# at MSC

May 11 - 13

# Shuttle Meeting

NASA MANNED SPACECRAFT CENTER

HOUSTON, TEXAS



Safety Conference at Goddard May 26 - 28

VOL. 10 NO. 12

APRIL 23, 1971



## Been wondering about Space benefits?

Wonder no more.

Instead, take perhaps ten minutes of a lunch break one day to wander into the exhibit area of the Building 1 Auditorium. You may wonder why you should wander to that spot. But the picture has probably already answered the question.

In case it hasn't, please note that there is a brand new exhibit on display in the Auditorium, one that stresses the benefits resulting from research within the U.S. space program.

Cylindrical compartments with

comfortably cushioned seats are perched atop a large round platform. Each compartment is connected to an elaborate tape-playback system that sends different messages to each listener.

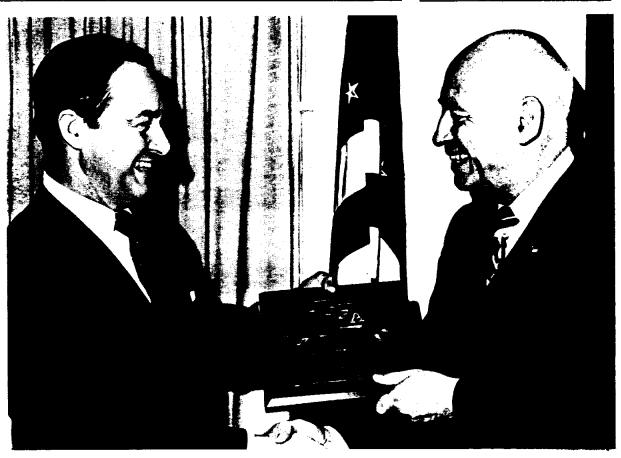
The messages are directed toward people of many different interests. There are compartments which tell of specific space benefits for teachers, doctors, geologists (called "rock hounds"), and athletes. There is a compartment especially for women, but not one for men only (??). One message

(See BENEFITS, Page 4)





MILITARY VISITORS—(top photo) General William C. Westmoreland, Chief of Staff, U.S. Army, listens as Astronaut James Lovell explains the composition of a solar wind experiment. In the bottom photo (I. to r.), Major General Felix A. Davis (USAR), Major General Wesley C. Franklin, and George W. S. Abbey, Technical Assistant to the Director of MSC, discuss features of the lunar module.



NFPA AWARD—MSC Director Dr. Robert R. Gilruth (right) accepts on behalf of MSC the 1970 Grand Award in the Governmental Division of the National Fire Protection Association (NFPA) Fire Prevention Contest. Presenting the award is Charles S. Morgan, General Manager of the NFPA. The presentation ceremony took place in Washington, D.C. on April 7. MSC's entry was one of over 800 entered in the Governmental Division of the contest, which includes government agencies in both the United States and Canada. The NFPA sponsors the Fire Prevention Contest annually. MSC received an Honorable Mention Award in the 1969 competion.

## Center cooperates in GSA effort to reduce vehicle exhaust pollution

Thirty-two Federal Government vehicles based at the General Services Administration's (GSA) motor pool at MSC and powered by a unique system called "dualfuel" were put into operation by the GSA on April 14. The vehicles include 29 light trucks and three sedans.

The vehicle exhaust emission experiment, designed to give GSA experience and information on low-polluting fuels, was introduced during a ceremony in front of the Federal Office Building at 515 Rusk Street in Houston.

The main speaker was Representative Bill Archer of Texas' Seventh District, Joseph V. Piland, MSC's Director of Center Operations, and Hart Mankin, general counsel of GSA, also took part in the ceremony.

The test vehicles are equipped with high pressure tanks containing compressed natural gas. They can run on that fuel, with a driving range of approximately 70 miles, or on regular gasoline. They can be converted easily to regular gasoline by throwing a switch and pulling a simple mechanical device on the dashboard.

Last month GSA Administrator Robert L. Kunzig reported that two independent consultants' evaluation of the agency's first dualfuel experiment confirmed the belief that the system can lead to dramatic reduction in vehicle exhaust pollution.

The consultants' evaluation was based on the first year of operation of 12 GSA dual-fuel vehicles in Los Angeles. It showed that, when the vehicles ran on compressed natural gas, there were reductions of 82 percent in hydrocarbons, 87 percent in carbon monoxide and 53 percent in nitrogen oxides. They are the three chief pollutants from the internal combustion engine.

