

Space News Roundup

Vol. 20 No. 15

July 31, 1981

National Aeronautics and Space Administration

Shuttle Update

The Space Shuttle Orbiter Columbia is rapidly approaching the time for its scheduled rollover to the VAB at Kennedy Space Center. According to the present schedule, Columbia will move on Tuesday from the Orbiter Processing Facility where it has been undergoing refurbishment since its maiden flight over to the Vehicle Assembly Building where it will be hoisted into position for mating with the External Tank and Solid Rocket Boosters. The ET and SRBs have been connected together on top of the mobile launch platform since early July.

Over 1300 tiles have been bonded to the Orbiter and about 75 will remain to be bonded when the vehicle is in place in the VAB. The Orbiter Integrated Test which had been set to begin the week of July 20 was delayed until July 27, primarily because of wiring problems in the system which would jettison the Remote Manipulator Arm in the event of a serious malfunction in space.

Checkout of the OSTA-1 payload, already mounted in the Columbia's payload bay, have been continuing
see Update, pg. 4

Faget will retire to pursue a career in energy conservation

Maxime A. Faget, father of Mercury, Apollo and Shuttle spacecraft design, is leaving the government shortly after the STS-2 mission to be a consultant and to carry out private investigations of several energy conservation schemes.

Faget, Director of Engineering and Development at Johnson Space Center since 1961, said he plans to remain closely associated with the space program as a consultant.

He will be succeeded by Robert O. Piland, Director of Space and Life Sciences, when Faget leaves in the fall.

Faget in 1946 joined the Langley Research Center, Hampton, Va., as a research scientist into pilotless aircraft. He later was named head of performance aerodynamics, a post he held until 1958.

His creative drive and engineering perception resulted in his selection to the original group of 35 assigned as a nucleus of Johnson Space Center (then the Space Task Group), serving three years as Chief of the Flight Systems Division.

It was just prior to this period that he conceived and proposed the development of the one-man spacecraft used in Project Mercury.

The Gemini and Apollo spacecraft are derivations of the original basic concept.

A NASA member of the Polaris Missile steering Task Group, he is credited with "greatly influencing the design of that Navy missile."

In his current position as Director of Engineering and Development, he is responsible for design, develop-

ment and proof of performance for all spacecraft systems. His area includes crew systems, experiment systems, telemetry and communications, guidance and control, avionics systems engineering, propulsion and power, future programs, structures and mechanics, spacecraft design and engineering analysis.

His achievements, honors, awards, patents, and technical papers reflect a "Who's Who" of aerospace, starting with his Bachelor of Science degree in Mechanical Engineering from Louisiana State University.

He has also authored and co-authored numerous technical papers including documents of aerodynamics, rocketry, high-speed bomb ejection, reentry theory, heat transfer, and aircraft performance. He is also co-author of a textbook, "Engineering Design and Operation of Spacecraft," and is author of a book entitled, "Manned Space Flight."

He holds patents on a "Mach Number Indicator" and "Space Shuttle Vehicle and System," and joint patents on the "Aerial Capsule Emergency Separation Device" (escape tower), the "Survival Couch," and the "Mercury Capsule."



Beggs says NASA "On threshold of new era"

The future of NASA and JSC's role in its development was the topic of newly appointed NASA administrator James M. Beggs' July 20th speech to employees.

He opened his speech with discussion of NASA's relationship with the public and government. "Even though in recent years there has been strain with the agency's relationship with congress, there were strains in the past also," said Beggs.

He illustrated NASA's position by referring to it as a big balance sheet.

First he talked about the program's assets.

"If you look at the polls it shows that the American public is still interested, still believes that the program is vital to the nation," he said. Beggs also pointed out that even in this time of budget cuts, NASA had fared well compared to other agencies. "Many were cut to ribbons; there is support in this administration for continuation of the program."

Then he moved into its liabilities, "Some of the public and congress

question a bit out credibility... there is more questioning going on in this difficult economic period."

Beggs then talked about the agencies stance today, "The problem now is that we bring shuttle through, and make it truly operational so that it becomes a space transportation system that our country and indeed the whole world can depend on and use continuously for their needs to put payloads into space."

"Beyond that we need to set a new goal, the next step is a permanently manned orbital space station; we will over the next several months be setting up for that," he said adding, "It does take time to sell new programs."

"We are on the threshold of a great

new era, we are there due to great men and women. The achievements are a reflection of the great management here," he said.

Beggs closed his talk with a quotation from Shakespeare's Henry VIII, "The prince goes to the king and says, 'I can call forth spirits from the vasty deep,' and the king thinks a moment and says 'Why so can I, or so can any man; but will they come when you do call for them?'" The audience laughed and Beggs continued, "spirits are new programs; we are going to call for those new programs."

"Keep up the magnificent things that you've done in the past and I assure you that we'll have success," said Beggs.

Goddard and Wallops consolidate

In late April the National Aeronautics and Space Administration Headquarters in Washington, D.C., announced two consolidations of field installations scheduled to take effect in early October.

Dryden Flight Research Center and Ames Research Center, both located in California, will merge, with Dryden becoming an operational element and component installation of Ames. Goddard Space Flight Center, in Greenbelt, Maryland, and Wallops Flight Center (WFC) on the Eastern Shore of Virginia, will also merge, with Wallops becoming an operational element and component of Goddard. Dryden and Wallops will retain their identity, but be under the overall management and direction of Ames and Goddard respectively.

