



ROUNDUP

NASA LYNDON B. JOHNSON SPACE CENTER

HOUSTON, TEXAS

VOL. 16 NO. 25

Friday, December 9, 1977



GOOD HEAVENS! — Lecturer Fred Kubesch is shown here demonstrating various space-related equipment for grade school students. Most of the students from kindergarten through college react to the demonstrations in a similar manner; one goal of the lecturer is to leave his audience wanting more.

Space education on wheels: We don't call them; they call us!

Just the other day, a nonaerospace professional asked a JSC employee, "Why do you guys waste money going to the Moon instead of just inventing a space suit for a little boy like that David — you know, the "bubble baby?"

Answered the employee: "the question, I think, is not 'Why don't

we just go out and invent a space suit for David?' but, rather, 'If there were no such thing as a Space Program, what would little David be doing in a space suit?'"

"Now why didn't I think of that?", we say to ourselves in similar situations. But no words come out and we are left disturbed — dis-

turbed first with ourselves for not having that snappy response, disturbed by an attitude that we, in the aerospace environment with constant exposure to tech utilization, cannot understand, and disturbed most of all about the future.

Will the next generation remember our contributions or will we be viewed simply as those who reacted to something that happened 20 years ago called "Sputnik?"

Certainly David will remember what the space program did for him, but who will demonstrate and explain the potential advantages of this new frontier to all the other little boys and girls throughout the country and, perhaps, the world?

While many of us are thinking gloomily along these lines, employees at JSC involved in the Aerospace Education Services Project (AESP) see the issue from quite another viewpoint — like when will the phone stop ringing with requests from representatives of schools and civic clubs to help them bring space-related information into their area. For what began as a tiny pilot project in the early sixties at Headquarters called "the Spacemobile" has mushroomed into a 22-unit nationwide program that must turn down more requests than it accepts.

At JSC, the first Spacemobile, now properly referred to as an "aerospace unit," worked out of an office set up at Ellington Air Force Base for teachers and civic leaders that wanted someone to come and talk about the space program to their group for just an hour or so.

So JSC got together with some people from Oklahoma State University and began a basically onsite program. By the late sixties, calls and letters were coming from all over requesting lecturers, materials, demonstrations, and most of all ex-

Continued on page 4

Physicians explain scope of astronaut applicant physicals

The medical evaluation for astronaut applicants includes four parts: medical history (illness, injuries, surgery, etc.); a thorough physical examination; specialty evaluations such as neurology, otorhinolaryngology, and ophthalmology; and special tests such as the treadmill test, the pulmonary function test, audiometry tests, and body chemistry examinations.

The flight surgeons of the Flight Medicine Clinic have been responsible for medical evaluations of the astronaut candidates at JSC. The major portion of these evaluations consist of a thorough medical history and physical examination. Specific studies of body functions such as vision, hearing, exercise capacity, and muscular strength are all important aspects of the overall health evaluation.



MUSCULOSKELETAL EVALUATION — A thorough musculoskeletal evaluation includes measures of strength and joint motion. Dr. Mike Berry, an aerospace medicine resident of Ohio State University, looks on as an astronaut applicant gets his arm strength measured.

JSC goes on inactive status during the holiday season

As most JSC employees are aware, the Center will be on a basically inactive status from 5 p.m. Dec. 23 to 7:30 a.m. Jan. 3 of the new year.

Employee leave plans will, however, be strictly voluntary. Those who opt to work those days for any reason will be given productive assignments by their supervisors and no administrative leave will be provided to support the closure.

Since the yearend holiday season is traditionally a period of low activity, an emphasis on energy conservation seems appropriate and it need not impose on major programs.

Therefore, only designated buildings will be environmentally controlled, and these areas will be the primary method of accommodating the work force.

Program-essential activities will be exempt from total closure, such as the visitor program, the change-over of the SAIL facility, and the assembly and installation of the Shuttle Procedures Simulator.

Similarly, essential support activities will continue, such as construction, janitorial services, food service

in building 3 cafeteria, site protection, and emergency medical service. For emergency service, call the Center Operations Directorate point of contact, Gus McCown, X-6421.

Most routine services will not be available during this period. For example, the photo lab, printing, and supply departments will be closed. There will be no taxi or bus service, no mail delivery, and no switchboard or central computing activities.

The Travel Office will be closed, too, so travelers departing around the closure period will require ticketing in advance.

Only the Second Avenue gate will be open, and suppliers, transportation firms, and interfacing organizations should be forewarned that JSC will not be open for business during the closure period.