GSA hopes to demonstrate that the dual-fuel system is practical for short range fleet operations. It has been estimated that in Los Angeles, for example, fleet vehicles such as taxis and delivery trucks contribute 35 percent of the vehicle pollution in the city. If they were converted to dual-fuel, there would be a sharp reduction in vehicle pollution.

Accordingly, GSA plans to aid the nation's private and local government fleet operators by making available conversion and inspection manuals and driver training information. The agency will also offer to share its natural gas refueling facilities with local government operators.

Since GSA began the test in Los Angeles in October 1969, it has converted 384 more vehicles (including the 32 here) to the system, with an additional 498 scheduled for conversion by June 1. Then, with that project completely underway, the agency will accelerate its experiments with other clean-burning fuels.

The natural gas for the test here is stored in a converted helium container donated by MSC. It was re-engineered and safetytested for its new use. The gas is being supplied by the United Gas Company of Houston.

GSA Administrator Kunzig stated, "Our experiment in Los Angeles (and now in Houston) is only a beginning. We intend to explore any feasible type of fuel that will, as President Nixon has said, once more make clean air an American birthright.'

### Apollo 14 Booklet Now Available

A new NASA educational publication, "Apollo 14: Science at Fra Mauro," (NASA EP-91) is now on sale at the U.S. Government Printing Office in Washington, D.C. at a price of \$1.25 per

The 10,000-word booklet tells the story of the third manned lunar landing mission of Astronauts Alan Shepard, Jr., Edgar Mitchell, and Stuart Roosa, January 31 through February 9, 1971. Of its 58 photographs, 42 are in color and include many taken at or near the Fra Mauro landing site during the Moon walks.

The publication was produced by the NASA Office of Public (See APOLLO, Page 2)



CLEVER INVENTORS AND SUGGESTORS—invention and Suggestion Awards were recently presented to a group of nineteen MSC employees. The awards ranged from \$25 to \$500, with the top sum going to Anthony S. Girala of the Spacecraft Design Office. Seated in the picture are (l. to r.) Joseph J. Kosmo, Jack Naimer, Norma L. Scott, Burrell O. French, and William P. Dotson, Jr. Standing (l. to r.) are Leo G. Monford, Jr., William C. Huber, Joseph A. Chandler, T. Marshall Wilkes, James E. Bodmer, Clarence J. Wesselski, Anthony S. Girala, Caldwell Johnson, William H. Keathley, and Thomas M. Grubbs. Missing from the picture are David Bell, Elton M. Tucker, Joe L. Day, and Paul O. Ferguson.

### Fireproofing methods to be used on NASA Gulfstreams

Four turboprop aircraft used by NASA for commuting between field centers will be refurbished at MSC with the latest nonflammable and fire resistant fabrics and coatings. Work will begin in mid-summer.

The new materials were developed for use in manned spacecraft by MSC engineers working hand-in-hand with private industry. Curtains, seat upholstery, carpets and headliner panels will be replaced with such materials as Fluorel-coated durette, fiberglass, Proban-treated fabrics, and Fluorel-coated Nomex.

The twin-engine Grumman Gulfstreams will be flown to MSC from their home bases at Langley Research Center, Marshall Space Flight Center, and Kennedy Space Center. The fourth Gulfstream is based at MSC.

The nonflammable and fireresistant materials were developed for use in manned spacecraft interiors where a 100-percent oxygen atmosphere increases the hazard of fire. Other potential uses for the new fabrics and coatings are under development at MSC and include residential and commercial building interiors and special-purpose garments such as firefighters' clothing and hospital gowns.

## Center aids Texas Tektite planners

The Texas Tektite Program, proposed to augment state and Federal ocean science programs, is receiving the assistance of a number of MSC organizations in its planning efforts.

James L. Tomberlin of the Engineering and Development Directorate is the coordinator for MSC support to Texas Tektite. Individuals in the Flight Operations Directorate have provided technical support. Later next month there will be a survey mission into the Gulf of Mexico to explore the area proposed by Tektite planners for development. MSC's Earth Observations aircraft will take part in the survey mission.

The name Tektite was adopted from the Department of Interior's

1969-70 Caribbean project of the same name. The purpose of that project was to study "saturation habitation," or the effects on test subjects of living underwater for extended periods of time. This is also a goal of the Texas Tektite project.

