

NASA, ESA sign solar polar pact

Shuttle-launched craft to swing around Jupiter and back to Sun

NASA and the European Space Agency (ESA) have signed an agreement for an International Solar Polar Mission (ISPM) to be launched in 1983.

JSC will manage the Space Shuttle portion of the Solar Polar Mission. The two spacecraft will observe the Sun for the first time from above its polar regions.

The Space Shuttle will launch both spacecraft simultaneously by an Inertial Upper Stage Booster on a trajectory in the ecliptic plane (the plane which contains all of the planets) to Jupiter.

The two spacecraft will swing around Jupiter and use the gravity of that planet to redirect their paths out of the ecliptic

plane back toward the Sun.

They will pass over the north and south solar poles, swing back through the ecliptic plane, pass over the other solar poles, and then fly back out to the vicinity of Jupiter's orbit.

Primary objective of ISPM is to explore the Sun and its environment. Secondary objective is to investigate the interplanetary medium and the Jovian magnetosphere.

The period from launch until shortly after the second pair of solar passages is approximately five years. JPL will manage the effort for NASA's Office of Space Science.



"HOUSTON, ATTITUDE IS CORRECT, do we have a go-ahead?" says astronaut Story Musgrave. "You have a go," says Mike Brzezinski. Musgrave pushes buttons and maneuvers levers, acting out operation of the Remote Manipulator System (space crane) for an ABC-TV special filmed on site last week. "The payload is clear and sitting right above the cargo bay," says Musgrave. "OK, payload deploy," says Brzezinski, playing the Voice of Houston. "I just happened to be here and got the part," he said. (Brzezinski is test director on the RMS.) The show, written and narrated by Ray Bradbury, is "a celebration of the future," director Malcolm Clarke said. This scene was shot using the "blue screen technique," allowing animation to be added later. "We're going to deploy the satellite in Hollywood," Clarke said. The show will air July 20 - Space Day.

Trip to JSC, mockup tour changed Bradbury's mind

(Ray Bradbury, author of Fahrenheit 451, The Martian Chronicles, The Illustrated Man, and numerous science fiction stories and scripts was on site last week with an ABC crew. He took time between takes to talk to Roundup about the Space Shuttle.)

"I didn't get excited about the Space Shuttle until I saw the mockups and looked at the interior," Ray Bradbury said sitting at a control center console.

"But I'm a rocket enthusiast and a Martian enthusiast," he went on. "In many ways the Space Shuttle seemed to me a step backward, because I want to keep going out further in Space. I want those Space colonies much more quickly.

"There's plenty of excitement in the Space Shuttle program, when you realize we can put telescopic equipment into

Space, and with the Shuttle eventually build colonies for experimentation.

"But if the Shuttle is just going to migrate around the world, that's not very exciting. Because jets do that right now. Sure, the Shuttle can do it faster, but my heart belongs in deep Space, and the sooner we can get the Shuttle further out from our atmosphere, the happier I'll be.

"I want a new Apollo program put into action to get our hearts out there again. We've got the Moon, and we've got Mars. All you need is to build colonies and set up chemical units to break oxygen and hydrogen out of the rocks. Then you can make your own water and put together your own farming communities.

"Then you have your rocket pads to take off into deep Space."

At this point Bradbury was called back onto the set. "Stand by... Turn 'em over," called the director, and Bradbury spoke into the camera:



Ray Bradbury

"Can Space rev up our minds and grow us really tall? I think it can. But there are many who disagree. The decision is one which will have to be made by all of us."

STS-1 CREW PATCH

At left is the mission symbol designed last fall by Bob McCall for the first Space Transportation System flight. "John (Young) drew his concept of the mission," McCall said. "I did about 15 design sketches, then Bob (Crippen) and John picked one."



Enterprise to the Pad

The orbiter Enterprise was rolled to Pad A at Kennedy Space Center May 1 as part of an exercise to clear the way for the launch of its sister ship Columbia.

A 15-story tall external tank was mated with two inert solid rocket boosters on a Mobile Launcher Platform April 17. The orbiter was then hoisted from a horizontal to a vertical position, lifted 190

Blood pressure

Week of May 14 screenings available

Approximately 657 employees at JSC are estimated to have high blood pressure; over 329 are unaware that they have this disease and only about 82 are now receiving adequate treatment.

High blood pressure is now recognized as a major affliction producing premature sickness, disability, and death; and it is a leading cause of stroke, heart disease, and kidney failure. This disease is also the leading cause of death among black citizens across the United States.

Knowledge, medications, and other forms of treatment are available to detect and control this disease so that those who have high blood pressure can prevent it from leading to serious consequences.