Working hours will be from 8 a.m. to 4:30 p.m. Since one door of each principal building will remain open to enable relocated personnel to obtain necessary materials from their usual work areas, it is suggested that personal and "pilferable" items be secured.



TREADMILL TEST PREPARATION — The cardiopulmonary team, headed by Dr. R. L. Johnson, prepares an astronaut applicant for the treadmill test. This exercise test is used to evaluate the cardiopulmonary fitness as well as to screen the applicants for hidden cardiac disease. The team leader, Dr. Robert L. Johnson (not shown in picture) has been the chief cardiologist during several astronaut selections.

Conservation reminder

Just a reminder that NASA's energy conservation program requires that office space thermostats be set to maintain a maximum space temperature of 68° F. Area thermostats are currently being reset to comply with this requirement, and during the transitional weather season some localized hot and/or cold areas may be experienced.



Frost (30)



Presswood (30)



Stewart (30)



Folkes (30)



Sponseller (30)



Huss (30)



Petynia (30)



Schneider (30)



Ferguson (30)



Hanaway (30)



Frasher (30)



Kosinski (30)



Wilborn (30)



McQuain (35)



Guess (35)



Kister (35)



**SPECIAL
40-YEAR
AWARD**



Williams (40)

LENGTH OF SERVICE AWARDS — Center Director Christopher C. Kraft presented length of service awards to employees who had completed 25 or more years of service during the fourth quarter of the fiscal year 1977. Special recognition was given to Herman E. Williams who has completed 40 years of service. Williams was sent a letter of congratulations by NASA Administrator Robert A. Frosch. Williams began his career of Federal service in 1936 with the U.S. Army and has been with the Aircraft Operations

Division at JSC since 1967. The award recipients above are: Austin W. Frost, Clarence M. Presswood, Lester A. Stewart, William G. Folkes, Samuel H. Sponseller, Carl R. Huss, William W. Petynia, Charles C. Schneider, Richard B. Ferguson, John F. Hanaway, M. Meredith Frasher, Robert E. Kosinski, Elton A. Wilborn, Charles E. McQuain, Ellis B. Guess, Leon A. Kister, and Herman E. Williams. They completed 30 or 35 years of service. Some individuals, who are not pictured above, were unable to attend the ceremony.

Hymel takes on part of complex institutional procurement duties

Anyone who has ever become involved in the area of procurement knows just how complex and time-consuming the entire process can be.

Besides making the distinction between the procurement divisions themselves — Institutional and Program — there are the various branches and sections that make up the different aspects of procurement, from obtaining major flight-related items to grounds maintenance services. In any case, the procurement job doesn't sound like one for an intern right out of college.

"Generally, we start most of our interns in the small purchases area because that is where they can get basic procurement experience from the bottom up," says Paula Fyffe, Supervisory Administrative Specialist in the Institutional Procurement Division.

But occasionally, as in the case of Michael Hymel, a 1975 graduate of the University of Houston with a Masters Degree in Economics, interns will be assigned to other areas of procurement without benefit of a background in small purchases.



Michael Hymel

Hymel was assigned to the Technical Support Procurement Branch of the Institutional Procurement

Division in February 1977. His principal duties have been the negotiation and administration of grants and contracts in support of the Space and Life Sciences Directorate of JSC. The majority of his work is research and development (R&D) oriented with the principal interface being the university community.

The grants for which he is responsible are primarily for lunar sample analysis in support of NASA's Extraterrestrial Materials Research Program. The contracts deal with the area of Earth observation and involve research in remote sensing techniques and applications, particularly Landsat and LACIE.

The Institutional Procurement Division, headed by Division Chief, Parker L. Carroll, mainly supports the seven JSC Directorates. All support services, basic research grants, laboratory supplies and equipment, small purchases, architect-engineer services, construction, training, and automatic data processing equipment are procured here.

The Technical Support Procurement Branch works within this Division and carries Center responsibility for all NASA research grants and contracts for technical services and nonflight items. According to Donald B. Cherry, Branch Chief, the Branch spends about \$90 million a year.

Hymel has handled several university R&D grants and contracts during his relatively short career in the Branch. Recently, he negotiated a contract with the University of Kansas to further develop the capability to remotely identify agricultural crop type and condition by using active microwave methods to augment Landsat data. He also negotiated a contract with TRW to conduct a program of testing to determine the effects of rocket exhaust particles on orbiter surfaces.