The word "tektite" is actually a geological term for rounded black or greenish glassy objects of possible extraterrestrial origin. How this relates to the undersea projects is open to conjecture.

The planners for Texas Tektite hope to build a facility 108 miles southeast of Galveston in the Flower Garden Reef of the Gulf of Mexico. The facility will include a large stable platform with a dormitory for visiting scientists



HOMETOWN HERO—Astronaut Stuart Roosa, the Command Module Pilot for Apollo 14, and his wife Joan were honored recently by the city of Claremore, Oklahoma, Roosa's hometown. Another famous Claremore native was the late humorist, Will Rogers.

## Sea-Arama tickets Made Available

The month of May has been declared "MSC Month" at Sea-Arama Marine World in Galveston

The entertaining and educational marine facility is offering special price tickets to MSC employees and their families: \$1.50 for adults and \$1.00 for children.

Tickets went on sale April 19 and are still available from your Employees Activities Association representatives.

See you at Sea-Arama?

and investigators and will also have space for portable laboratories. An underwater saturation-diving habitat will be situated on the reef beneath the platform at a depth of approximately 80 feet.

On shore in Galveston there will be maintenance and ware-house facilities, a Marine Study Center, and a marine animal research operation.

The Marine Biomedical Institute, an organization located in Galveston and composed of elements of the University of Texas and Texas A & M University systems, has sponsored studies of the project thus far.

Take stock in America Buy U.S. Savings Bonds



John Jackson (left) of the Harris County Center for the Retarded, presents H. Mervin Hughes of the Personnel Division with a certificate of appreciation for MSC's efforts in employing the handicapped.

## MSC praised for hiring handicapped

The Manned Spacecraft Center recently received from the National Association for Retarded Children a certificate of appreciation for MSC's work in hiring the mentally retarded.

The certificate reads in part, "in grateful recognition for extending equal opportunity personnel policies to include mentally handicap-

#### Apollo 14 Booklet

(Continued from page 1)
Affairs. The author, Walter Froelich, is a science writer with the United States Information Agency.

Orders for the publication must include payment in check or money order to the Superintendent of Documents. U.S. Government Printing Office, Washington, D.C. 20402.

YOU'RE INVITED— MSC will have some special visitors on Thursday, April 29. At 11:00 a.m., Mickey Mouse, Pluto, Goofy, and Snow White, all of whom will appear in the "Disney on Parade" show at the Houston Coliseum May 4 through 9, will arrive at the Building 1 Auditorium.

Youngsters and "oldsters" are invited to meet the visitors.

# EAA Reps Have Discount Coupons

A discount of from \$1.50 to \$2.00 per ticket is being offered to MSC employees for performances of the hit Broadway musical "Fiddler on the Roof" at the Music Hall in Houston.

The discount coupons, available now from your Employees Activities Association representative, are good only for performances during the week of May 4 through Sunday, May 9.

ped individuals, thereby enabling them to claim their just rights to 'decent standards of living, economic security, and meaningful occupation.'"

The mentally retarded have proven to be valuable and productive employees in performing such tasks as running certain types of machinery, bundling mail for delivery, and searching files.

H. Mervin Hughes is MSC's coordinator for employment of the handicapped. In addition to the practice of hiring the mentally retarded, there are programs here and throughout government for hiring disadvantaged persons, the physically handicapped, the mentally restored, and returning Viet Nam veterans.

The certificate closes by noting MSC's "significant contribution to the dawning of this new age of 'equal and inalienable rights of human dignity and freedom' for these special people of the human family."

# **Lions Announce Camping Session**

The Texas Lions League, which for the past 18 years has operated a summer camp at Kerrville for handicapped children, has added this year, in cooperation with the diabetes associations of Texas, a special three-week camp for diabetic youngsters.

The special summer session, to be held June 7 through 25, will be at Camp Manison near Friendswood. The diabetic camp will have 110 youngsters, 6 through 16, in the pilot program.

Names, ages, and addresses of potential campers should be sent to Paul Truitt, Bay Area Lions Club, P. O. Box 58252, Houston 77058.

## ROUNDUP

IASA MANNED SPACECRAFT CENTER

HOUSTON, TEX



The **Roundup** is an official publication of the National Aeronautics and Space Administration Manned Spacecraft Center, Houston, Texas, and is published every other Friday by the Public Affairs Office for MSC employees.