Detection is the key word.

During the week of May 14, the JSC Clinic will again conduct screening clinics at various locations on site. These clinics are free of charge and open to both civil service and contractor personnel. Times and locations are as announced via the JSC Announcement. Get your blood pressure checked—it's quick, easy and painless.

feet above the floor, swung over a transverse beam, and then lowered gently onto the deck of the platform to be mated with the external tank.

The entire vehicle went through vibration testing before the move to the pad where it will remain until the first week in June. The orbiter Columbia is now undergoing checkouts in the Orbiter Processing Facility.

TROT

YOUR COST REDUCTION REPORT...



ON A JSC FORM 1150 TO COST REDUCTION OFFICE BG-3 NOW!!!!

Cartoon by Russ Byther

Kraft honored twice for excellent leadership

Each year the American University in Washington presents a Roger W. Jones Award for Executive Leadership to two career executives in Federal government.

This year Christopher C. Kraft, Jr., Center director, will receive the award May 12. Criteria for the selection are superior leadership that results in organizational achievement, and a strong commitment to continuity of government by developing effective managers and executives.

This is the second year American University has granted the award; last year it went to another NASA executive, Edwin C. Kilgore of Langley.

The University set up the award to further the purpose of first-rate leadership in government.

Kraft also will be honored on May 15 when he receives an honorary doctorate in public administration from Villanova University in Pennsylvania.

Awards

Solar System photography earns PTD honors

NASA's Photographic Technology Division has received the Silver Progress Medal, premier award of the Royal Photographic Society in London.

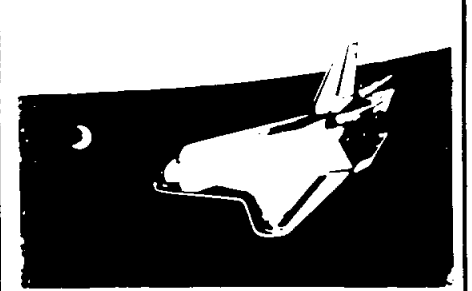
Each year the society presents this medal "in recognition of any invention, research, publication, or exhibition which results in important advances in the development of photography."

The society's council unanimously chose NASA's PTD for its achievements in extending photography to Space research, "and in particular for increasing our knowledge of the planetary system, especially the Earth and the Moon."

The first Progress Medal was awarded in 1878; therefore this year is the centenary of the award. Also, until now the award has always gone to individuals. This is the first time the award has been made to an organization.

The award will be presented on May 8 at the Photography Ball in Cunard International Hotel, London.

Everyone who works on site should receive a copy of *Roundup* in the mail—including on site contractor employees. Branch secretaries, please review your section. If everyone is not receiving a copy, including contractor employees, fill out another JSC Form 2271 and send it to Distribution



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 JSC employees.

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Photographer: A. "Pat" Patnesky

Bulletin Board

Please limit announcements to 10 lines, double-spaced copy

There is a Professional Organization for Secretaries

There are professional organizations for doctors, lawyers, engineers; did you know there is one for secretaries? Today's secretary must be ready to meet the challenges of a rapidly changing business world. Increase your own career potential by becoming a member of the National Secretaries Association (International). Over 38,000 secretaries are taking advantage of the benefits of membership in NSA such as development of initiative and leadership abilities, opportunities to participate in educational, professional, and personal development programs which increase the secretary's on-the-job effectiveness. For information send a letter to NASA Clear Lake Chapter, NSA, Attention Gale P. Rohner, P.O. Box 57516, Webster, Texas 77598, or call Mrs. Rohner, 554-6684 after 7:00 p.m.

Would You Like to Begin Your Weekend With a Bang?

How about joining us for a disco dance with dinner and drinks included. If you feel particularly energetic, you may even want to compete in the disco dance contest.

When: Friday, May 18th.

Where: Gilruth Rec Center

Time: 7 p.m. to 1 a.m.

Menu: Barbecue dinner (served at 8)

Price \$6.75 per person. (includes everything)

Tickets will be on sale at Building 11 cafeteria thru May 15.

Come join us and disco the night away.

Disco Goes Cowboy At Gilruth Center

The JSC Dance Club is offering a mini series of dance lessons in the Country and Western and Disco modes. The mini series will be a five-week series of early and late classes, 6:45 and 8:15 p.m., on Wednesdays at the Gilruth Recreation Center. Instructors for the series will be Bob and Rae Calvert, ballroom instructors. C&W lessons will include the Country Two Step, Cotton Eyed Joe, Country Polka, Country Waltz, and the Schootische. The Disco lessons will consist of the basic Swing Disco step, plus a variety of additional steps. For more information and pre-registration, contact Lyyle Jiongo, X-3445.

