEDNESDAY: Cream of Potato Soup; Catfish w/Hush Puppies; BBQ Plate; Braised Beef Ribs; Mexican Dinner (Special); Broccoli, Peas, Ranch Beans.

THURSDAY: Green Pea Soup; Corned Beef & Cabbage; Chicken & Dumplings; Tamales w/Chili; Hamburger Steak (Special); Green Beans, Cabbage, Navy Beans.

FRIDAY: Seafood Gumbo; Deviled Crabs; Liver w/Onions; Halibut w/Lemon Sauce; BBQ Smoked Link (Special); Corn, Italian Green Beans.

WEEK OF APRIL 24 - 28

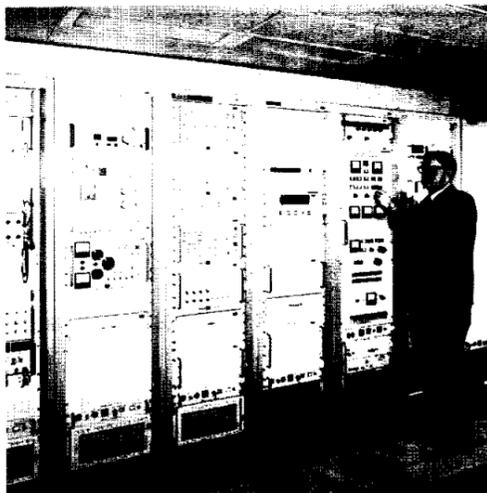
MONDAY: French Onion Soup; BBQ Beef; Parmesan Steak; Spare Ribs w/Kraut; Chili & Macaroni w/Salad (Special); Ranch Style Beans; English Peas; Mustard Greens. Standard Daily Items; Roast Beef; Fried Chicken; Fried Fish; Baked Ham; Chopped Sirloin; Selection of Salads, Sandwiches, and Pies.

TUESDAY: Split Pea Soup; Meatballs & Spaghetti; Liver w/Onions; Baked Ham; Corn Beef Hash (Special); Buttered Cabbage, Cream Style Corn, Italian Vegetables.

WEDNESDAY: Seafood Gumbo; Cheese Enchiladas; Roast Pork w/Dressing; Oven Crisp Flounder; BBQ Beef Plate; BBQ Link (Special); Pinto Beans, Spanish Rice, Turnip Greens.

THURSDAY: Beef & Barley Soup; Roast Beef w/Dressing; Baked Flounder; Lasagna w/Meat; Chicken Fried Steak (Special); Peas & Carrots, Buttered Squash.

FRIDAY: Seafood Gumbo; Fried Shrimp; Broiled Halibut; Beef Stroganoff w/Noodles; Fried Chicken (Special); Breaded Okra, Buttered Broccoli, Carrots in Cream Sauce.



AIR FORCE REMOTE TRACKING STATION DELIVERED — Air Force Satellite Control Facility Remote Tracking Station communications equipment, modified to accommodate interfaces with the Shuttle Orbiter, was delivered to the JSC Electronic Systems Test Laboratory (JSC/ESTL). Orbiter-ground communications systems compatibility and performance certification testing is to be performed in the late fall of this year by the Tracking and Communications Development Division with participation by the Air Force and Air Force contractor representatives.

EAA Attractions

ASTROWORLD TICKETS

Astroworld tickets are now available at the Bldg. 11 Exchange Store for \$6.75. This is a discount of \$1.75 off the regular \$8.50 price. These tickets will be available all season.

SIX FLAGS OVER TEXAS

Six Flags Over Texas tickets are now available at the Bldg. 11 Exchange Store for \$6.75. The regular price is \$8.50.

DISNEYLAND & DISNEYWORLD

Magic Kingdom cards for Disneyland and Disneyworld are also available free in the Exchange Store. The cards are good for ride ticket discounts at the parks and lodging discounts at some motel chains.

DEAN GOSS DINNER THEATER

Dean Goss Dinner Theater tickets are no longer sold at the Bldg. 11 Exchange Store. Get the tickets from Jim McBride, Bldg. 4, Rm. 130. Couples are \$16; singles \$8. Tickets are good any night except Saturday.

DANCE CLASSES

The JSC Dance Club will sponsor a 10-week series of classes every Wednesday evening beginning Apr. 26 at the Gilruth Recreation Center. All types of dancing (rock, swing, whip, fox trot, polka, waltz, Latins, etc.) will be taught by instructors Bob and Rae Calvert of the Calvert Dance Studios. Cost is \$40/couple for the 10-week session. For information, call Dance Club secretary Billie Fairfax, X-3050.