The consolidations are aimed at focusing the resources of the installations on what they can do best.

The close relationship between Wallops' and Goddard's efforts in suborbital programs were instrumental in the decision. To use the unique capabilities at Wallops, sounding rocket development and operations for both Centers will be carried out primarily at Wallops.

Organizationally, Wallops will become a Goddard Directorate with programmatic responsibility for Suborbital Projects and Operations (SP&O). The Director for SP&O will report to the Goddard Center Director. The Directorate will consist of a Directorate Office, an Engineering Division, an Operations Division, and a Technical Resources Management staff.

Immediately after the consolidation announcement, a task team and supporting working groups were established to develop an implementation plan.



NASA administrator James M. Beggs



The rats in "Oh Rats"

The Children's Theatre on the Bay will present 'Oh Rats,' a play based on a plot similar to the Pied Piper, on Saturday August 1 and Sunday August 2nd at 2:00 p.m. "Oh Rats" is an original play written and directed by Apprentice Theatre's Claire Harmon. The children in the cast are from three to 14 years old and from the Bay Area. Tickets are one dollar and may be purchased from the Exchange Store in Building 11.

SHARP students get firsthand experience in aerospace

NASA's Summer High School Apprenticeship Research Program (SHARP) is designed to encourage minorities to consider careers in mathematics, engineering, and the physical sciences. Special lectures, individual and group counseling, and other work related activities are also included in the program. The program's aim is to recruit engineers and scientists for future programs.

This year, JSC has 16 students from area high schools involved in the program. Two hundred students are employed in all the NASA centers combined. At JSC, the SHARP program is supervised by the Aerospace Education Office and the Equal Opportunity programs office. The JSC coordinator is James Poindexter and the faculty coordinator is Abron Henderson.

Students are selected on overall grade point averages and interest in science and engineering. All students work full-time for 10 weeks ending August 21st. The program is also offered part-time during the academic year.

On August 7, each student will present an oral report of their research paper covering their scientific project to peers, supervisors, and parents.

Outstanding secretaries for April, May, and June

Handling a heavy workload under a tight schedule in a professional manner is Donna A. Tarpey's character. While secretary to the Chief of the Flight Simulation Division Tarpey always maintained a special high quality in her work. When she was selected to become the Division Secretary in July 1980 her abilities became ever more apparent.

Ms. Tarpey's transition was so smooth and her new increased workload was handled so well the day to day management of the division improved. For these reasons, Donna A. Tarpey is the June 1981 Secretary of the Month.

"Ms. Tarpey's enthusiasm and dedication is an inspiration to the rest of the Division." Her revamping and correcting of the old office routine had a very positive effect on the Division. She accomplished this task with very little supervision. She has proven to be dependable and dedicated in performing consistently at an excellent level — high quality is her key.



Donna A. Tarpey
June



Graciela C. Ferris
May

Graciela C. Ferris is a secretary in the Facilities Design Division office. What better recommendation could an outstanding secretary have than to be so well known for competence and thoroughness that other offices want you to fill in? Ferris has served as secretary to the Deputy Director of Center Operations for three weeks at a time. During that time, she was able to assist the directorate secretary by reducing a filing backlog on management issuances and by providing indexing for rapid retrieval.

Besides having professional skills, Ferris's dedication and intelligence contribute to her receiving the Outstanding Secretary of the Month of May, 1981.

"She is as dependable as the Sun." During a reorganization in the Facilities Design Division, she kept daily work uninterrupted and trained two new secretaries. Her filing systems are very workable, and no time is lost in locating correspondence.

Shirley G. Huss maintains a cheerful and helpful attitude at all times in her relationships in the office and maintains an excellent rapport with all her associates. She also displays a great initiative in seeking additional functions she can perform to add to efficiency of the office.

Ms. Huss is the Outstanding Secretary for April 1981. While she performs as chief of staff at the office she continually seeks to help others in their work.

Huss also has an ability to recognize the relative importance of many diverse documents from program documentation and technical correspondence to public mail requesting for autographs, pictures, and public appearances.

"She has reaped nothing but praise from all who contact her." She is an outstanding and highly respected representative of NASA and a great credit to this Center and the agency for which she works.



Shirley G. Huss
April

Bulletin Board

Summer Employees Banquet
Reservations are being taken until noon August 12, for the Summer Employees Banquet. The banquet will be held at 11:30 a.m. August 14 at the Gilruth Recreation Center. Summer employees, including Summer Aids, OE's, Junior Co-ops, Handicap Program personnel, supervisors and Parents are invited.

The cost of the luncheon is \$6.00. The menu consists of tossed green salad, beef mandarin with rice, or baked chicken, with broccoli. Black forest layer cake is the dessert, and coffee and tea will be served.