On Sale at the JSC Exchange Store

Dean Goss tickets - \$10 single

\$20.00 couple (Reg. \$14.50)

ABC Theatre tickets - \$2 each

General Cinema tickets - \$2.40 each

Six Flags Over Texas tickets

\$7.25 for one day (Reg. \$9.25)

\$9.25 for two days (Reg. \$13.95)

Astroworld tickets - \$7.25 (Reg. \$9.25)

Magic Kingdom Cards - Free

Space City Disco Dance tickets - \$6.75 each

May 18, 1979 at the Gilruth Recreation Center. Ticket sales end May 15, 1979.



Saturday Afternoon Fever

A Soccer League Could Be Started

There have been a number of requests made to the EAA and the Rec Facility staff that we start an adult soccer league at JSC. If you are interested in playing soccer at JSC, please call the Recreation Facility x3594 and leave your name and phone number. With enough interest a league could be started.

Art Exhibit Deals With Problem of Perspective

Space in Two Dimensions, an educational exhibition now on view at the Museum of Fine Arts, Houston, shows how artists throughout history have dealt with the problem of perspective. The exhibition will be on view through May 27 in the Masterson Junior Gallery, 526-1361.

Learn Texas History Through Photographs

"The Big Bend: The Last Frontier of Texas," an exhibition from the U.S. National Park Service will be on view at the Houston Museum of Natural Science through May 13. Included are contemporary photographs of the Big Bend and unique historical photographs compiled from many sources including Ansel Adams and W.D. Smithers. Call the museum at 526-4273 for more information.

How to Make Big Friends And Influence Small People

Growing up is tough, for everyone. But growing up for some children is a lot tougher because they have only one parent in the home. There are children from single parent homes in Clear Lake and the Bay Area community who would love to have the chance to be your friend. You can help a child to experience positive development of character and personality and you can have fun doing it. Big Brothers and Sisters is looking for mature men and women who are willing to spend a little time with a girl or boy. It takes so little; it means so much. Call 486-9682 in Clear Lake, or 526-LOVE in Houston.

Striking Out On Your Own

The Service Corps of Retired Executives and the Small Business Administration will sponsor a workshop on the "BASICS OF RUNNING A SMALL BUSINESS" at the University of Houston Community Education Center, 4800 Calhoun, Entrance No. 1, on May 17, from 8 - 4:30. For further information, call 226-4945.

SCHEDULE FOR "SATURDAY AFTERNOON FEVER"