Hymel points out that in his area most R&D work involving educational or nonprofit organizations is contracted for under grants rather

than contracts. That decision is, in fact, the first question that must be answered.

Procurements of this kind are initiated by JSC in either of two ways: solicited and unsolicited proposals.

Unsolicited requests, states Hymel, are usually addressed to NASA Headquarters or to a specific NASA installation stating that the requester would like to study a particular area. The requester would show results of some previous work they had done, explain why the study is relevant to NASA needs, and tell what goals they intend to achieve and how they intend to go about achieving them. An example of this type of proposal would be a recently proposed study on acidic rainfall from Texas A&M.

A proposed budget is enclosed by the requester and the package is forwarded to the appropriate technical people who decide whether or not the project is worth pursuing from NASA's (or the NASA installation's) standpoint. If the effort is found to be worthy of funding, someone in Hymel's position is then called upon to work out the details of negotiation and administration of the contract or grant. Hymel emphasizes that he never sees the proposal or any other information until the decision to fund is made.

Hymel then interfaces with government auditors, technical people, and the personnel from the institution in question to verify cost estimates, to make sure that the budget is reasonable, and to take into account such factors as labor costs and overhead.

The solicited proposal involves a request from NASA or a NASA facility for a specific task, service, or function. A statement of work is written — and Hymel has been involved from that end also — describing the job, the hardware, or the service to be performed. Often

Employees benefit from low-cost group insurance

The NASA Employees Benefit Association (NEBA) is an organization of NASA employees that offers LOW COST Group Life Insurance and Group Travel Accident Life Insurance. It started 27 years ago at what is now the Lewis Research Center, and has chapters at each NASA installation.

What do the NEBA Insurance Plans do?

They GUARANTEE MONEY for your family when most needed.

The Group Life Insurance Plan offers coverage for the employee, spouse and children (under 19 years). The employee's coverage is based on salary; the spouse coverage is either \$5,000 or \$10,000 based on employee's salary and each child is covered for \$2,000. The coverage for spouse and children is optional.

The Group Life Insurance Plan is virtually "self insured" in that NEBA members participated in all of the benefits of good experience (low claims, maximum return on reserves, etc.) and limited liability. This is the basis for the continued low costs.

In addition to the low cost, Frank Parker, Secretary-Treasurer of the JSC Chapter, emphasized these points: DOUBLE INDEMNITY in case of accidental death (employees only); DISMEMBERMENT for loss of an eye, hand, or foot (employees only); GUARANTEED CONVERSION privileges for members and dependents; eligibility for new employees in the Group Life Plan when reporting for duty. NEBA PAYS THE FIRST QUARTER'S PREMIUM for all new employees enrolled.

The Group Travel Accident Life Insurance Plan offers coverage for employee or employee and spouse. Four separate plans with three amounts of coverage under each are offered.

Group Life premiums are collected quarterly. Group Travel Accident Life premiums are collected annually.

Eligible employees may join either plan at any time. For additional information or application forms call extension 2681 or 5410. BE SURE - INSURE.



NEW BOSS OF THE YEAR — William E. (Gene) Rice, Acting Manager of the Earth Resources Program at JSC was selected Boss of the Year by the NASA Clear Lake Chapter of the National Secretaries Association (International). The announcement was made at the recent Executive Night Dinner. Candidates for this award are nominated by chapter members and submitted to a panel of impartial judges along with information about the nominees' education; participation in civic, church, and professional activities; achievements and awards; business experience; and personal comments. His secretary, Estella H. Gillette is shown proudly presenting the award to Rice.

WEEK OF DEC. 12 — DEC. 16

MONDAY: Cream of Celery Soup; Braised Beef Ribs; Chicken a la King; Enchiladas w/chili; Italian Cutlet (Special); Brussel Sprouts, Navy Beans. Selection of Salads, Sandwiches, & Pies Daily.

TUESDAY: Beef & Barley Soup; Turkey & Dressing; Country Style Steak; Beef Ravioli; Stuffed Cabbage (Special); Corn Cobette, Okra & Tomatoes, French Beans.

WEDNESDAY: Catfish w/hush puppies; Seafood Gumbo; Roast Pork w/dressing; 8-oz. T-Bone Steak; BBQ Plate; Chinese Pepper Steak (Special); Broccoli, Macaroni w/cheese, Stewed Tomatoes.

THURSDAY: Cream of Tomato Soup; Beef Tacos; BBQ Ham Slice; Hungarian Goulash; Chicken Fried Steak (Special); Spinach, Pinto Beans, Beets.