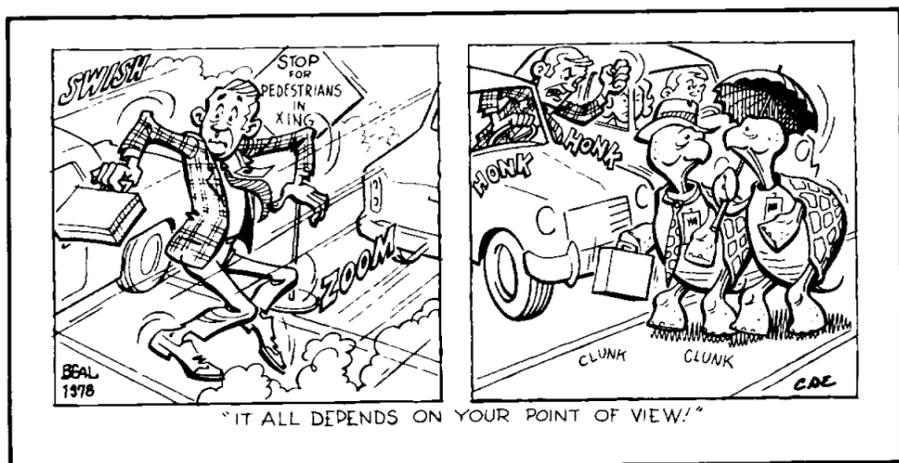
EAA PICNIC

The picnic committee is planning more adult activities for this year's event than it has in the past few years.

Among the fun events are an obstacle course (best time wins), King of the Mountain (knock your opponent off a log with a pillow), and an egg toss.

For the sports-minded, there will be tennis, softball, and horseshoe tournaments. If you prefer not to participate in organized events, there will be equipment available for volleyball, table tennis, and more.

Don't forget! Camp Manison, May 6! Tickets are now available from your EAA representative or at the Bldg. 11 Exchange Store. Adults: \$3; children (to 18 years): \$2.50.



JSC SPACE CARTOON

Roundup Swap Shop

PROPERTY & RENTALS

Sale: Beautiful home on secluded 1/2-acre lot; many trees, 3-1 1/2-2. \$69,500. 534-6381.

Lease: CLC, new Baywind Condo. Fireplace, refrig, drapes, private patio, 2 bdms, pool, sauna, clubhouse. 334-2461.

Rent: Lakeside vacation retreat at Cape Royale on Lake Livingston. Tennis, fishing, boat launch, golf. 488-3746.

Rent: Lake Livingston, Cape Royale, compl furn home, 3-2-1. Fishing, hunting, tennis, golf, etc. Reserve early. Wk/mo/yr rates. 488-4487.

Rent: Galveston West End. 2 BR by-the-sea condo apt. full furn. \$180/wk off-season; \$260/wk in-season. Clements, 474-2622.

Rent: New Galveston Island Jamaica Beach cottage. \$175/wk or \$30/day for weekends. 334-1640 after 6 p.m.

Lease: Middlebrook II, 4-2-2 Drapes, landscaped, fireplace, wet bar, patio. Avail June 5. \$475/mo. 488-4487.

Rent: Waterfront cabin at Lake Travis. Private covered boat dock; good view, water access, A/C, comfortable. 474-5702.

Sale: Have an airplane? Buy a HOUSE in Friendswood w/ an airstrip adjacent to the back yard. An airman's dream on 1/2 acre. 333-2509

Rent: Three-bdrm, 2-bath house w/ lg family rm, 2-car garage, lg yard. All elec w/ central air & heat. Very clean, new, in nice neighborhood near schools; 15 min from JSC. 488-6306.

Sale: Spanish 3-2-2. Custom drapes, 8 mos old, xint first home or investment. Assumption or new loan; low equity. NO AGENTS; for sale by owner. 332-1055 after 6.

Lease: CLC, new Baywind 2-bdrm condo. Refrig/icemaker, dishwasher, 2-bath, 2-assign parking, W&D Connections, flm private patio w/ view, pools, saunas, exercise & game rooms, clubhouse. \$370/mo. Becker, 944-5118 or X-5276.