## Roundup Swap-Shop

(Deadine for Swap-Shop classified ads is Thursday of the week preceding **Roundup** publication date. Ads are limited to MSC civil service employees and assigned military personnel. Maximum length is 20 words, including name, office code and home telephone number. Send ads, typed or legibly written, to **Roundup** Editor, AP3)

#### MISCELLANEOUS

PLEASE: Whoever is sending copies of the ROUNDUP to Mr. W. Hutcheson in Portsmouth, Virginia, please stop. He doesn't live there any more! Editor.

Den furniture, \$75; kitchen set, \$15; crib mattress, \$5; sewing machine, \$35. Monroe, 932-3706.

3-piece curved sectional, \$25; gas logs. \$30; B/W portable TV, \$20. Davis, 681-3963 or

869-1212. Used box spring and mattress (twin), good cndn, \$25. Baker, 944-2549 after 5 p.m.

Clarinet B-flat, Selmar soloist, professional caliber instrument. Used 2 yrs by high school band student. XIn condition. Original cost \$285. Sale price \$175. Rubenstein, 877-3288.

Gerry carrier backpack, \$8; carriage/carbed comb., \$12; dresses to size 2, etc. All in like new cndn. Kopernik. 946-2560.

Precision Scintillator (Geiger Counter), original cost \$350, sell for \$100. Corvette side exhaust mufflers, fits '63-67, \$50 for set. Noakes, 482-3565.

135/3.5 Nikkor automatic lens for Nikon F. XIn cndn, \$110. Nicholas, 944-3656.

Hobbyist's gold mine, prototype ATV, low pf ssure tires, 6 hp B&S, BMW transmission. m\_ny sprockets, chain, bearings, shafts. McKinney, 944-5534.

Garage sale. Fantastic bargains. April 22, 23, 24, 1801 Rampart Street (Clear Creek Village), League City. Glassburn, 932-4682.

Membership, Clear Lake Country Club. Bargain price. Vetter, 488-0275.

Motor, 14 hp, 1725 rpm, 1PH, G.E., 115 V.A.C., thermal protected, used, \$10. Liddell, 471-4448, 6 to 7 pm.

Washing machine, rebuilt GE, 2 spd, 2 temp, cost \$209 new go,ng for \$80, cash and carry. Liddell, 471-4448, 6 to 7 pm.
Start the summer right. Join Sunmeadow

Golf Club, only \$150. Taylor, HU2-1023 after 6 pm.

Motor, 115 VAC, ½ hp, 1725 rpm, 1 PH. G.E., thermal protected, used, \$15. Liddell, 471-4448, 6 to 7 pm.

471-4448, 6 to 7 pm.

Motor, 14 hp, 115 VAC, 4 spd, 1 PH, Dayton Thermal protected, new, \$20. Liddell,

471-4448, 6 to 7 pm.
Double bed, springs, mattress, dresser w/o mirror, \$35 or best offer. Ward, 481-2266.

Cassette recorder, mike, case, batteries, power pack, extra tapes, \$27. 410 ga. Mossberg shotgun, 4 boxes shells, \$35. Campbell, 591-

Bass guitar, xIn cndn, \$70. 3-cushion sofa, xIn cndn, \$100. Adams, 534-3243, Dickinson. 50' roll brand new 2'' x 4'' square welded fence 48" high, \$10. Ramirez, 944-7249.

Winchester, Model 94, 30-30 caliber, pre-1964 Series, \$65. Robinson, 944-3243.

Complete B&W darkroom, \$175. Super Omega, Type B enlarger w/50mm f4.5 Schneider Componar lens. Have written inventory. Liebergot, 534-3100.

Evinrude 40 hp ouboard, very clean, never run in salt water, Davis, 869-1212 or 681-3963. K & E sliderule, \$25; .22 rifle, \$8; B-Flat clarinet, \$70; travel suitcase, \$8; swing set, \$15; Best Encyclopedia Britannica, \$125. Glassburn, 932-4682.

One-year-old 7'-2" Vern Cunningham Fiber-glass surfboard, \$45. Griffith, 877-4922.

Evinrude boat motor, 7½ hp, 1957 model, self-contained gas tank; runs good, \$65. Brown, 482-1582 after 5:30 pm.

Small wheel tilt boat trailer, handles up to 16' boat, \$50. Mechelay, 534-3994.