Reservations may be made with one of the following,

beginning July 27: Bldg. 1, Room 360A, Sherone Brantley, x-5441; Bldg. 1, Room 257, Ramona Mendoza, x-2821; Bldg. 4, Room 257, Lisa Andres, x-4637; Bldg. 4, Room 152, Sondra Williams, x-4555; Bldg. 12, Room 279, Lisa Garza, x-2531; Bldg. 45, Room 630, Kimberli Williams, x-3655; Bldg. 45, JSC Technical Library, Annie Bates, x-4048; Bldg. 16, Room 248, Sylvia Henderson, x-2401; and Bldg. 350, Room 102, Letha Williams.

For additional information about the banquet, contact Alotta Taylor, x-5266.

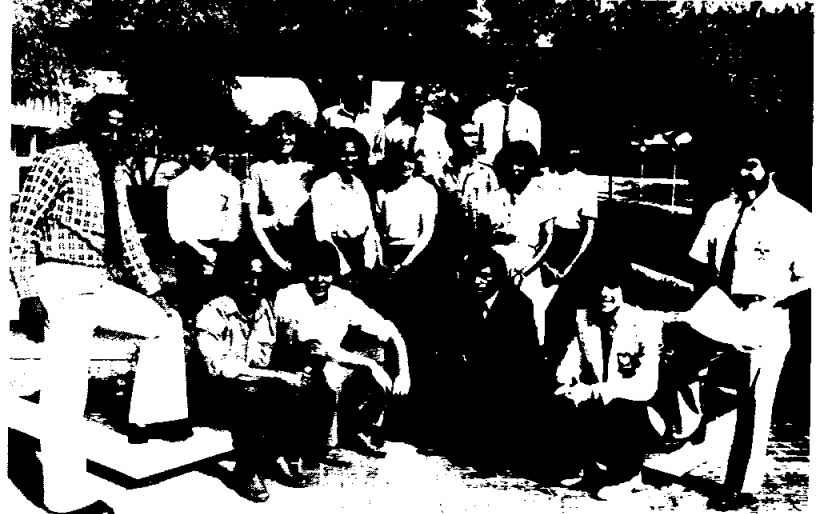
Aero Club

The Aero Club has taken delivery on an Air Conditioned

4 Place, Piper Archer II. This aircraft is fully equipped for instrument flight with auto pilot. Call x5285 for additional information.

Alley Theatre season tickets

Season tickets for next year's six performances are now available for \$36. This discount rate is offered to Nasa employees and contractors by the Alley Theatre Corporate subscription program. Brochure order forms explaining the program are available at Bldg. 11 and from your EAA representative. Subscription books will be home-mailed in October. The deadline for placing orders is September 3. Send check or charge plan to Dorris Wood, SN 1 (x4464).



SHARP folks

The Summer High School Apprenticeship Research Program offers student exposure to engineering, mathematics, and the physical sciences at NASA. Pictured left to right - Row 1: Abron Henderson, Faculty Coordinator, Gregory Phillips, Jorge Aranda, Russell Collins, Xavier Rodriguez, James Poindexter, Educational Programs Officer. Row 2: Andy Bourgeois, Kathy Everette, Lita Spencer, Mona Cozens, Joseph Herbert, Brenda Williams, Annie Carter. Row 3: Troy Stovall, Artie Mitchell, and Wiley Johnson. Russell Cormier and Julia Hunter are not shown on the photo.

Thanks-

Please accept our thanks and appreciation for the retirement recognition you gave us on June 4th. The lovely momentos and kind words will be enjoyed through the years ahead, but best of all will be a great sense of pride of having served so many years with NASA along with you great people. Best wishes for the future.

Bob and Dot Thompson

Cookin' in the cafeteria

Week of August 3-7, 1981

MONDAY: Beef & Barley Soup; Beef Chop Suey; Breaded Veal Cutlet w/Cream Gravy; Grilled Ham Steak; Weiners w/Baked Beans (Special); Whipped Potatoes, Brussels Sprouts, Buttered Rice. Standard Daily Items: Roast Beef; Baked Ham; Fried Chicken; Fried Fish; Chopped Sirloin. Selection of Salads, Sandwiches and Pies.
TUESDAY: Celery Soup; Fried Shrimp; Turkey a la King; Pork Chop w/Applesauce; Chinese Pepper Steak (Special); Au Gratin Potatoes, Breaded Squash, Buttered Spinach.
WEDNESDAY: Seafood Gumbo; Fried Catfish w/ Hush Puppies; Braised Beef Ribs; Mexican Dinner (Special); Spanish Rice, Ranch Beans, Buttered Peas.
THURSDAY: Green Split Pea Soup; Corned Beef w/Cabbage & New Potatoes; Chicken & Dumplings, Tamales w/Chili; Hamburger Steak w/Onion Gravy (Special); Navy Beans, Buttered Cabbage, Green Beans.

FRIDAY: Seafood Gumbo; Deviled Crabs; Broiled Hailbut; Liver & Onions; BBQ Link (Special); Buttered Corn, Green Beans, New Potatoes.

Week of August 10-14, 1981

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: Split Pea Soup; Meatballs & Spaghetti; Liver & Onions; Baked Ham w/ Sauce; Corned Beef Hash (Special); Buttered Cabbage, Cream Style Corn, Whipped Potatoes.
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.

*Menu subject to change without notice

At the Gilruth Rec Center

Children's Nature Hike - Date has been changed to August 15 at 10:00 AM. This one hour hike is for children 8 years and younger. This free hike will serve as an introduction to plants, animals and the environment. Parents are encouraged to attend.