Lease: New 2-bdrm ready-to-occupy condo in CLC, Baywind. Refrig, drapes, pool, clubhouse, etc. No pets. \$325/mo. 334-3265.

Sale: Heavily wooded 4-acre residential lot on cul-de-sac in Oak Manor Estates subdivision, Alvin, Tex. \$8,000. Sauers, X-3251 or 1-744-9692.

BOATS & PLANES

Falcon Wildcat boat. Approx. 16', 60 HP, Johnson outboard, tanks, depth-finder, & more. 1967 model in 1975 cond. \$1,500. 481-3900.

Sportscraft Trihull, 18' w/ trailer & Merc 125. Three props, battery, gas tank, new tach & steer assembly. Must sell. 946-9240 after 6.

CARS & TRUCKS

73 Lux LeMans. Orig. owner, xint cond, loaded, low mi. \$1,950. Sturtevant, 333-3905.

75 Honda CVCC. A/C, 2-dr, 5-sp, 29K mi. \$2,600. 332-1251 or 554-6006 after 6.

75 Datsun 710. A/C, 4-dr sedan, AM radio, good cond. \$2,195 or trade. Dunaway, X-4161 or 332-1170.

75 Mercury Montago. Xint cond, 2-dr, AM-FM radio, pwr steer, vinyl top. \$2,250. Dickey, X-6226 or 938-4465 after 5.

73 Olds Delta 88. Auto, A/C, pwr, AM-FM radio, 350 V-8, immac interior, good tires & engine. \$1,200. Sauers, X-3251 or 1-744-0692 evenings.

68 Camero. Auto, 6-cyl, pwr steer; new tires, alternator & battery; runs well. \$500. Dusty, X-2673 or 472-6002.

68 Plymouth. Needs valve job. \$125. 482-7968.

69 Ford 1/2-ton long-bed Pickup. 360 engine. \$1,100. 481-3900.

74 Mercury Sta Wgn. Luggage rack, 9-passenger, new steel belted radials, clean. \$2,295. 482-1582.

62 VW. New license, radio, rebuilt engine, runs well. \$200. Hanners, 334-1639.

69 Pontiac Exec Sta Wgn. Good work car. \$295. Erickson, X-6421 or 649-0396 after 5.

66 Buick Electra. Very good cond, 4-dr, loaded, tires & brakes less than 10K mi, nearly \$300 of recent repair work; xint f/ school or work. \$650 firm. Pittman, X-5026 or 488-1243.

68 Chevy Pickup. A/C, 3-sp, some rust, camper top, compression 120-140. \$795. Keyser, X-5841 or 946-4059 after 5.

72 Buick Electra 225. Auto, 2-dr HT, A/C, tilt wheel, pwr, cruise, xint cond. \$1,425. Edwards, X-2141.

67 Pontiac Catalina. Pwr Steer & brakes, A/C, 4-dr, orig owner, very clean. \$500. Bobola after 5. 474-5095.

70 Ford Country sedan. Fully equipped, xint cond inside & out, orig owner. \$1,050. Mansfield, X-6101 or 944-5473.

73 Olds Delta 88 Royale. Pwr, stereo, 2-dr HT, xint cond. \$1,825. 488-7698 after 6.

CYCLES

Honda CT70. Xint cond, \$195. Ferguson, 488-2329.

75 Suzuki GT 250. New tune-up/drive chain/sprockets, well maintained. Great buy at \$550. Wes, 333-5511 or 554-3980.

65 Honda CB 160. Cycle lovingly maintained by owner's family since new. New rear tire & chain, mounted luggage rack, heavy duty front wheel stabilizer bar f/ off-road riding. \$250. Ed, X-4819 or 332-3709.

HOUSEHOLD ARTICLES

Air cond. Norge, 4000 BTU; perfect f/ boat, camper, shop, etc. \$90. Lattier, 488-1366.

Magnavox 21" B&W TV. \$25. Also, Sears 20" self-propelled mower, \$25. Both in working cond & about 9 yrs old. 482-4069.

Three-piece bwn corner couch set w/ table. Very good cond. \$100. 488-5642 after 6.

A/C condensing unit, 5-ton, good complete. \$150. Also, 3-ton A/C compressor, \$45. 946-7036 after 5.

Wrought iron glass top table & 4 chairs. \$125. 333-3425 after 6.

Deluxe models Frigidaire washer & elec dryer, 220v, xint cond. \$135 f/ both. Cohen, X-3445 or 488-3171.