Dishwasher, Frigidaire, 1971 model DW-CDUP under counter, custom deluxe, avocado, new warranty, \$165. Johansen, 474-5027.

arranty, \$165. Johansen, 474-3027. 10' x 12' wall tent, no floor or windows,

## Umpires . . . Where are you?

A plea is sent forth to those among you who feel the need for invigorating fresh air (particularly that which abounds in the MSC recreation area), who have keen eyesight, who can judge impartially the acts of would be major leaguers, and who can easily pronounce such words as "strike!"

The MSC Employees Activities Association Softball League needs, nay, WANTS you! Will you help? Experience is desirable but not necessary. Will you volunteer to be an umpire? Please?

If your heart has been touched by this plea, call Mike Christensen at extension 2921. complete w/poles and stakes, xln cndn, \$25. Price, 471-3314.

Automobile air conditioning compressor and clutch assembly. York, \$45. Brenton, 488-4372. 24" boys bike, good cndn, new paint, very sturdy, bargain for \$15. Horton, 877-4102.

"Harmony" Acoustic-electric guitar, case, strap, small amplifier and 20' coil cord. \$125. Cole, 591-4408.

Medium size, well built dog house, transportable in three pieces. \$10. Cole, 591-4408.

"Pack Wagon" wheel camper sleeps 6 plus extra room & canopy. Gas stove and oven, space heater, pressure water system, xln cndn, \$1200. Benjamin, 932-3287.

Wards vacationer tent trailer, sleeps 4, mattresses & spare tire, \$300. Brasseaux, 877-1719. L88 4-bolt main block, complete TRW main bearing set w/insert; Ansen head studs. Elder,

1968 Starcraft Starmaster 6 camping trailer. XIn endn. \$1300. Larson, 481-0068.

Craftsman 6-inch jointer-planer w/motor. XIn cndn \$100. Larson, 471-0068.

Wards camper mattress, \$10. Wards electric broom, \$6. 472-8208.

15-hp 2-cyl Michigan Marine, ideal sailboat auxiliary engine, strtr & gen need repair, \$100.

White, 932-4472.

New world engines. Four channel digital R/C receiver. transmitter, (two servos), flight

receiver, transmitter, (two servos), flight pack and charger, \$160. Kubicki, 471-3174. Motorcycle helmet, boys' medium, silver metalflake, new, \$12.50. Joerns, 591-3330.

Memberships in non-profit aero club. Dues \$12/mo., hourly wet rates 250 Cornanche \$15, Yankee \$8, Taylorcraft \$6. Doiron, 482-7829.

64 Ford Galaxie 500 4-dr, xtra clean, \$675. Stallings, 488-2250.

Mini-bike, 5 hp w/ alternator, front shocks, independent rear suspension, drum brakes, front, tail and brake lights. XIn cndn, \$150. Cole, 591-4408.

71 Honda 750, perfect cndn, red, \$1450 or \$450 down. Bean, 488-3443.

64 Chevy sedan, \$500. 472-8020.

64 Pontiac Catalina, 4 dr HT, factory air, power brakes & steering, auto transmission, good tires, looks good, runs good, \$450. Goodheart, 433-6371.

46 GMC original xcept for bed, engine, seats, needs new owner w/mechanical ability and lots of patience. Stewart, 932-2392.

70 Kawasaki 90cc trail-street motorcycle, perfect cndn, runs great, cost over \$400. Sacrifice for \$285. Horton, 877-4102.

60 Chrysler, N.Y., good cndn, \$150. Rodman, 932-4422.

66 Ford Country Sedan wagon, 67,000 mi, 390 engine overhauled, A/C, power, booster shocks, trailer hitch. Brown, 591-3103.

68 Chevy Camaro, 6 cyl. automatic, good tires, \$1200. Christman, 483-4511.

68 Corvette, hardtop, 4/speed, all power, A/C, custom paint, \$3000. Harris, 483-3791. 65 Falcon Futura station wagon, A/C, auto transmission, roof rack, radio, clean, \$750 firm. Trout, 944-3959.

Honda Scrambler 175, 4 months old, good endn. \$550. Beers, 482-1462.

65 Pontiac Cat., 4 dr HDTP, white w/ black top, A/C, P\$, PB, good tires, runs well, 15

MPG. Nancarrow, 946-5075.
67 Mercury Cougar V-8, Std 3-spd on floor.
Air, new tires, good cndn, \$1550. Meade, 672-7451, x33 before 5 p.m., 331-3294 after 5 pm and on weekends.