11:00 - 5:00 BEVERAGES, POPCORN, SNO-CONES, HAYRIDES

12:00 - 2:30 BAR-B-QUE DINNER SERVED

2:00 - 5:00 DISCO, FEATURING "D J" RENEL BOUDREAU

PRE-TEEN ENTERTAINMENT

11:00 - 5:00 KIDDIE RIDES

12:00 - 4:00 ZAY WYNN, THE CLOWN

1:00 - 1:45 3-LEGGED RACE

1:45 - 2:30 SACK RACE

2:30 - 3:00 PENNY SCRAMBLE

SPECIAL ACTIVITIES

12:00 - 4:00 MASTERS OF MIME

12:15 - 12:45 CLOGG HOPPERS

12:45 - 1:15 DISCO DANCE EXHIBITION

1:15 - 1:45 CLOGG HOPPERS

3:00 - 4:00 EGG TOSS, ALL AGES

3:15 - 3:45 BELLY DANCER

ADULT ENTERTAINMENT

1:00 - 3:00 OBSTACLE COURSE

1:30 - 4:30 TENNIS TOURNAMENT

12:00 - 3:00 DUNK TANK

2:00 - 3:00 BINGO

4:00 - 5:00 3-LEGGED RACE

FREE SPORTS - ALL DAY

HORSESHOES

SOFTBALL

SWIMMING

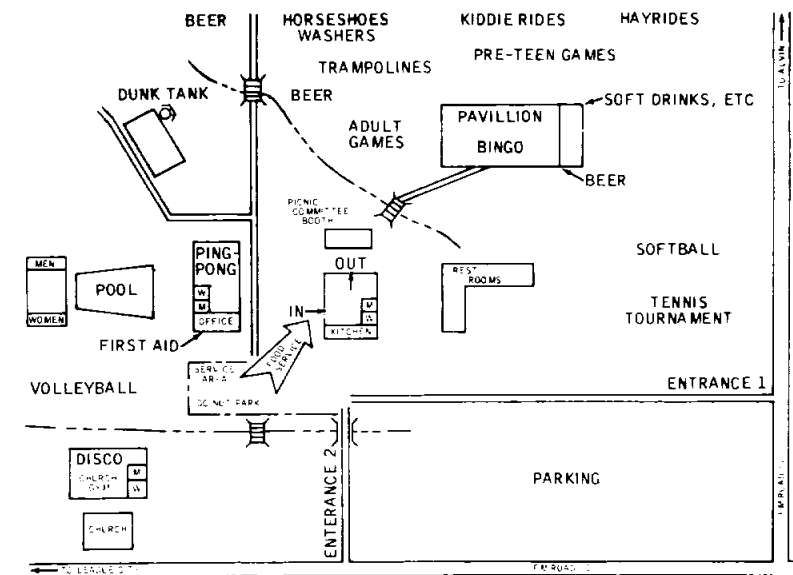
PING PONG

TRAMPOLINES

WASHERS

FOOTBALL

SOCCER



What's cookin' in the JSC cafeteria

Week of May 7 - 11

MONDAY: French Onion Soup; Beef Chop Suey; Polish Sausage w/German Potato Salad; Breaded Veal Cutlet (Special); Okra & Tomatoes; Green Peas. Standard Daily Items: Roast Beef; Baked Ham; Fried Chicken; Fried Fish; Chopped Sirloin; Selection of Salads, Sandwiches, and Pies.

TUESDAY: Split Pea Soup; Shrimp Creole; Salisbury Steak; 8-oz T-Bone Steak; Fried Chicken (Special); Mixed Vegetables; Beets; Whipped Potatoes.

WEDNESDAY: Clam Chowder; Fried Catfish w/hush puppies; Braised Beef Ribs; BBQ Plate; Weiners & Beans; Shrimp Salad; Stuffed Bell Pepper (Special); Corn O'Brian; Italian Green Beans; Rice.

THURSDAY: Chicken Noodle Soup; Beef Stroganoff; Turkey & Dressing; BBQ Smoked Link (Special); Lima Beans; Buttered squash; Spanish rice.

FRIDAY: Seafood Gumbo; Broiled Flounder; Liver w/onions; Seafood Platter; Fried Shrimp; Meat Sauce & Spaghetti (Special); Green Beans; Buttered Broccoli; Whipped Potatoes.

Week of May 14 - 18

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 & Pies.

TUESDAY: Celery Soup; Frito Pie; Turkey a la King; Pork Chop w/applesauce; Chinese Pepper Steak (Special); Au Gratin Potatoes; Breaded Squash; Buttered Spinach.

WEDNESDAY: Clam Chowder; Fried Catfish w/hushpuppies; Braised Beef Ribs; Mexican Dinner (Special); Spanish Rice; Ranch Beans; Buttered Peas.

THURSDAY: Green 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 Halibut; Liver & Onions; BBQ Link (Special); Breaded Squash; Green Beans; Lima Beans; New Potatoes.

'You can't grow alone'—panel

"Select your boss. If he is going places, so will you," advised Angie Johnson, an engineer in Payload Operations.

She was speaking with a panel on "non-traditional roles for women," a pep talk, mass therapy, and career advising session April 24 that set the tone for Women's Week.

"You can see it at department store sales," Johnson added. "The woman who shoves everyone aside gets shoved back. The woman who maneuvers her way through, takes advantage of openings, and excuses herself along the way gets to the front and gets her own selection of merchandise."

Carolyn Leach Huntoon, chief of the Biomedical Lab Branch and deputy for personnel development in the Astronaut Office was moderator, and opened the

program saying, "There are 662 female JSC employees. Of those, 178 are classified 'professional.'"

"If we ever got together and decided to do something, it would really be something," Huntoon said.

"And everyone knows you can't get anything done without secretarial help," Huntoon added.

Estella Gillette then spoke. "My career as a secretary has been fulfilling and satisfying," she said after telling her story of growth from a clerk-typist to International Secretary of the Year.

She credits her success to "teamwork and responsibility."

"You can't grow alone," she added, encouraging the women to be active in committees, schools, and community groups.

"I feel fortunate that the world

changed in time for me," said Marilyn Bockting, one of the first secretaries at NASA to move into a management role.

She said that at first her career goals were to be a "top notch secretary. Of course, in the 1880's they didn't have upward mobility," she joked.

Bockting mentioned that managerial women don't have many role models. "At first I thought everything that happened to me was because I was a woman. Now I realize they were problems that would happen to any new manager."

Shannon Lucid and Sally Ride then narrated an astronaut training film that showed them in parachute training, floating weightless in the KC-135, learning to be a CapCom in the control center, and in water survival training.

