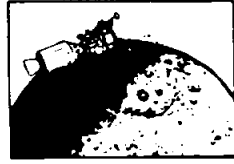


Art museum offers
six free concerts
Call 526-1361

ROUNDUP

NASA MANNED SPACECRAFT CENTER

HOUSTON, TEXAS



VOL. 10 NO. 16

JUNE 18, 1971

Sunday, June 20
Is Father's Day
Be nice to Dad!



APOLLO 15 EMBLEM—This patch, designed for the Apollo 15 lunar landing mission, features the colors red, white, and blue. The large disc in the center of the emblem has symbols of flight in the three colors, superimposed over an artist's concept in gray of the Apollo 15 Hadley-Apennine landing site. Apollo 15 crewmen David R. Scott, Commander; Alfred M. Worden, Command Module Pilot; and James B. Irwin, Lunar Module Pilot, are scheduled to begin their journey to the moon on Monday, July 26.

AAS to present 1970 awards at June banquet

The American Astronautical Society (AAS) has announced that its annual awards banquet will take place in Seattle, Washington on June 29. A number of MSC employees are among those to be honored by the AAS at the banquet.

Robert E. Smylie, Chief of Crew Systems Division, and Charles C. Lutz, also of Crew Systems, will receive the Victor A. Prather Award which honors researchers and engineers in the field of extravehicular protection in space. They are being honored specifically for "their recent effort on the Apollo Extravehicular Mobility Unit consisting of the Apollo lunar suit and the portable life support system."

The Flight Achievement Award goes this year to the Apollo 13

crew, James A. Lovell, John L. Swigert, Jr.; and Fred W. Haise, Jr., "for their development of emergency flight techniques through their skillful and courageous efforts which made possible the safe return of the disabled Apollo 13 space vehicle."

Dr. A. Duane Catterson, who before leaving MSC was Deputy Director of Medical Research and Operations, will receive the Melbourne W. Boynton Award for contributing to the safety of space flight.

Election as an AAS Fellow is an honor "conferred upon persons who have made significant contributions in one of the astronautical sciences, as well as having done original work of direct value to astronautics." Kenneth S. Kleinknecht, Manager of the Skylab Program, has been elected an AAS Fellow "for his contributions to the success of the manned space flight programs as Manager of Project Mercury, Deputy Manager

(See AAS, page 3)

Lenett on Stage

Stuart Lenett, Telemetry & Communications Systems Division, will take part in an original musical comedy, "Malkah Ropes a Texan," on Saturday and Sunday June 19 and 20 at Bellaire High School. Proceeds will benefit youth activities in the United Orthodox Synagogues of Houston.

Stu guarantees a delightful evening. Call him today at extension 2128 for tickets.



WINSOME WINNERS—The Moon Trotters, an MSC women's volleyball team, recently won the first EAA-sponsored ladies' volleyball tournament. The victorious gals are (row 1, l. to r.) Carol Schrader, Shirley Roberts, team captain; Sharon Laws, (row 2), Charlotte Ober, Susan Cardenas, (row 3) Johnnie Nicholosi, Nita Bouldin, and Dorothy Kubicek. Missing from the photo is Margaret Guerra.

Three NASA Centers to share in Space Shuttle Management Tasks

The Office of Manned Space Flight (OMSF) at NASA Headquarters announced last week its management plans for the Shuttle Program.

The OMSF at Headquarters will manage the overall Space Shuttle Program and will have prime responsibility for detailed assignment of duties, basic performance requirements, money allocations to the field centers, and control of major milestones.

MSC has been assigned responsibility for development of the Orbiter stage of the Shuttle. Marshall Space Flight Center will de-

velop the Booster stage and main engines for the Space Shuttle, and Kennedy Space Center will be responsible for design of launch and recovery facilities.

Dale D. Myers, Associate Administrator for Manned Space Flight, in his announcement of management plans for Shuttle sta-

ed that MSC will also have "program management responsibility for program control, overall systems engineering and system integration, and overall responsibility and authority for definition of those elements of the total system which interact with other elements." (See OMSF, page 3)

WE GET LETTERS, LOTS OF LETTERS . . .