66 Chevy  $\frac{3}{4}$  ton pickup  $\frac{1}{8}$  overhead camper, \$1595, Fillippa, 534-5827.

66 Cortina English Ford, 4 speed transmission, racio & heater. Crews, 877-3255.

BOATS

Sailboat, Super Sailfish, good cndn, \$75. Davies, 932-5752.

14' f.berglassed wood ski boat, 25 hp motor, w/trailer; just remodeled and in xIn cndn. Leaving state. Sacrifice. \$395 or trade for motorcycle, tools, etc. Hooper, 877-1328.

1968 15' Thunderhawk outboard, semi-tri-hull, '68 Mercury 650, '70 Dilly Trailer, all equipment included. Yarbrough, 481-4217.

ment included. Yarbrough, 481-4217.
23' I.O. cruiser and trailer, 1967 Allmond.
Rodman, 932-4422.

16' IMP Runabout, 80 hp Evinrude, gator trailer, vinyl top, ski's, belts, etc. Like new, \$1600. Mcfarlane, 488-2493.

#### farlane, 488-2493. REAL ESTATE & RENTALS

115' waterfront lot on Clear Lake. Boat ramp. Deep water. Leaving state Sacrifice at almost half market rate, \$10,000. Can finance. Hooper, 877-1328.

Luxurious 27' Dodge motor home. Completely self-contained or adaptable to external facilities. \$250 per wk. Doke, 488-2786.

Fairmont Park, 3-2-2, reduced equity, fenced, central heat & air, built-ins, oversized lot, large patio, owner. Edwards, 471-1149.

El Cary, 1 mile to gate, 4-2-2 with rec, family, and living rooms, fireplace, built-ins, 1½ story, large trees and enclosed lot. Rippey, 877-1859.

Clear Lake City townhouse for lease, 1½ bath/2 BR, carport, patio, washer & dryer, storeroom. Available immediately. Deans, 488-

Seabrook (Miramar), 3-2-2 custom home,

fenced, new carpet, other xtras. Littleton, 474-3418.

Clear Lake City, 2-1-2, reduced equity. Landscaped, cedar fenced, wood burning fireplace, Roman bath, recreation area 3 blks, owner. Burton, 488-3751.

Apt to sublet fof summer, fully furnished, utensils, linen. Poolside. \$125 per mo, including utilities Call 944-5744 after 5 pm.

 $50 \times 100^{\circ}$  lot on Lake Livingston, wooded. Arteberry, 331-4039.

#### WANTER

Outboard motor, 75 hp or larger, prefer Evinrude or Chrysler, good cndn. Davis, 869-1212 or 681-3963.

Boat trailer, 2 wheel, 13 or 14" rims. Brenton, 488-4372.

Need that banjo that has been gathering dust, for teenage daughter. Will pay up to \$50. Moran. 488-4086.

Utility trailer or wheel & spring assembly suitable for building trailer. Maximum, \$20. Truman, 482-7042 after 5 pm.

Small boat trailer for Dolphin sail boat. Davies, 932-5752,

Free kittens, black, part Siamese, healthy, female. Ritter, 645-8221.

Two miniature silver poodle puppies, 10 weeks, dewclaws removed, tail cut off, shots, wormed, and puppy clip, \$30 each. Filler, 946-0275.

Irish Setter puppies, AKC registered. Silveira, 591-3767.

Tiny toy poodles, AKC, 1 male, 1 female, white, sire weighs 3 pounds. Dietz, 877-1282.

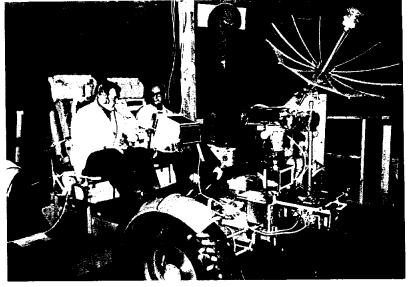


CHORUS MEMBERS—(I. to r.) Joe McGrady and Paul Coan of the Information Systems Division, Thornton Page, Naval Research Lab; and Clarke Hackler, Guidance and Con-

# Chorus to perform at Spring Concert

Under the direction of Milton Pullen, the 100-voice Bay Area Chorus will present its annual Spring Concert at the Clear Creek High School Auditorium on Sunday, April 25. There is no admission charge.

The chorus is now in its sixth season.