The floor then opened for questions. People asked: Why do women still play gossip and jealousy games? What do you do if your secretary won't do your typing and she will do it for the men? The answer in each case was, bring the problem out into the open. Talk it out and resolve it.

Words like "visibility," "responsibility" and "Make yourself indispensable while training someone to take your place when you move on" were salient during the session. But Huntoon's opening statement probably best addressed the Women's Week "exploration"



ANGIENNETTA JOHNSON—
"The woman who shoves gets shoved back." NASA photo

theme: "If you are not happy doing what you're doing, you should look for something else. If you are happy, keep doing it."



Audience at April 24 women's session

Roundup Swap Shop

Cars & Trucks

72 Audi 100 LS, 22 mpg, auto, A/C, vinyl roof, \$1300. 486-4204.

72 Buick Electra 225, 2-dr, HT, A/C, PB, PS, tilt wheel, cruise, exc cond, uses regular gas, best offer over \$1000. x4239.

71 Gold Camaro, mag wheels, auto, air, am/fm/8-track, front end damage, \$350. 482-7715 after 5.

73 Silver Mark IV, low mileage, exc cond, \$3695. 486-8119.

77 Thunderbird, Town Landau, loaded, 16,000 miles, extra sharp, sacrifice, \$5800 firm. 674-0017 days.

75 VW bus, auto, A/C, AM/FM, exc cond, \$3750. 332-2364.

15 ft. travel trailer, sleeps family of 5, ice box, LP stove and oven, very good cond, \$1600. 482-7073.

78 Cadillac coupe delegeance, blue/blue, loaded. Rick x5341.

77 Audi Fox, 4-dr, A/C, AM/FM, 23K mi, \$4300. 488-0506 after 5:30.

56 MB 190 SL, needs repairs, \$4000 or trade/offer. Colvin x4235 or 645-8416.

Four Bridgestone radial tire w/steel wheels, good cond, size 195/70HR14. Rocha x4393.

Two four-lug mag wheels, \$30 each. Riojas x7484 or 945-3094.

70 Impala, 350, A/C, PS, body in exc cond, no rust, exc running cond, \$600/best offer. x5073 or 334-2905.

78 Impala cpe, 10,000 mi, 305 V8, PB, PS, A/C, cruise, rust-proofed, stereo cassette. 473-8242.

74 Chev Window van, AT, PS, PB, front and rear A/C, picture windows, bumper guards, wheel covers, CB, 8 pass. 944-5944.

77 Buick Century 4-dr, cruise/stereo; economical V-6, mint cond, see to appreciate, \$3800 firm. 334-2261 after 5.

78 Ford van, customized for camping, 110V wiring, a/c, bed, stereo, captains chairs, 22,000 miles. Mayhew 333-3291.

76 Itasca mini motorhome, 25' fully self-contained, 4kw Kohler gen., many extras, only 10,700 miles, 9+mpg, \$15,750 or trade for property. 334-1303 after 5.

70 Toyota Corona, 4-dr, sed., tan with vinyl top. Four speed manual, engine good cond. \$795. 944-1321.

68 Dodge Dart HT, 80,000, 6 cyl., no rust, exc running, needs front body work and headlight. Brown x2161 or 333-3103.

75 Toyota Corolla, 4-speed, AM radio, 8-track, uses regular, 58,000, \$2500. Brooks 488-8497.

Complete Eaz-Lift class III (for any size trailer) equalizer hitch complete with all car and trailer parts, \$140. 944-8238.

74 Chrysler SW, power, A/C, cruise control, 54,000 miles, owner going overseas, must sell, \$1600. 334-1905.

69 Wheel camper, hard top, pop-up stove and oven, sink, dinette, sleeps 6, good cond, \$795. 485-4426 after 6.

76 Datsun 280Z, 30,000 miles, exc cond. 333-2438.

79 Cutlass supreme, V-8, auto, wheels, power, tilt, stereo, 10,000 mi, lt. blue, immaculate. Ellis x2541 or 466-5127.

72 Chevy Caprice, 4-dr, good tire, new battery, new exhaust system, new A/C. Chaney x2366 or 488-0518.

77 Dodge motorhome, 20', loaded, sleeps 6 adults, exc cond, \$10,000 or \$1000 equity and assume note. John 946-1965 after 5.

Stereos & Cameras

Scanner, Realistic Pro 7-A, all crystals, antenna, AC/DC, \$75. 334-5949 evenings.

AM radio from 1975 Ford Granada, good cond. Parker x4241.

Atlas 210X transceiver 10 thru 80 meters, total of less than 30 hrs operating time, \$500. Fully regulated 15 amp power supply for above, home build, \$50. Terrel x2437 or 481-1808.