Men's Open and Women's "B" Softball Tourney - Sign your team up early for this double elimination tournament. Registration is limited to the first 24 men's teams and 12 women's teams. Cost is \$65.00 per team.

Adult Dinner Theatre - Tickets still remain for the delightful musical production of "Once upon a Mattress". Shows will be held on August 7 and August 8. Social hour is 7:00; roast beef dinner at 8:00; showtime is 9:00 PM each eve-

ning. Cost is \$10.00 per person. Get tickets at Bldg. 11.

Saturday at the Movies - Tickets are now on sale at Bldg. 11 for the next children's movie presentation. Feature will be the Disney Classic - "Lady and the Tramp". Cost of \$1.00 also includes cartoons, popcorn & coke.

Predict Your Own Time Race - It's not too early to start warming up for a race which is won by the person who can predict to the nearest second the amount of time it will take them to run 5 KM. Cost for the race is \$4.00 per person, which includes a T-shirt. Call x3944 for entry blanks.

Defensive Driving - Space is still open in the Sept. 19th Defensive Driving Class. Learn to drive safely and get a 10% reduction in your auto insurance. Class meets from

8:00 AM to 5:00 PM. Cost is \$15.00 per person.

NAUI Advanced Diver Course - The JSC Lunafin Scuba Club will offer a NAUI Advanced Diver Certification course to certified divers only. The course will consist of lecture and open water work covering underwater navigation, limited visibility, night diving, search and recovery, light salvage, deep and decompression diving and dive tables. Two nights of pool work and two weekends of open water diving are planned. The 6-week course will begin September 15, with the last two weekends dedicated to open water work. Course cost is \$75.00 and students will provide their own equipment. Club rental equipment is available to club members. Register at the Rec Center.



Crippen takes time out

STS-1 Astronaut Robert Crippen talks to children in the March of Dimes summer day camp. His talk was a part of a morning field trip at JSC. Two weeks a year the children spend time swimming, singing, painting, and doing other activities that they normally don't take part in.

Chimex, War win 13th Annual Moonwalk softball tourney

Thirty-four teams entered the 13th Annual Moonwalk Softball Tournament. The winning men's team, Chimex, emerged from a field of 24 competitors. The women's

team, War, won over 10 other competitors. This year a men's team, the Senior Citizens, had the oldest players with the youngest aged 55 and the oldest aged 73.

Henderson qualifies at Master's

Abon Henderson, faculty coordinator for the SHARP Education program here at JSC, won two bronze and one silver medal at the Dallas Master's Invitational Track and Field Championships last weekend. He received second in the 100 meters and third in the 200 meter and 1600 meter relay.

The Master's is a meet for

older athletes who wish to continue track and field at a competitive level. Winners at the Dallas Master's advance to the nationals in Puerto Rico in late August. Henderson qualified in all three events for the August championship.

Henderson is a former All-American (1969-70) from the University of Tennessee.

NASA and ESA gear up for Space Telescope

The Scientific Program Committee of ESA selected the European Southern Observatory as the institute that will host the European Coordinating facility (ECF) for the Space Telescope (ST).

The ST is the largest telescope to be placed beyond the Earth's atmosphere. It will enable scientists to detect objects six to eight times more distant than presently observable. The ST will provide new insight into the origin, structure, and evolution of the Universe.

The 2.3 meter optical telescope is a joint project between NASA and ESA. The

United States Space Telescope Science Institute, now being formed by NASA and to be located at Johns Hopkins University, will work closely with the European Coordinating Facility.

The European Coordinating Facility will synchronize work throughout Europe on ST data analysis software, concentrate and distribute information on the ST itself, and make available advanced computer facilities for European astronomers. Fourteen members will actively staff the European Coordinating Facility; seven will be ESA staff

members and the remaining seven will come from ESA member states.

The facility will be located at the European Southern Observatory headquarters in Garching near Munich, Germany.

The European Southern Observatory is an intergovernmental organization for astronomical research with six member states - Belgium, Denmark, France, Germany, Netherlands and Sweden. Two other countries, Italy and Switzerland, are in the process of formally joining the organization.

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 AP3 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.

Miscellaneous

New Clothesline with vinyl cover - \$25; 20-cup coffeemaker - \$12; car bike carrier - \$10; 2 wrought iron wall lights - \$10; Diane Cooper x2646/333-5883.

Fresh light-colored honey from the spring honey flow is ready for you now. Ward x4976.

For Sale: Bunk beds \$180, Conn Trumpet \$135, old desk \$80, Heath H-9 computer terminal \$250. Jim Bates x4601/944-4687.

Heathkit GR-295 color TV, new 23" tube, solid maple cabinet, works very well. x3576/944-7042.

Solid redwood bar-be-que cart on wheels grill, rotisserie, temp ind., 3/8" galv. pipe frame. x3576/944-7042.

Heavy duty ping-pong table. Home-made and painted for outside use. \$50. x3576/944-7042

Heavy-duty playground-type swingset, w/two swings, trapeze, pump swing, rings and climbing pole.

Galv. pipe, three section jungle gym. Both in good condition. 946-7028 or 483-2262.