FRIDAY: Seafood Gumbo; Liver w/ onions; Deviled Crabs; Roast Beef w/ dressing; Seafood Platter; Tuna & Noodle Casserole (Special); Whipped Potatoes, Peas, Cauliflower.

WEEK OF DEC. 19 — DEC. 23

MONDAY: French Onion Soup; Beef Chop Suey; Polish Sausage; German Potato Salad; Breaded Veal Cutlet (Special); Okra & Tomatoes, Green Peas. Selection of Salads, Sandwiches, & Pies Daily.

TUESDAY: Vegetable Soup; Baked Ham w/cherry glaze; chopped sirloin; deviled crabs. SPECIAL: Ambrosia salad, turkey w/cornbread dressing, giblet gravy, cranberry sauce, beans almondine, candied yams w/marshmallow, roll & butter, beverage — all for \$1.50!

WEDNESDAY: Vegetable Soup; 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.

Continued on page 3

Procurement...

Continued from page 2

it is difficult to explain all the details required in a particular task. It is the job of the prospective firm to find the best approach and budget to get the task done. That is why competitive bidding is encouraged so that various approaches can be evaluated.

Cherry and Deputy Chief of the Branch, Robert C. Liounis, are very proud of Hymel's outstanding performance and ability to act as spokesman for the Center with the contractor. He has not only caught on quickly to the technicalities and inevitable delays of his own job, but he can explain the difficult distinctions and overlaps that occur between procurement areas.

For example, as opposed to Institutional Procurement, the Program Procurement Division deals generally with spaceflight systems, major programs, and associated ground systems. The R&D may overlap in some instances. Since the contractor-to-civil-servant ratio is roughly 2 to 1 on the side of the contractor, responsibility for administering a contract becomes great in terms of cost and efficiency.

"If a competitive procurement is estimated at more than a million dollars," says Hymel, "then you have a very specialized selection process called a Source Evaluation Board that works together in evaluating sources and may take as long as 18 months."

In fact, Hymel's most complex assignment to date has been connected with his recent nomination as Secretary to a Source Evaluation Board for a major procurement in support of the Space and Life Sciences Directorate.

EXTRA EXTRA!

Don't let that Cost Reduction go unreported!



Report the results on JSC Form 1150, to BH-4, Cost Reduction Office

Bush appointed Chief of LSPD

William H. Bush, Jr., last week was appointed chief of the Life Science Project Division (LSPD) and William J. Huffstetler was named deputy. The division was formed from the Life Sciences Experiments Division formerly headed by John C. Stonesifer. Stonesifer recently was named to head the new Life Sciences Experiments Program Office. (See November 11 Roundup.)

The LSPD responsibilities include development and integration of Space Shuttle life sciences experiments and simulations of experiments for Shuttle payloads and for space stations.

Additionally, the division is charged with spacecraft life support, food and water, crew safety, and waste management systems development.



LARGE TURNOUT FOR CHRISTMAS DANCE -- Christmas filled the air Friday and Saturday nights at the Gilruth Center, where this year's dances were held. This is just one of the many common scenes of the band, the tree, and people decked out in formal attire for the occasion.

Roundup Swap Shop

Swap Shop advertising is open to JSC federal and on-site contractor employees. Goods or services must be offered as advertised, without regard to race, religion, sex or national origin. Non-commercial personal ads should be 20 words or less, and include home telephone number. Typed or scribbled ad copy must be received by AP3/Roundup by Wednesday of the week prior to publication.

CARS & TRUCKS

77 Chevy Pickup, C-10 Cheyenne, 14K mi, 2-tone paint, pwr steer & brakes, A/C, perfect cond. \$4,955 firm. Owner bought new 78. 332-2291.

74 Cougar XR7. White, all electric, all leather blue interior, auto, 351 V-8, pwr steer & brakes, A/C, AM-FM, cruise control, 52K mi. \$3,200 or best offer. 499-2527 or 643-3655 or Gibbons, X-4528.

71 Chevy Pickup. 3/4-ton, pwr steer & brakes, auto, A/C. \$2,000. AI, X-5543 or 333-2397 after 5 p.m.

46 4WD Jeep. Xlnt motor, good tires, needs paint, registered 1977. \$800. 472-4456 after 5 p.m. or weekends.