Antique light gold oak washstand & 3-cushion Early Am. sofa, Xint buys. 488-4487.

MUSICAL INSTRUMENTS

Cello. Full size, fine quality, \$2,000. Also full-size practical cello, \$200. Bates, X-4601 or 944-4687 after 5:30.

Martin Rosewood classical guitar w/ hardshell case. Xint cond. \$400. Gorman, X-4576.

WANTED

Firefighters needed! Men and women adult residents of CLC needed to join CLC Volunteer Fire Dept. Rewarding community service. You will be trained and equipped. Call 488-0023 any time.

Need new members f/ Bacliff Bass Club. Singles-couples welcome. Meetings, tournaments, prizes. Parker, X-4241 or Moblely, X-4428.

Need empty Safeway Cragmont bottles. Top prices offered. Zupp, X-4391.

MISCELLANEOUS

Gas tank f/ 72 Chevy Suburban, complete w/ straps & sender unit. \$20. Lattier, 488-1366.

Above-ground aluminum-frame swimming pool, 15 x 30, xint cond. Ferguson, 488-2329.

Tires: H78-15 LT, 8-ply, two ea, almost new. Mansfield, X-6101 or 944-5473.

Amateur radio, 75 meter & 40 meter resonators f/ mobile antenna. Sigafosse, 554-6242.

Bell & Howell Schools correspondence course "Home Entertainment Electronics Systems" texts & lab experiments w/ equip: FET VM, oscilloscope, breadboard, & components (100 lessons, 16 labs). \$225. Also Capitol Radio Engineering Institute correspondence course "Electronic Engineering Technology" & "Principles of Leadership" (70 lessons). \$55. And, Master Conservation correspondence course from the Ntl School of Conservation of the Technical Home Study Schools. \$70. Samouce, X-6100.

Gemtop pickup camper cover f/ 8' bed. Not aluminum but steel! \$150. 331-6690.

Roger St'd model 22 cal auto pistol w/ 4" bbl, spare clip, holster, very good cond. \$50. 488-3966.

Auxiliary gas tank, 50-gal, across-the-bed type. Also nice carpeted bench seat to cover tank. \$175. 331-6690.

Lawnmower, 22" self-propelled w/ catcher, \$40. Also, custom cartop luggage carrier, 4' x 4' enclosed heavy-duty vinyl, \$25. And, AM to FM car radio converter, Penney's, \$12. 474-4885.

Phonemate answering system f/ telephone, \$30. Becker, X-5276 or 944-5118.

Mobile home. 1977 Broadmoor; 2-bdrm, 1 bath, cent A & H, 14 x 60. Low equity. Assume monthly notes \$157.42 if desired. Peterson, X-3933 or X-2161 or 986-5009 after 5:30.

Two 12" speakers. Fine sound, 150 - 14500 Hz, mounted in small wood cabinets but suitable f/ inclusion in larger speaker systems. \$20. Stencil, X-6467 or 334-4707.

Jr. left-handed golf clubs (set). Putter, bag, 1-wood, 3-irons. New. \$35. 488-6940 after 5.

LOST & FOUND

Blk zippered windbreaker, lady's small. Found north parking lot, Bldg. 30 wk of Mar. 6. Elder, X-3743.

Sports continued . . .

SKREET LEAGUE

Skeet is becoming an increasingly popular sport around the nation, and JSC has its enthusiasts, too.

Many people apparently do not know what the sport involves, and when they learn it is a shooting sport, some figure it would be of interest only to hunters.

Not at all.

Skeet is trapshooting in which clay targets are thrown in such a way as to simulate the angles of birds in flight. In fact, the targets are referred to as birds.

Actually, it is a bit more automated than that.

There is a control box with three buttons. Push one button, and a target whizzes upward from the 14-foot "high house" (see diagram) at about 66 miles per hour; push another button, and the "bird" is released from the 4-foot low house at the same rate of speed. The third button releases a target from both houses into the air simultaneously.

The secret of success in skeet is timing. The JSC league uses 12, 28, 20, or 410 gauge shotguns in any match. At the state level, competition is set according to gauge.

There is a total of 24 possible shots, and 25 pieces of ammunition to cover them. The individual, therefore, gets one "free" shot, so to speak.