Sale: Sears Eagle-1 22 in. lawn-mower, side discharge. Needs tune up. \$25 Jeff x7429/482-5393.

For Sale: Over a dozen different used suitcases-inc 2-suiters, "B-4Bag", large women's case, etc. \$5-20 per case. Mason x5281 or 333-4144.

For Sale: Ping-pong table \$30 Mason x5281/333-4144.

Trailer rental \$5/day, magnetic CB antenna for car \$10 Tex Ward 488-5445.

Police/fire scanning monitor radio, Radio Shack Pro-47, VHF-lo VHF-hi/UHF, 10 channels, like new, \$70, Ron Cohen x3035.

Cars & Trucks

74 Toyota Corolla, 4 door, excellent condition, \$1675. x4545/996-0237.

1976 Ford LTD 4 door many options, low mileage, rust proofed, like new. \$2150. 333-2717.

1980 Pontiac Firebird Formula 14,000 miles-Small V-8-P-B-P.S. tilt wheel- A/C-excellent condition asking \$7,200 Call 481-6333.

1975 AUDI 100-LS, auto, air, fuel inj., AM/FM 8 track, power brakes, 66,000 miles, 24 mpg on regular gas, very clean, mechanically sound. \$2800. Call 474-2906.

79 Olds Cutlass 2 dr. small V8, loaded. Low mileage, mint cond. Must see. \$5,985.00 444-7475 weekends.

Sharp 1977 Chev. Chevette hatch-back. Jim x4947/480-2927.

54 Chevy Bel Air runs good-6cyl-3 speed some rust- easily restored. \$850 call 333-5133, after 5 pm.

1977 Buick Skyhawk, gold, auto, am/fm cassette, air, crown molding, 64,000 miles, blue book \$3800, asking \$3000. Kelly 482-7053.

Wanted to Buy: Van with bad engine and/or transmission (prefer long wheel base) call Pat x7452/477-8585 after 5.

77 Dodge, Royale Monaco, sedan, loaded, reg. gas Smith x3811, 482-2575 after 5 pm.

1975 Van Ford E-150 a/c truck 6 right side window in ldg. door-radio avail., carpeted interior good mech. cond. \$2000 Fischer x2131/476-0257 after 5 pm.

74 Volvo 144-1 owner, 4 sp. ac, am-fm stereo St. B radials, tr. hitch, good cond. \$1950 480-3356/x5951

For Sale: 1977 T-bird. One owner. Loaded Call 488-7629 after 6 pm.

76 Granada-4 door PB/PS/Air - one owner - excellent condition. \$554-6004.

For Sale: 1977 Lincoln Mark V Good condition. \$5700 Mendel x2074.

1979 Chevy Silverado Big-10 LWB. 350-V-8, auto, every option dual tanks, stereo, chrome bumpers, new paint, immaculate. 480-2529.

1979 Mustang "Ghia" 2-door, full pwr, tilt wheel, cruise control, aluminum wheel rims, am/fm stereo/tape white leather interior, 22,000 miles \$5950. 488-1326 after 5 pm.

'81 Renault 18i 8400 miles, all options, 5 spd. ac/ps/pb, power windows/locks, stereo, warranty, \$7700/best offer. Ron Cohen x3035.

1978 Toyota Celica GT, liftback a/c-pwr. steering & brakes, FM stereo, sunroof 38,000 miles call 488-2795 - \$5200.

1976 Cadillac Seville loaded-silver & grey Blue book \$5200 loan value \$4950 asking \$5000 Dan Myles x7484 can see after 5:30 (Home 481-9015).

'79 GMC pick-up, 25 K miles, 1/2 ton, long bed, ac/ps/at. \$750 plus balance due. Sanchez x2651/559-1755.

Stereos & Cameras

Heathkit GR-295 color TV set, 23" tube, solid maple cabinet, works well \$225 x3576/944-7042.

For Rent: Portable VHS video recorder and color TV camera. Either unit \$45 for 3 days or both units - \$75 for 3 days 488-0903.

CAMERA - Barely used Mamiya C330 Professional (Mamiyapro) with 80 mm 2.8 lens, viewfinder. 488-8862 after 6 p.m.

Property & Rentals

For rent: Galveston By-The-Sea Condominium. Two bedroom furnished apartment for rent by day, week, or month. Clements 474-2622.

Wanted: Apartment, house, or condo for rent during the month of August. 3 young Air Force officers will house-sit, apartment-sit, etc. during August. Call 486-5346/eve we work in Bldg 4.

Rent: Lake Livingston, Cape Royal 3 bdrm waterfront cottage by marina. Tennis, pool, golf, boat ramp. By week 488-3746.

150 frontage lot on Hwy 6 South of Alvin in Arcadia. Good business location. Only \$10,000 479-6942.

Lake Livingston lot-adjacent paper co property-hunting. Blacktop streets, water electricity available. Camping, ramps, restaurant & swimming pool. \$5,900 479-6942.

For lease: Wedgewood 3-2 1/2-2 2 story house, fireplace, fenced yard \$475 plus deposit 486-8578

For Sale: Large townhouse 2-2-1cp, pool convenient to schools, shopping, 15 min. drive to JSC. New listing. Must sell owner moving 31,500.