2 meter Motorola monitor, new power supply Vista IV input 120 VAC 0.6A output, \$18; New E. F. Johnson power supply; \$12; Collins TCS receiver w/outboard power supply, \$30. Girala x4643 or 921-7212.

Polavision, used once, camera, lights, projector, \$400. 482-3513 after 5.

Musical Instruments

Beautiful practice piano, exc cond, 334-1045 after 5. Also available piano tunings and repair service. Sprague x2408.

Piano, upright, Baldwin, \$275. Ghetzler 333-4029.

Cycles

Girls 20" Schwinn "May Fair Lady" bicycle like new, \$35. 481-2535.

Girls 20-inch bike, \$30. Colvin x4235 or 645-8416.

Personals

Wanted: Woman to share 2 bdrm condo with same, pet welcome. Joan x2216 or 334-1376 after 5.

Wanted: Housing or bedroom accommodations for JSC Summer Interns. Needed for mid-May through end of August. Contact Jan Garner x3734 or x3735.

Carpools

Anyone interested in sharing a ride from Westminster Village Apts, 10910 Gulf Freeway to JSC, 8-4:30. Paula x4660.

Wanted: Carpool from Galveston. Haines x3831.

Would like to form carpool from the SW Frwy. at Westpark or that general area for the 8-4:30 shift. Melba x4386.

Wanted: Person to carpool from West University to JSC between 8-4:30. Krpec x3284 or 661-4789.

Miscellaneous

Playground quality galvanized jungle gym, \$55; Swing set w/3 swings and child seat available, asking \$90; Lifetime slide, \$206.95, asking \$95. 333-2808.

Stamp collector overstocked with postage. 15-cent stamp for only 14 cents, minimum order 100 stamps please. Jeff x7429.

Ads should be under 20 words and include home phone number. Typed or printed ad copy, a separate sheet for each ad, must be in the Roundup office AP/3 by Wednesday the week prior to publication. Swap Shop advertising is open to JSC federal and on-site contractor employees for non-commercial personal ads. Goods or services must be offered as advertised, without regard to race, religion, sex or national origin.

Winchester 101 skeet gun, 20 ga. beautiful, unfired in box, \$600. Handley x2271 or 482-7041 after 5:30.

Wards 5 hp lawn vacuum and mulcher, exc cond, new \$485, sell \$75. Aster 946-1965 after 5.

Family membership Bay Area Racquet Club, half price. 488-0506 after 1 p.m.

Floor model belt reducing vibrator, very good cond, \$30. 482-7073.

Tennis membership to Bay Area Racquet Club, cost \$300 will sell for \$200. Cottle x5871.

SwapShop is a free service to on site NASA and contractor employees. Limited space requires we limit ads to 20 words maximum, one ad per person. Type or print and double space copy on a full sheet of paper. Ads that do not follow these guidelines may not appear in SwapShop.

Shelby mag wheels (4) 14" x 6.5, 2 with like new G-60 tires, 2 without tires, fits Ford or Chrysler products, \$200. 334-1303 after 5.

3 chrome basket wheels with tires, 15" x 6, fits Pontiac, \$20 each or offer. 334-1303 after 5.

New tire Goodyear 8.50 x 14, cost \$56 sell \$25. 488-2259.

Two west coast type removable mirrors for trailer towing, \$14. 944-8238.

Pure local honey in pints \$1.65, quarts \$2.75, gallons \$10. Ward x4976.

Railroad ties 9" x 7" x 8 ft, \$6 each. x3066 or 944-6133 after 6.

1917 Enfield rifle with bayonet (all Remington mfg.), \$175; 1898 Kraig carbine, \$150; both unaltered, very good cond. Hadley x2271 or 482-7041 after 5:30.

Atlas 210X Ham XCVR w/mobile mount, noise blanker and power supply, \$550. x2437 or 481-1808.

Wanted

Wanted: Screened tent enclosure. Also, cheap underwater enclosure for a Minolta ST 202 SLR. Hard case or bag. Kennedy x4281 or 649-1236.

Wanted: Fiberglass/Aluminum and/or accessories, extras. Ed Stavinoxa x4281 or 331-1275 after 6.

Pets

AKC golden retrievers: mother, beautiful lap dog; father, hunter; males \$150, females \$125, ready May 3, choose now. 485-4426 after 6.

Lost & Found

Found: Set of several keys found in parking lot behind Cafeteria No. 1, on Texford Batteries key ring, may be claimed in room 153, Bldg. 4. x 4555.