ROVER—Two Boeing engineers perform communication tests on the Lunar Roving Vehicle which Astronauts David Scott and James Irwin will use on their "Moon rides" during the Apollo 15 mission.

### Rover passes new series of tests

The Lunar Roving Vehicle (LRV) to be used by the Apollo 15 astronauts on their lunar excursions in early August, was recently run through a series of tests in the anechoic chamber, especially designed to be totally noisefree, of MSC's Telemetry and Communications Systems Division.

The television cameras on the Rover, the spacesuit communications systems, and the lunar relay communication unit were tested first and found to be operating satisfactorily.

Then the Rover engine was turned on to determine whether

it would interfere in any way with the functioning of communication systems. All of the communications equipment performed perfectly under engine-on conditions.

Some of the major contractors participating in the tests were Boeing, builder of the LRV; Hamilton-Standard, responsible for the spacesuit; and RCA, with responsibility for the communications equipment on the Rover.

Engineers from Marshall Space Flight Center, which has the contract with Boeing for the LRV, and from MSC also took part in the testing program.

### Next time, try fluorescent golf balls!

The MSC Golf Association ran into a new first at Brock Park on April 3rd when some of the members of three flights were unable to complete play because of darkness. Committee members, taking pity on those unable to finish a full 18 holes of golf, decided to award the prize money on the basis of scores through the 16th hole.

Players found the course playing extremely rough because of wind conditions, and the lowest complete score recorded was an 82, brought in by Ike Spiker.

In the championship flight, Ike Spiker came in first, followed by Bill Dusenbury, Hugh Everett, and Jim White. In the first flight, Bob Reaves and Mike Conway tied for first, with Ernie Weeks and Bob Liounis tying for second. The second flight saw Wayne Lazlo coming in first with Lyn Dunseith, Dick Hart, Ken Young, and Norm Worley tied for second. Third Flighters Gerry Kenney and Dick Williamson tied for first, Dave Harris was second, and Jim Neal and Harry Kolkhorst tied for third.

The next tournament will be at H & H Guest Ranch on Saturday, May 1, starting at 8:00 a.m.



GOOD GRIEF, GOOD GOLFERS!—The proud gentlemen pictured here are members of the MSC Golf Association and are the 1970 golf champions. In the front row (I. to r.) are Lou Brown, Pete Smetek, Bill Shropshire, Norm Cooper, and Bart Batson. The back row (I. to r.) includes Jim Smith, Dave Dyer, Dave Harris, Steve Gorman, and Bob Liounis. Cliff Crouch, Ken Land, and John Jones were not present for this picture taking session.

## Where did you say you were going? (A saga of the Travel Office)



TRAVEL OFFICE—The travel clerks seated at their desks are (clockwise, l. to r.) Ruth Reck, Maureen Cruz, Estelle Waddell, Marilyn Hartman, and Karen Gerson. Standing (l. to r.) are Sandra Wright, Clarence Johnston, head of the Travel Section; and Norma Castelo. The postcards in the background are but a few of the thousands received by the office from MSC travelers.

"Miss Evans, there's a design review in Huntsville on Tuesday and I've got to be in Seattle to give a speech Wednesday night at eight o'clock. Will you take care of all the arrangements, please?"

This is the beginning of a process familiar to many MSC employees. Pivotal to arrangements for government travel is the Passenger Travel Section of the Transportation Management Branch within the Logistics Division. By those who know so well its important services, the Section is more simply referred to as "Travel."

Clarence W. Johnston heads the Travel Section. The five travel clerks who take the bulk of the calls requesting assistance in trip planning are Maureen Cruz, Estelle Waddell, Marilyn Hartman, Karen Gerson, and Ruth Reck.

Sandra Wright is the travel coordination officer and as such is responsible for passports, visas, foreign travel, and trips to meetings outside the specific sphere of government activities.

Norma Castelo's primary responsibility is to assure that the travel orders are properly filled out and put together before the traveler picks them up, along with his or her ticket, transportation request, and itinerary. Cookie

Underwood of the Financial Management Division is the funding clerk, and Joyce Patterson and Rita Hendrix are the travel cash

The travel people are assisted in their work by the Scheduled Airline Ticket Office (SATO), adjacent to the travel office on the first floor of Building 2 and staffed only by airline employees.

The SATO, according to Clarence Johnston, was the first airline ticket office to be located in a civil agency in Federal Government. Before the ticket office was set up, the travel coordinators used teleticketing machines or asked the travelers to pick up their own tickets at the airport. Neither system worked satisfactorily. Hence, the SATO was established.