For rent or sale: Bay Pointe Townhouse, LaPorte, 2 br-1 1/2 bath, 2 covered carports, private patio, refrigerator, stove, drapes \$400 monthly, Biggs x5126/471-4209.

For Rent: 3-2-2 Oakbrook Clear Lake City, fenced, fireplace, enclosed patio, 1800 sq. ft. \$490/mo. 474-3507.

Wanted

Office chair in fair to good condition. Call Dave Kopp x4151/334-2652.

Wanted: Information and schematics for old Zenith console radio model No. 11. Also need instructions and schematics for a Rek-O-Kut Model TR-12 record cutting machine. Jim Bates x4601/944-4687.

Baby's high-chair, reasonably priced in good condition. After 5, 488-2716.

Boats & Planes

FAA pilot ground school - \$10 instructors/2 scat trainer available, low rates, Gulf Coast Aero Club 483-4436 (w) or 480-2634 ask for Mark.

For Sale: Dolphin Sr. sailboat with trailer, \$500 Joe x5437.

1981 Marquis Caribbean, low hours, 145 hp I/O 19b foot cubby cabin, tarp, skies, vest, trailer \$7500. 480-8281.

Musical

For Sale: Acoustic 118 Bass Amplifier, excellent condition \$290 L. Stokes x3791/480-3162.

For Sale: King Tempo cornet with Bach G mouthpiece, excellent condition, \$210. 334-3370.

Bells for school band. Musser mallets and stand included. \$130. 333-3544/x2323.

Household

Spanish accent chair \$30, lamp table \$30, 2 upholstered stools \$30; also Bentwood rocket \$30. 488-4188.

Twin size bed. Brass look head and foot board \$50 Karen 480-3635 x5391.

Kingsize Fieldcrest Imperial Rose (Foley's) bed spread \$40 10 foot round wool early American rug with 4 matching ovals \$75. 482-7073.

GE room air conditioner-4000 BTU/HR-115 V (used one month only) \$150 Retina III c, wide angle lens/view finder flash attachment \$50 Verrengia x5369.

"Magic Chef" self cleaning double oven, build-in type practically new \$300. 18.5 cu.ft. frost free refrigerator, with ice maker like new \$575. 488-1326 after 5 pm.

For Sale: Fredrick Window air conditioner. 19,500 BTU, 20 volts (or willing to trade for an Air Compressor or Garden Tiller of same value) \$200. Ron x2436/339-2507.

Cycles

'79 Honda Hawk 400, Type I. Custom seat & rack, cover, original seat 48 mpg excellent bike for beginners & commuters big enough for the hiway. \$1200 Mr. Drews x4326.

1980 Honda 750 F 4000 miles, excellent condition, luggage rack, faring, adult owner, just pay off note plus \$150. 460-0236 after 6.

1980 Honda CX500 custom, excellent cond. 5200 miles, \$2200 Foster 487-0155.

Pets

AKC reg. toy poodle, black male, 4 yr. old, \$75. x3576/944-7042.

Guinea pigs. Four weeks old, cuddly, tame, healthy. Some curly haired, some smooth. \$5 each 333-3544 or 2323.

Carpools

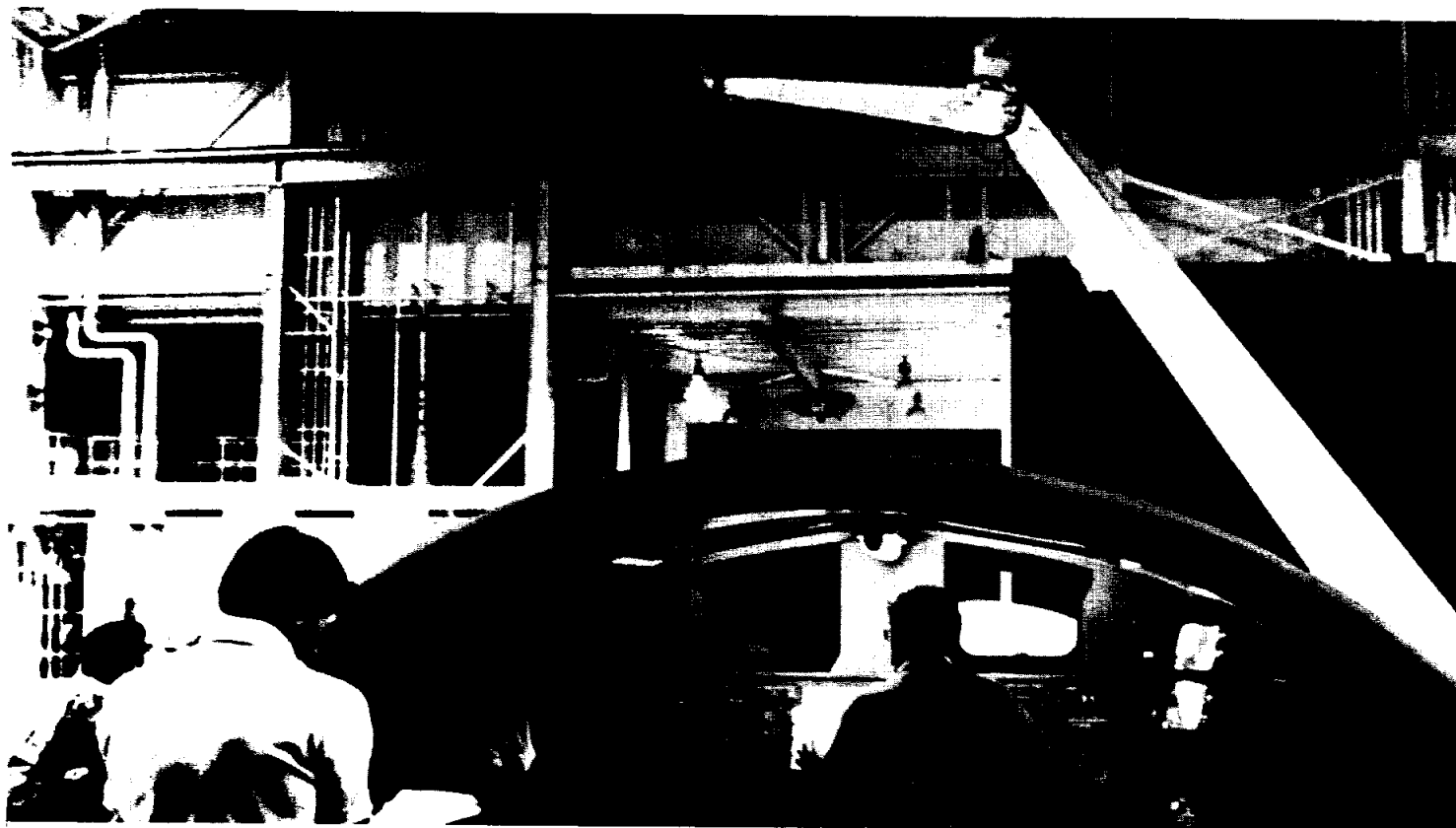
Want to join or form carpool from downtown/Allen Parkway/RiverOaks area. Call Ron Cohen x3035.