Lost: Black female Doberman, in vicinity of NASA 1/EI Camino (Kroger parking lot), aprox April 7, answers to name of Annie, \$250 reward. Lil x2301 or 1-945-3627.

Boats & Planes

Gulf Coast 15 sloop-rigged sailboat with sails, trailer, 1.5 hp outboard, exc cond, new mast, rigging, and painting, \$2400. x2408 or 334-1448 after 6.

Canoe, 17 ft. class, \$200. 473-8242.

Outboard motor, Wards 7-1/2 hp, forward/neutral, integral tank/external connection, no salt water, under 30 hours, \$175. Erickson x3528 or 649-0396.

32' Trojan express twin, flybridge, sleeps 6, new marine electronics, 25 amp charger, \$12,500 home equity. Ed x 2216 or 334-1177.

75 Wellcraft 165 Airstar w/galv. littledude trailer, low hrs, I/O 140 merc, cruise, exc cond. 333-3901 after 5.

Property & Rentals

For Rent: Galveston Island Jamaica Beach cottage, summer reservations now, \$175/week or \$30/day. 334-1640 after 6.

Rent/Lease: Heritage Park, 3-2-2, separate dining room, fireplace, draped, patio, large fenced lot, immaculate throughout, \$450/month. 474-4991 or 474-3887.

Lot in extra nice subdivision, tennis, swimming, 36 holes golf, fresh and saltwater marina, priced below current rates. 485-1179.

Rent: Waterfront vacation retreat by marina at Cape Royale on Lake Livingston, New 3-bdrm, tennis, pool, golf, boat launch, by week. 488-3746.

Vacation Lake Livingston Cape Royale, a beautiful resort. Enjoy custom 3-2-1, complete home nestled among trees by the water, rent by wk/mo/yr. 488-4487.

Household Articles

Solid mahogany, beautifully carved historical fireplace mantel (from old Naval officers residence, Ballston Spa, NY). x5888 or 486-0419 after 5.

Beautiful antique oak china cabinet, one of a kind, perfect, \$850; mahogany drop leaf dining table, \$200. 488-5564.

Early American sofa on ball casters, \$95; swivel rocker and ottoman, \$45. 482-1630.

G.E. Built-in oven, coppersone, needs "bake" element. 471-0262 after 6.

Baby swingomatic with bed, \$25; students desk, \$10; banjo, \$25; wooden dog shipping crate, \$5. 944-4896 after 5.

Carpet, gold, 12' x 15', exc cond, \$65; also 11' x 13' for \$40. Ghetzler 333-4029.

Drapes, off-white, approx 7'1" x 11'4" and 7'1" x 5'1", both sets fully lined and in perfect cond, will sell for \$190 and \$90 respectively. Ghetzler 333-4029.

110 yds carpet, low shag, no stains or wear, \$250. 486-8119.

Going through the chamber before getting on the plane

Second in a series on Spacelab One

Story and photos by Kay Ebeling

"Hello, yes, I want to be a test subject on the Zero-G aircraft for a Roundup story."

"Okay. You'll have to go through some training, but we can get you on."

"Great. What kind of experiments are you running?"

"We're testing for space motion sickness."

"Oh."

"We bring you to the point of vomiting, but you won't vomit. Not likely."

"...Oh."

Before being a test subject for Mil Reschke's Hoffman Reflex experiment that will fly on Spacelab One, a person must get clearance from his or her boss, take an Air Force physical, and go through physiological training. (Reschke, by the way, says he currently has more volunteers than he needs.)

So in a few weeks I'm in a classroom in Building 41 where Kelsey Seybold's Larry Busch, Herb

Foss, Marvin Griffiths, Bill Maas, and Mike Fox are going to teach us how to survive should the KC-135A just keep heading for the ground during a parabola—what to do in the last 20 seconds before the cockpit lands in your lap.

"Today we are going to do a two-hour pressure flight in the high altitude chamber," Larry Busch comments off-hand warning that if you've had any aspirin or liquor in the last few hours (MY GOSH IT'S ONLY 10 IN THE MORNING!!) you shouldn't do the tests.

We get a cram course in atmospheric physics, respiration and gas transfer, how to recognize hypoxia, and no-matter-what-don't-hyper-ventilate. "Stay close to the burp bag," advises Herb Foss.

What is this? I want to be back in my office with FM coming through both speakers, writing Secretary of the Month stories. Too late.

7, who is next to me, is the first to take off his mask and I watch his eyes glaze over as his pencil scribbles across his questionnaire.

Voice from the controls outside: "How do you feel, Number 7?"

"Everything's starting to move slowly."

"What are you grinning about, Number 7? Number 7? Number 7?" He stares unmoving, and they rush a mask back onto his face.