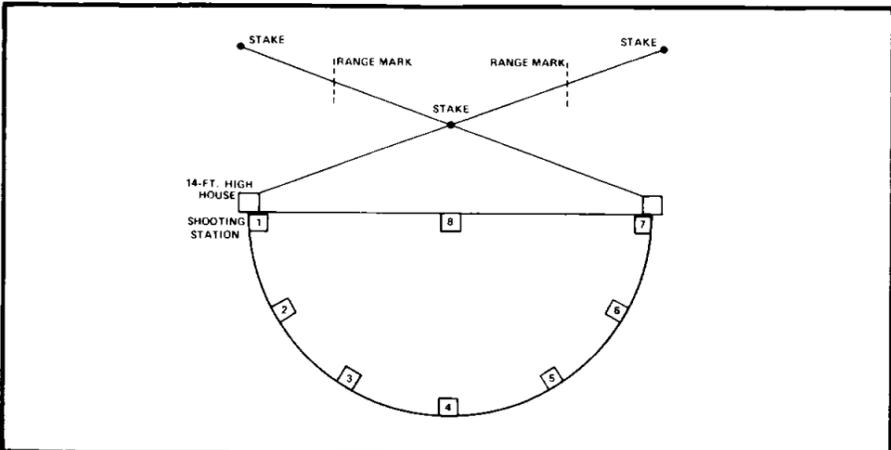
In the fall Skeet League at JSC, Hank Flagg had the high overall score. Now it is time for the Spring League, which will consist of five-person teams meeting

Thursday evenings beginning April 27. The League will last 10 weeks and will be handicapped to allow all levels of shooting capability to compete on an equal basis.

The Skeet League is open to all JSC and contractor personnel. To sign up, call the Clear Creek Gun Range in League City at 337-1722 after 2 p.m. For additional information, contact Bill Chandler, X-4072.



HANK FLAGG — He had the high overall score (Skeet League).



SKREET COURSE — The eight shooting stations together comprise a "round." From each station, the competitor shoots a target from the high house, the low house, and a double (simultaneously released targets from both houses), except from stations 3, 4, and 5 where only single shots are made unless the competition is so good that a winner cannot be declared by the usual method. The stakes indicate a region in which you must hit the target from either the high or low house, which makes trajectory very important.

TENNIS CLUB

The first JSC Tennis Club Tournament for 1978 was held at the Friendswood Racquet Club Mar. 10, 11, and 12. Events were mixed doubles, men's doubles, and women's doubles—all together 107 doubles teams.

Participants included members of the JSC Tennis Club and members of the Friendswood Racquet Club. Tournament directors were Jim Walker and Penny Burke.

Winners were:

- Men's A - Ross Abotten & David Gloger
- Men's B - Jess Stewart & Jim Barnett
- Men's C - Mike Kincaid & Jerry Oliver

- Women's A - Ruth Damoff & Anne Williams
- Women's B - LaMoine Humphries & Betty Neely
- Mixed A - Ron Via & Ann Williams
- Mixed B - B. J. & Wanda Durham
- Mixed C - John Miller & Lisa Serr

The JSC Tennis Club plans to have nine more tournaments this year. These are listed in the table below. Frank Newman is president of the club (X-7204), and Carolyn Thompson is Vice-President and Membership Chairman (X-5987).

TENNIS TOURNAMENTS

Date	Tourney	Event
Apr. 1-2	JSC Ladder Tourney	Singles/ladder members
May 6-7	Spring Singles	Women's, men's singles
June 10-11	Open-age, Singles w/ BARC*	Women's, men's singles
July 8-9, 15-16	Lunar Rendezvous	Women's, men's singles/doubles, mixed doubles
Aug. 11-12-13	JSC-FRC* Summer Open	Mixed doubles w/ consolation
Aug. 26	American Ntl. Insurance	Singles, doubles
Sept. 29-30	Fall Doubles Championships	Women's, men's mixed doubles
Oct. 27-28-29	Fall Singles Championships	Women's, men's singles
Dec. 1-2-3	Clear Lake Area Championships	All types (team format)

*BARC — Bay Area Run Club; FRC — Friendswood Racquet Club

FWP plans week-long program

JSC will commemorate the 10th Anniversary of the Federal Women's Program (FWP) with a week-long program of planned special activities designed to explore and stimulate increased individual awareness.

Official observance of the occasion commences in the Bldg. 2 auditorium at 9 a.m., Monday, Apr. 17, with brief introductory remarks by Center Director Christopher C. Kraft, Jr.