Carpool wanted: K-Mart (Red Bluff) to JSC. 8:30-5 shift. Dianne 483-5549.

Roundup deadline is the first Wednesday after publication.



The Roundup is an official publication of the National Aeronautics and Space Administration, Lyndon B. Johnson Space Center, Houston, Texas and is published every other Friday by the Public Affairs Office for all space center employees.



Practice, practice, practice

STS-2 Astronaut Dick Truly is pictured here logging in hours over at building 9A's 1-G Remote Manipulator Arm simulator. STS-2 will be the first flight to carry and operate the Canadian developed extension. The cost of the RMS's research and development, as well as the first arm itself is Canada's contribution to the Space Program. Future arms will be sold to the United States. During the second flight the RMS will not deploy a payload, it will only test its movement and grappling capabilities. The actual arm is a smaller round shape that cannot lift its own weight on Earth, while it's built for a zero gravity environment. Also pictured here are Bob Kain and Karen Ehlers, RMS procedures specialists.

NASA develops new light aircraft safety subfloor

A promising concept to protect people in light airplane crashes seems so simple one wonders why it wasn't thought of long ago: make the bottom of the fuselage energy-absorbing.

Since the mid-1970s, NASA and the Federal Aviation Administration have been studying the crashworthiness of light planes. In 1977, they began an indepth look at the energy-absorbing possibilities of the fuselage subfloor.

By redesigning the area between the interior floor and the outer skin of the airplane's belly, researchers at NASA's Langley Research Center hope to reduce the crash forces transmitted to the inside of the plane. Other work is aimed at improving the crashworthiness of passenger seats and restraint systems.

Americans own many lightweight, general aviation airplanes. A NASA/FAA goal is to give people a better chance to walk away from

airplane crashes than is now possible. A subfloor strong enough to bear the stresses of flight, yet immediately crush under the force of impact at a predetermined level, may help save lives.

Phase one of a series of tests has just been completed at Langley. Dozens of energy-absorbing subfloor ideas evolved into five concepts. Several copies of each were fabricated into subfloor sections about one-and-one half meters (four feet) square, the typical width of a civil airplane interior at the floor.

The subfloor sections were first tested in a large machine that slowly compressed them with a force equal to that of an average crash. Other sections were dropped from a height of about three meters (nine feet), simulating the vertical component of an average crash. Each subfloor section had mounted to it the equivalent mass of two seats and their occupants.

The concept of transforming a 15 centimeter (six-inch) subfloor, with stiff longitudinal beams and lateral bulkheads, into a crush zone with collapsible members was proven worthy of further testing.

Theory indicates that a velocity change of about 26 kilometers per hour (16 mph) at 25 G's (forces of gravity) is the maximum energy a six-inch subfloor can absorb. Tests of the subfloor sections have proven that concepts designed by Langley researchers Huey Carden and Robert Hayduk are on the right track and getting near the maximum amount of energy absorption possible. Carden and Hayduk work at Langley's Impact Dynamics Facility.

"We didn't know if our subfloors would behave the way we wanted them to," reflects Carden, "but all three of the completely new subfloor concepts performed as we hoped and one of the two minimum modification, or 'mini-mod', concepts performed well, too. A mini-mod is an energy-absorbing design that would require a manufacturer to make only relatively simple modifications, while a so-called 'advanced' concept uses a more radical design departure.