"What happened?" he asks a few minutes later. "I didn't black out. I did not black out."

Then it's my turn. "How are you feeling, Number 2?"

... Oh, that's me. "Just great, fine, a little (giggle) dizzy, but I can (giggle, giggle) make it. I'm (uncontrollable laughter) perfectly under control."

Voice: "False sense of well-being. Keep filling out your form, Number 2."

Hmmm. Divide your age by three. My age... by three. Never was too

What is this? I want to be back in my office with FM on both speakers. . . . Too late.

We file out to the high altitude chamber. They're going to lower the oxygen level to the equivalent of 35,000 feet, then take off our gas masks so we can get familiar with hypoxia symptoms. Some people get air hunger, others tunnel vision, numbness, tingling, euphoria, dizziness—sounds like a party I was at last week.

I feel like a Rhesus monkey. We're suited up and masked inside a laboratory chamber; technicians peer in at us through portholes. I hold a questionnaire to fill out later. Number

good at Math. Oh no, these are getting tough: 44 minus 15. Struggle, calculate, numbers drift from my brain. Ah, here's an easy one. Sign your name. . .

What happened? There's a mask back on my face and everybody's looking at me grinning. I look at my questionnaire and half-way through my middle initial the pencil did three loops and slipped past the margin onto my pant leg.

"I did not black out. I swear I did



Learning the controls

not black out," I insist.

Back in the classroom next day, I'm interviewing the other students. They all want to be astronauts; all but the medical student co-op who wants to be a flight surgeon.

"I applied for the astronaut program once. I mean, that's why I'm here," says Dennis Beckman.

"I want to retire up there on one of those colonies," says Stokes McMillan. "All the new hires here are like space cadets. We grew up watching the Gemini missions."

"I want to see what Zero-G is like," says Dan Sedej.

We part company, and wait for Reschke to call.

Next: The experiment: How it is tested on the KC-135A and how it will be run on Spacelab.



Herb Foss teaches . . .



. . . and the students listen



Waiting for the test

Think Tank

You have 12 coins, one of which you know is counterfeit and does not weigh the same as a genuine coin; but you don't know whether it weighs more or less. Given a simple balance scale, determine in just three weighings which coin is counterfeit and whether it is heavier or lighter than a genuine coin.

(Speed weighs in determining winners for this puzzle.)

NOTE: TO THINK TANK FANS

Many complaints came in that our monkey/coconut solution was incomplete. Roundup regrets the error. Anyone interested in seeing the solution worked out step by step should contact AP3 Roundup or call the editor at x-5111, and leave your name and mail code. We

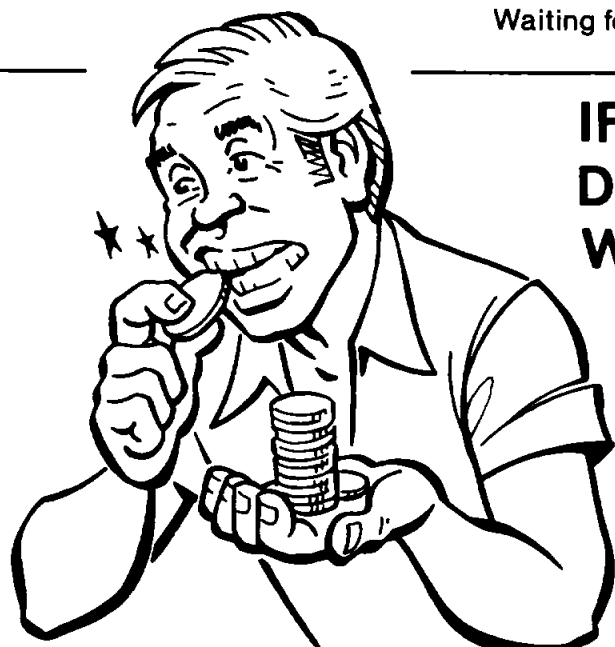
will send a copy of the solution in its entirety. Again, sorry for the error.

BUT THERE'S GOOD NEWS: PRIZES!

Anyone who has been recognized for a Think Tank solution can now come to the Roundup office and collect a prize. Current award is five copies of the March 23 Roundup, a collectors' item with photos of Jupiter's moons taken by Voyager.

If your name has been in bold print for a solution to a Think Tank puzzle, you qualify for this once-in-a-lifetime opportunity. Come by Room 147, Building 2 annex, and claim your reward.

There will be more and better prizes to come, so keep watching the Think Tank box.



IF THIS DOESN'T WORK...

Cartoon by Russ Byther

NASA-JSC