The average number of trips arranged by the travel office runs about 800 per month, plus another 450 to 500 trips scheduled on the shuttle flights to and from Huntsville, Alabama. Ruth Reck is responsible for the shuttle passenger reservations

All of the travel clerks enjoy the satisfaction of planning a smooth and pleasant trip for their travelers. Serving as testimony to their successful efforts are the walls of the travel office which are filled with postcards from appreciative MSC travelers.

From time to time, a thoughtful traveler has sent a box of candy or Florida oranges to say a special "Thank you" to the travel ladies. Two highly unusual gifts to the office were a cuckoo clock and a picture of an MSC traveler with a native (not "branch"!) chief in the jungles of Central America! Both of these mementoes are displayed on the travel office walls.

Ruth Reck found a benefit from her work that she hadn't expected. Feeling jovial one day, she kiddingly asked an MSC secretary whether the man for whom she was arranging a trip was single and, also, how old he was. "Yes," came the reply, "and he's about 26 years old."

"Too young," said Ruth.

"Well," came the response, "my father is single, too, and older."

Ruth is now married to Albert Reck, whose matchmaking daughter is Linda Hawkins of the Power and Propulsion Division. (According to an "informed source," the original traveler now refuses to allow Linda to book his travel since, he says, he's a confirmed bachelor!)

Estelle Waddell recalls what was probably one of her most embarrassing moments. She sched-

uled her husband Gerald, who works in the Program Resources Division, on a non-existent flight to Washington, D.C. Fortunately (for the happiness of their marriage), at the airport he was rescheduled on an actual flight, but this didn't prevent Estelle from suffering a good bit of kidding from her husband and the other travel clerks.

Sandy Wright poted that one of

Sandy Wright noted that one of the major frustrations in her work is securing passports and visas in time for a trip to begin. Travelers who have up-to-date official NASA passports (used on government travel) should notify Sandy of their intended travel at least four weeks in advance of the date of departure. Travelers who do not have official passports and who will need them should make application six weeks in advance. The office, depending on the regular workload, will also accept MSC employees' applications for personal passports.

Sandy remembers one of her most embarrassing moments in the travel business. Astronaut Neil Armstrong, shortly after release from quarantine following the flight of Apollo 11, came to her office to apply for both official and personal passports. Sandy admits now that she was a bit excited and nervous about meeting Armstrong. What illustrated the extent of her excitement at the time was her momentary inability to spell the word "passport." To the amusement of Armstrong, on the third try, she finally succeeded in writing correctly a word which she uses constantly in her work!

Maureen Cruz also remembers the time that a secretary called to make arrangements for a trip to Rochester. The travel coordinator obligingly scheduled the appropriate flights to Rochester, New York, with a change of planes in New York City. It was one frustrated traveler (who shall remain nameless lest we dredge up painful memories) who arrived in Rochester, New York, when he was actually supposed to be in Rochester, Minnesota!

The travel office has some suggestions for trip-planners and travelers. First, make sure that the final destination is clearly understood by the travel clerk, particularly if the city's name appears in more than one state. Secondly, if the trip is to include multiple destinations, all of them should be noted on the travel request. Third, if personal travel is to be included, it should be mentioned at the time of booking. And finally, if the secretary would confer with the traveler *before* final booking, much of the re-scheduling could be eliminated.

In the midst of planning trips to such exotic places as Pago Pago, Samoa, and Helsinki, Finland, and to such U.S. cities as San Francisco and New York, the travel people seem not to have as much time as they would like to travel on their own. But there is a great deal of pleasure, so they say, in making your trip as pleasant and comfortable as possible for you. But then, that's just the nice sort of people they are!

#### Adams Wins Slot On School Board

T. J. Adams of the Quality Assurance Division was elected to the seven-member Dickinson School Board in an election held on April 3rd.

Although this is the first time he has held an elective office, he is a member of the Board of Directors of the Dickinson Housing Association and is active in other civic and church affairs.

#### Benefits Display

(Continued from page 1)

which should have wide appeal for both sexes is "for taxpayers only."

The exhibit is part of a series of six which are collectively called "compatibles." Devised by NASA Headquarters for display at field centers, museums, planetariums, science fairs, etc., the compatibles may be used separately or together. They range in size from 17 to 35 feet in diameter. All are electronically designed, making maximum use of audio and visual devices.