"Of course, we don't design airplanes," Carden explains, "all we can do is provide the technology — a data base — to manufacturers and hope our general concepts will eventually work their way into the aircraft structure and save lives. There is a need for it."

The JSC employee assistance office is ready to help

In our complex world of responsibilities, conflicts, and strain, it is often necessary to seek help from others. The Employee Assistance office here at NASA tries to do just that — help people overcome problems. Even though the office handles many problems itself, its main function is to refer people to agencies and services that can render specialized help. "We only refer people to sources that we know personally," said Connie Alexander, employee assistance counselor.

"The bottom line is increasing worker productivity on the job," said Alexander. "We stress that all the guidance and referrals that take place in our office are strictly confidential; only a court sapina can get information from us," added Alexander.

The Employee Assistance program aids all different levels and divisions of employees here at JSC. Family related problems are also dealt with as they often have a direct effect on an employee's performance on the job. Bankruptcy, divorce, run-aways, single parenting, depression, teenage pregnancy and alcoholism are some of the problems from the office's current 90 clients.

Crisis intervention is not the total scope of the Employee Assistance office. Awareness presentations on alcohol, rape, retirement, and self defense are part of an overall "preventative medicine" program — approaching problems and learning about them before they happen.

Retirement clinics have had increased attendance. Six sessions were held at the Gilruth Center last year. Learning how to use the extra time in retirement is often a troublesome problem.

Connie Alexander is one major reason that the program has had such positive feedback and success. "Connie spends a great deal of time in evenings and on weekends; she makes the program do so well," said Gene Horton, co-worker in the program. "Confidentiality is the big thing; people have confidence in her — that's what makes the program work," added Horton.

Alexander is an ex-high school teacher. In 1974 she left Clear Lake High when she started losing her sight. By 1976 she became totally blind.

"It was pretty scary — What does a blind woman do with a master's degree in English?" said Alexander. The next year she enrolled in University of Houston and earned a master's degree in clinical psychology. After working for the National Alliance of Business with ex-offenders she came to NASA in February of 1980.

"At first it was hard to find the job I wanted. But I'm very happy here at JSC; I know a lot of people from the area," said Alexander with a smile.

"I keep all my records in my own style of shorthanded brail; even if someone got into my files there wouldn't be anyway that they could read them — now that's confidentiality," said Alexander with a chuckle.

Employees come to the office on their own. "People seek us out, we don't witch hunt," said Alexander. Often times people come in to get advice on helping a fellow employee. Alexander counsels them on how to approach a person in need of help. "In a successful situation, the employee will listen to their friend and come in and see us; we're just here to help," said Alexander.

Fifth FLTSATCOM to be launched

The fifth FLTSATCOM communications satellite, FLTSATCOM-E, will be launched by NASA from the Kennedy Space Center, Fla., in mid-August. The Department of Defense satellite is intended for service over the eastern Pacific Ocean.

FLTSATCOM-E will be placed in a geostationary orbit at 73 degrees west longitude above the equator, where it will provide two-way communications in the 240 to 400 MHz frequency band, between any two points on Earth visible from its orbital location. The spacecraft has a design life of five years.

The FLTSATCOM program is managed by the Naval Electronic Systems Command. The Air Force Space Division, Los Angeles, is responsible for production, launch vehicle/spacecraft integration and tracking and data acquisition.

The FLTSATCOM satellites are the spaceborne portion of a worldwide Navy, Air Force and Department of Defense system to enable communications between naval aircraft, ships, submarines, ground stations, Strategic Air Command elements and presidential command networks.

The satellite system will provide 23 ultra high frequency communication channels and one super high frequency channel.

This will be the 57th launch of an Atlas Centaur, NASA's standard launch vehicle for intermediate-weight payloads. The first Atlas Centaur was launched May 8, 1962.

NASA is reimbursed for all additive costs of the Atlas Centaur and launch services by the Department of Defense under provisions of a launch services agreement.

The Atlas Centaur (AC-59) launch vehicle will place FLTSATCOM-E into a highly elliptical orbit of 167 by 35,970 kilometers (104 by 22,351 miles). After reorientation of the satellite, a solid propellant rocket motor aboard the spacecraft will be fired to circularize the orbit at a synchronous altitude of 35,788 km (22,237 mi.). At that altitude, because the speed of the spacecraft in orbit matches the rotational speed of the Earth, the satellite remains in position over one spot on the equator.

Until early 1974, Centaur was used exclusively in combination with the Atlas booster. It was subsequently used with a Titan III booster to launch heavier payloads into Earth orbit and interplanetary trajectories.

The Atlas and the Centaur vehicles have been updated over the years. Thrust of the Atlas engines has been increased about 22,400 N (50,000 lb.) since their first use in the space program in the early 1960s.

The Centaur D-IAR has an integrated electronic system that performs a major role in checking itself and other vehicle systems before launch and also maintains control of major events after liftoff. The new Centaur system handles navigation and guidance tasks, controls, pressurization and venting, propellant management, telemetry formats and transmission, and initiates vehicle events.

Update

from pg. 1

and final checkout of the software should be completed by August 10 in JSC's Shuttle Avionics Integration Laboratory.

Meanwhile, engineers are considering alternatives to reduce an overpressure condition on the vehicle experienced during the STS-1 launch.