73 Montego MX Brougham. Xlnt cond. \$2,195. 488-7566 or 479-4300.

76 Honda CVCC wgn. \$2,995. 471-4387.

76 Olds Cutlas Salon. 2-dr, V-8 350, bucket seats, velour upholstery, AM-FM w/ cassette, tilt steer, A/C, pwr steer & brakes, 22K mi. \$4,900. Rockford, X-2805 or 649-5768.

74 Datsun Pickup. Orange, custom stripe, Western rims, wide wheels, good tires, runs well. \$1,850. Cliff, X-4582 or 488-0286.

72 Dodge Polara SW. 400 engine, auto, pwr steer & brakes. \$2,000. AI, X-5543 or 333-2397.

69 Imperial La Baron. 2-dr HT, A/C, pwr steer, disk brakes, tilt & telescoping wheel, stereo w/ tape, 6-way seat, radio, everything works, low mileage, xlnt cond. 333-2974.

74 Olds Custom Cruiser wgn. Xlnt cond, extras inc. trailer hitch, load level shocks, cruise control. \$2,300. 333-3897.

72 Ford Galaxy 500. 2-dr HT, V-8, auto, pwr steer & brakes, A/C, radio, good cond. \$1,200. Robinson, X-3918 or 482-6021.

70 Chrysler Town & Country 9-passenger wgn. Engine 2 yrs old, pwr steer & brakes, A/C, good cond. Make reasonable offer. Newlander, X-3445 or 482-2119.

61 Ford Falcon. 4-dr, many new parts less than 10 yrs old, faded baby blue, radio, buzzing turn signal, good tires, valid inspection sticker, owner reluctantly sacrificing because of social pressures. \$172.69 or best offer. McLane, 488-0312 after 6 p.m.

75 Monte Carlo. One owner, xlnt cond. Sheptock, X-3281 or 938-7019.

72 Ford Country Sedan wgn. A/C, auto, pwr steer & brakes, low mileage, steel radials, good cond. \$1,100. 944-3640.

HOUSEHOLD ARTICLES

Early American couch. Wing back, fair cond. \$75. Also antique country oak wash stand. \$75. 488-4487.

Large (3' diam) black wrought iron Spanish style chandelier w/ 8 amber globes. Plauche, X-6128 or 474-2660.

2 Spanish Captain's chairs, black & gold upholstered, very nice, \$25 each. Plauche, X-6128.

Antique tall carved red velvet chair, \$250; lg oval wicker table, \$125; turn-of-the-century Spanish library table w/ bench, \$450. 488-5564.

GE Potscrubber dishwasher. 11 mos. old, moved, must sell. 477-9546 after 5 Wed - Fri or weekends.

Dining room set, \$425; antique child's desk, \$75; living room chair, \$20; bathroom vanity, \$35; 3 Early American chairs, \$75. 479-8752.

Spanish dinette w/ 4 swivel red upholstered chairs; one xtra leaf; xlnt cond. \$150. Walker, X-4788 or 488-0845 after 5 p.m.

CYCLES

2 bicycles. CTOH, men's 27" wheels, 10-speed, need some repair. \$50. Brenton, X-2731.

MUSICAL INSTRUMENTS

Organ: Twin keyboard Baldwin in walnut w/ bench, xlnt cond. \$495. Cooper, X-6161 or 333-5883.

Good used drum set f/ band student f/ Xmas present. Judy, X-3181 or 534-3785 after 6.

STEREOS & CAMERAS

Sears camera/telescope tripod. \$20. Lake, X-5271 or 523-2137.

Stereo: Sony STR-6036A. AM-FM stereo receiver. \$100. Lake, X-5271 or 523-2137.

PROPERTY & RENTALS

Lease: brand new home in Middlebrook, 3-2-2, custom decorated, color coordinated in shades of green, unfurn. Last block in development so you can look out on pretty green field instead of houses. Will be ready by late Dec. 488-7232 after 5:30 p.m. or weekends.

Sale: executive estate in one of Friendswood's most desirable areas. 4-2-3 1/2, formal living & dining, kitchen eating area, family room, game room, lg patio partly covered w/ barbecue pit, swimming pool, enclosed dressing area w/ 1/2-bath, 22 X 30 barn w/ feed & tack rooms, fenced corral, many other extras. 3600 sq. ft. on over 2 acres. 482-2119 f/ appt.

Property sale: 24 acres, Big Bend, hunting rights to 25,000 acres, deer & quail. \$3,100 or equity & take up payments at 7%. 472-4456 after 5 p.m. or weekends.

Rent: lg double stall & tack room. One-acre pasture, near Friendswood High School. 482-4239.