Other speakers for the 3-hour "opening day" session include Channel 2 KPRC-TV's Sara Lowrey with some personal insights on "Communication: The

Challenge for Women"; "Looking Back—And Beyond" with astronaut candidate Judy Resnik; a "Report from Washington" by Congressman Bob Gammage; and some "Reflections and Projections" from NASA FWP Coordinator Oeola S. Hall.

Completing the week's activities are a number of workshops covering a variety of thought-provoking subjects of interest to all of us at JSC:

Don't forget to make your reservations using the form provided on the back of our flyer. For further information call Virginia Hughes, X-4831.

SCHEDULE OF EVENTS

Times	Dates & Events
Tuesday - April 18	
*10:00 - 11:30 a.m.	"Personnel Operations" - Harvey Hartman
* 1:00 - 2:00 p.m.	"Panel Discussion—Ask Management" - Richard Johnston, Jack Lister, Philip Whitbeck, Ann Sullivan (moderator)
* 2:00 - 3:30 p.m.	"Financial Planning—Give Credit Where Credit Is Due" - J. E. McNeil
Wednesday - April 19	
* 9:00 - 10:30 a.m.	"Women in Crisis" - Dr. Nikki Van Hightower
*10:45 - Noon	"Divorce: Legal/Emotional Aspects" - Judge Henry Schuble, Judge Ruby Sondock, Marcia Elefant
* 1:00 - 2:30 p.m.	FILM: "What You Are is Where You Were When"
* 2:30 - 4:00 p.m.	"Where Do You Go From Here" - Dr. Walter Natemeyer
Thursday - April 20	
** 9:00 - 10:30 a.m.	"Stress: Mental/ Physical" - Dr. Dale Hill
**10:45 - Noon	"Legislative Awareness" - Ellen Mendoza
*** 2:00 - 4:00 p.m.	"Men in Transition—The Male Mystique" - Craig Roberts
Friday - April 21	
* 9:00 - 10:30 a.m.	"Are You Building Walls or Bridges?" - Mary Ann Gonyea and Sue Permenter
*Gilruth Recreation Center **Building-30 Auditorium ***Building-2 Auditorium	

Special Announcements

ANNUAL SECRETARIES WEEK

Marking its 27th annual observance, 1978 Secretaries Week will be noted Apr. 23-29 sponsored by the National Secretaries Association (NSA), the world's leading secretarial association. The intervening Wednesday, Apr. 26, is set aside as Secretaries Day.

The NASA Clear Lake Chapter has planned a Secretaries Day Luncheon on Wed., Apr. 26 at 11:30 a.m. to be held at the Gilruth Recreation Center. Cost is \$5 per person. Reservations/cancellations may be called in to Rachel Windham, X-3831, or Geraldine Taylor, X-4303, by Friday, Apr. 21.

SAVINGS BOND CAMPAIGN

The 1978 U.S. Savings Bond Campaign for JSC will run from April 10 through May 5. Roy Aldridge of the Management Analysis Office has been designated by Christopher Kraft as the Center's Campaign Chairman, and Charles Beckman of the Institutional Resources Division has been designated as Campaign Coordinator.

For information relating to the many advantages of a Savings Bond payroll savings plan, interested Center employees should contact Roy Aldridge, X-5419, or Charles Beckman, X-4626.

AEROSPACE MECHANISMS SYMPOSIUM

If you think you might be in California April 27 and 28, you might be interested in the Aerospace Mechanisms Symposium where aerospace and aircraft design engineers throughout Europe and the United States will assemble at the NASA-Ames Research Center.

FBA MEMBERSHIP DRIVE

Membership in the Houston Area Federal Business Association (FBA) midway through the annual membership drive is approaching 3,000, of which 605 are JSC employees.

"Membership is open to any active or retired federal officer or employee within a 105 mile radius of Houston," said Roy Aldridge, JSC's representative on the Board of Directors of the FBA.

The Association sponsors position vacancy sharing programs, Honor of the Federal Employee of the Year Awards, a Christmas program helping needy Federal employee families, and a local national discount buying service.

Membership is open to any government employee working at JSC at no charge through April 30. After that date membership fees are \$1.00 per year.

For further information contact Roy C. Aldridge, X-5419, or fill out the form below and forward to BE5.

APPLICATION FOR FBA MEMBERSHIP

_____	_____
(Name)	(Employee No.)
_____	_____
(Office Code)	(Office Telephone No.)