Rent: Duplex, adults, 2 bdrm, 2 bath, equipped kitchen, utility room, walk-in pantry & closets, 2-car garage, fenced yard, no pets. Patterson, 471-4419 after 6.

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

Lease: Wedgewood home, 3-2-2, fireplace, spacious, immaculate, no pets, avail now. \$385/mo. 474-4769.

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.

PETS

Collie puppies, unregistered. 6 wks old, free. Arndt, X-5973 or 482-3989.

Boxer puppies, AKC, all fawn male & female. Ready f/ Xmas. Make your deposit now. \$125 - \$150. Also poodle puppies, AKC, dark apricot toy male & female. \$150. 334-2294.

Bay mare. 7 yrs old, xlnt health, very gentle, loves children. Tack included. 482-4239.

MUSICAL INSTRUMENTS

Organ: Twin keyboard Baldwin in walnut w/ bench, xlnt cond. \$495. Cooper, X-6161 or 333-5883.

Good used drum set f/ band student f/ Xmas present. Judy, X-3181 or 534-3785 after 6.

WANTED

Need ride from CLC behind intermediate school to Bldg. 5, 7:30-4:00. Unable to drive. Weekly rates. Abadie, X-2051 or 488-1682.

One person to join carpool w/ 4 others. Carpool leaves Meyerland Shopping Center at 7:15 a.m. f/ the 8-4:30 shift. Call Carl, X-4871, Cathey, X-6387, or Russ, X-4871.

Need new members f/ Baycliff Bass Club. Anyone welcome: meetings, tournaments, prizes. Parker, X-4241 or Mobjley, X-4428 for info.

Need riders for carpool from W Loop, SW Fwy. Bellair area, 8-4:30. McLoughlin, X-5536 or 661-2974.

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.

Texas veteran w/ papers to buy land in Crockett area. Know of several nice tracts we could buy/split jointly at good price. Olszewski, X-3534.

MISCELLANEOUS

Squash blossom necklace, mother of pearl. Sheptock, X-3281 or 938-7019.

Projector. 8mm Keystone. \$25. Also mirrors, West Coast type truck, \$25/set. 941-5179 after 6.

4 wheels from Toyota pickup, \$7 ea or all f/ \$20. Also 4 hubcaps. 333-3071.

Tandem trailer suitable f/ hauling car or tractor. Lights, elec. brakes, spare tire. \$625. 482-4874 after 5 p.m.

6.5mm Carcan Italian carbine. Good f/ brush hunting or gun collection. Best offer. Jimmy, X-2961 or 554-2442.

Regulation size (4 x 8) pool table complete with four cues and cue stand. Composition board base with leveling adjustments. Good condition. \$125. Ed, X-3458 or 332-3709

2 tickets to Neil Diamond's show at the Summit Dec. 15. 488-4412.

Shop manuals f/ 1972 Buick, \$10. Fisher, X-4488 or 331-3954.

Locking gas cap f/ 72 Ford Ltd. \$150 or best offer. 333-3690.

Gooseneck trailer. 16' utility bed, 7000 lb. gross, elec. brakes. \$850. Bailey, X-4211 or 337-2855.

Oak firewood, \$100 cord delivered. 332-3338 after 5 p.m.

Lg swing set: 2" galvanized pipe, 2 swings, rings, bar, ladder, seesaw. \$100. Nolin, X-5223 or 487-3294 after 5.

Paint spray set: 1/4HP air compressor (30 psi) & spray gun. \$30. Smith, X-4564.

New Mauser Mark X. Cal 270 w/ adj trigger. \$160. Several pistols and Browning auto shotguns. 488-1846 evenings.

EAA ATTRACTIONS

TICKETS

HOUSTON AERO HOCKEY

The following tickets are available at the Bldg. 11 Exchange Store from 10 a.m.-2 p.m. Monday - Friday.

Houston Aero Hockey tickets are on sale at the special rates of \$6.50 and \$4.00 through EAA. They are regularly priced at \$8.50 and \$5.50.

Dean Goss Dinner Theater - The comedy play "Murder-ground" is now featured at the Dean Goss Dinner Theater. Tickets are now being sold for \$16 per couple or \$8 per person.

Houston Aeros gift cards will be sold in Bldg. 11 to EAA members, who in turn may exchange them at the Aero's Box Office in the Summit for regularly scheduled home games this 77-78 season.

Disney Magic Kingdom Club - Free membership cards.

Upcoming home games are with Birmingham Dec. 13, Czechoslovakia National Dec. 16, Edmonton Dec. 20, and Winnipeg Dec. 21.

Christmas project is underway

The Christmas season is upon us again: that special time of year that emphasizes love, peace on earth, and good will toward men.

Committees began Dec. 5 to select the families and so forth.

However, because many low-income families throughout the Houston area will not be able to share this joyous occasion without some assistance, a dedicated group of JSC and contractor employees headed by Julius T. Mayhorn will again sponsor the Family Affair Christmas Project - an annual fund-raising campaign to assist needy families.

"Although a lot of hard work goes into the project, it is not just the amount of money raised or the meeting of deadlines that counts," says Mayhorn, "but rather the happy expression on even one child's face that makes it all worth the effort."

Anyone who would like to donate their time to the physical aspect of the project or to make monetary donations should contact Mayhorn at X-3381 by Dec. 13.

ROUNDUP

NASA LYNDON B. JOHNSON SPACE CENTER

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.

Editor: Beverly Eakman

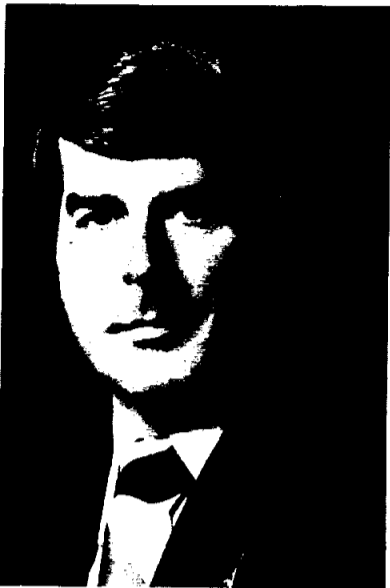
Photographer: A. "Pat" Patnesky

Space education on wheels - we don't call them; they call us!

(Continued from page 1)

planations that would reach the level of the average student.

Today, there are four lecturers who are members of the University of California at Chico representing JSC. James D. Poindexter, who was



James D. Poindexter

a lecturer with the project from 1966 to 1975 is now head of the JSC education program of which AESP is a part. He monitors the lecturers occasionally, keeps them abreast of new developments and materials, and acts as the interface between Chico and JSC and between JSC and those organizations and state departments that request aerospace education services.

The lecturers themselves are, of course, screened, have varied and impressive backgrounds of educational and aerospace-related experience, and go to Washington D. C. for their initial orientation and training.

But the most important qualification in this case is not how many degrees you hold or even your ability to captivate audiences. The magic ingredient is dedication — the kind of dedication that doesn't get upset stuck in a blizzard hundreds of miles away from home; the kind of dedication that hauls around 90 pounds of equipment at a time by hand regardless of the weather; and the kind of dedication that gives in to that last-minute request from an impressed teacher, principal, or parent to go speak again to a civic group in the evening without any supper or on Saturday when it would be nice to go home.

"It doesn't really matter to anybody else which way one of our guys wants to play it, whether he



Thomas J. Hill

puts in an 8- or an 18-hour day," declares lecturer/coordinator Thomas J. Hill. "It's all the same:

\$32 per diem for travel expenses beyond your 50-mile home base radius, not including the gas! It doesn't matter whether you have a flat tire, got stuck in the mud, or had to drive for miles in a blizzard. There are no awards, no prizes, no pretty plaques, no special compensations. But there might be a letter from a little third grader when you get home asking when you can come back."

Hill has a philosophy about dedication that probably is not shared by someone who isn't really "hung up" on an idea. Hill says all the lecturers, at JSC and at other Centers he has seen, have the kind of enthusiasm that spreads first to the teachers, from the teachers to the students, from the students to their parents, and from their parents to the organizations they belong to.

"There are people who think that NASA should be more involved in PR, that NASA should be selling themselves. I don't think so. The Space Program sells itself, and that's the way it should be, really. If you NEED PR, you're in trouble."

Hill laughs about the numbers of teachers from the various schools they have visited who call or write in to see how they can become lecturers, too.

Joy Higham, Administrative Assistant of the JSC project, says she sends them an application. "In fact, we have one lecturer — Sister Clarice, a nun, — working out of



George Johnson

Ames that totes those 90-pound telemetry units and does her stuff just like any of the men!"



GETTING INVOLVED — Lecturers always try to directly involve the students in their demonstrations as shown in photograph.



IN SERVICE AND MINIWORKSHOPS — Teachers here at the Center study Landsat displays and learn how to work the information into their own subject areas. These workshops may last from a couple of hours to a full day, depending usually upon the time of year.

Hill's home base is considered JSC, so his travel has been limited mainly to help in the overwhelming coordinating duties and to take care of the large-volume onsite program that is often booked three months in advance. Even so, he is living proof of his own philosophy of dedication. For example, Saturday, Nov. 5, he spoke to 100 cadets in Galveston about Shuttle, Viking, Space Settlements, and Voyager. At 6:30 p.m. Nov. 7, he addressed the Key Club, and on Saturday, Nov. 19, he drove to Lamar University in Beaumont to speak to a group there.

George Johnson lectures for JSC out of his home base, Colorado Springs. This means that his work involves a lot of travel, but he must keep his per diem expenses within the Headquarters budget so that he can go on a big program in New Mexico later or get through South Dakota before the snows come.

The AESP program is large and complex. It covers an eight-state area and can be thought of in terms of four basic categories: the onsite or local program, the field program, the workshop, and the community involvement program.

The onsite programs are basic demonstration-lectures that last one hour and are open to all those school groups that can get to JSC by 10 a.m. Sometimes these groups hear from an astronaut who has a spare half hour or so, or one of the tour guides may help in demonstrations.

The field program is the one that involves travel — to schools, civic organizations, and other groups — within or outside the bounds of the home base area. Most schools are scheduled through the state departments, but not necessarily. The large volume of requests cause the multicorrespondence involved with going through the state departments to become confused. Schedules may conflict and coordinating efforts become difficult. Many schools and groups just in the Houston area are on a long waiting list, and apparently the state departments are having the same problem.



John R. Donaldson

John R. Donaldson and Fred J. Kubesch are the two other lecturers involved in a considerable amount of field work. Itineraries are sent to the men from JSC and usually begin around 9 a.m. The men rarely stay in one city longer than a day, but then there are those special requests from enthusiastic groups to go into a classroom or speak to another group that evening. "It's hard to turn people down right after you've got them all enthused," says Hill.

It is interesting, too, that the lecturers have compiled a book over the years that covers every conceivable area of discussion, relates it to aerospace, gives simple but detailed instructions on demonstrations and activities, and includes an approach for every audience.

Then there are several different kinds of workshops — from small

miniworkshops for inservice teachers who may come to the Center and spend a day learning how to apply various aspects of aerospace to their classes or a full-fledged cosponsored project involving the Civil Air Patrol, a college or university, and JSC. The Civil Air Patrol arranges an airlift to fly teachers either to JSC or, in the case of Houston area teachers receiving credit through the University of Houston, to fly the lecturer and teachers to visit other centers. The teachers don't just get a grand tour, though. They have to really put forth some effort themselves, learn to do some classroom demonstrations, and prepare lesson plans for their respective universities at the end of the workshop that shows they can really use the material and new concepts in their classrooms.

The most grueling, but often the most rewarding, effort is the community involvement program which usually occurs only a couple times each year. It is initiated at the request of a dignitary of some town or city, such as the mayor, and entails what amounts to a formal "sweep" of the city.

The request usually says something to the effect that the town is planning a Space Awareness Week, and that it will possibly have exhibits, posters, shopping mall presentations, parades, speakers, and interviews by newspapers and television. A lot is provided by the town itself, but lecture-demonstrations; classroom visits; evening workshops for teachers; speakers for civic clubs, universities, PTA's, and senior citizens groups; radio interviews; and talk shows generally involve the four lecturers.

All the lecturers go together, as well as Poindexter and an astronaut. There is usually an official banquet or luncheon, a rap session, and a press conference. Publications, lists of available films and other literature are distributed to the schools. Night and day for a week or more, the lecturers go from one group to another, load and unload equipment, and change their approaches or their subject with the type of audience.

Enthusiasm begets enthusiasm, and that has been the case with the on-site AESP, which has grown 350% in the last three years.

Says Hill: "I'm convinced that derogatory comments made about the space program are only the results of ignorance and mystery, not malice. And we have to remember, too, that the space effort isn't something you can explain to people in one sentence. But once people have some real exposure to aerospace science — at their own level — then they feel altogether different about the program almost invariably."

Hill displayed several drawers full of letters of praise and applause, like the one from the Dallas Independent School District that said: "... you sent teachers away hungry — they wanted more!"

"Naw," he repeats, "you don't have to sell or justify anything about the space program. All you have to do is let them see it!"