Many people write to Center seeking "The facts" on U.S. Space Missions

The Public Affairs Office receives and answers an average of 8,000 to 10,000 letters each month. Eighty percent of the letters request specific information on the space program.

Six people are responsible for answering the queries. In many cases, they send fact sheets which are produced here on such subjects as the Mercury, Gemini, and

Apollo Programs; Skylab, Shuttle, and the facilities of MSC.

Since the lunar landing missions have been so widely publicized and televised, the questions have become more specific. Instead of asking for general information on the space program, people will inquire about the definition of a "launch window," for example.

(See ANSWER, page 2)

U.S. And Russians swap soil samples

In Moscow on June 10, representatives of NASA and the Academy of Sciences of the U.S.S.R. exchanged lunar samples.

Three grams of lunar material returned by Russia's Luna 16 were exchanged for 3 grams returned by Apollo 11 and the same amount returned by Apollo 12.

The agreement leading to the sample trade was signed by Russia and the United States on January 21, 1971. The exchange is the first provision of the agreement to be undertaken.

According to the American Embassy in Moscow, "the exchange provides an opportunity for scientists in both countries to benefit from the study of material from areas of the moon to which they would not otherwise have access."

Lee R. Scherer, Director of the Apollo Lunar Exploration Office at NASA Headquarters, headed the American group in Moscow. Academician A. P. Vinogradov, a visitor to MSC in January, presided for the Academy of Sciences.



THANKS, BUZZ — Astronaut Edwin E. "Buzz" Aldrin receives a plaque from a member of a local Boy Scout troop, thanking him for his work with the Scouts in this area. The presentation was made during dedication ceremonies for Camp Friendswood, a new Scout camp located between MSC and the Lunar Science Institute. Aldrin will leave for his new assignment at Edwards Air Force Base on July 1.

Cunningham quits Space Program

Astronaut Walter Cunningham announced yesterday his resignation from NASA effective on or about August 1.

A veteran of 260 hours in space aboard Apollo 7, Cunningham will become Vice President of Operations for Century Development Corporation, developers of Greenway Plaza in Houston.

Cunningham, a civilian, has been assigned to the Skylab Program since his Apollo flight. His resignation will reduce the number of astronauts on space flight status to 45.



UNDERWATER ACTION—Members of the championship MSC Lunarfans Club compete with members of the Houston Underwater Club for possession of the hockey puck during recent matches at Lee College in Baytown.

THEY TOOK THE PLUNGE AND WON!

MSC Divers are hockey champs

Lunarfans, the MSC Skin and Scuba Diving Club, recently won the Underwater Hockey Championship for the Texas Gulf Coast.

The championship matches were sponsored by the Texas Gulf Coast Council of Diving Clubs and hosted by Lee College in Baytown. Competing for the championship title were Lee College Kingfins, Beaumont Hammerheads, Houston Underwater Club, Houston Diving Association, Rice University Diving Club, and MSC Lunarfans.

The game of underwater hockey is played by two five-man teams and consists of pushing a puck from face-off to goal area by means of a hockey stick. The game is played on the bottom of a swimming pool. Each player uses a face mask, snorkel, and fins. Playing time consists of four five-minute quarters with two minutes between quarters and five minutes between halves. There is also a

one minute rest after a team has scored.

The goals are four feet wide at the opposite ends of the pool. Goals are marked with grease pencil or tape on the bottom of the pool.

The puck is 2½ inches in diameter. It is made of brass and weighs two pounds. The wooden sticks are approximately 12 inches long, with one end shaped like a shuffleboard stick so that the brass puck may be pushed along the bottom of the pool.

Played entirely underwater, the game sees each team trying to capture the puck and push it through the opposite goal for a score. There are very few rules, and the number of substitutions is unlimited.

The Underwater Society of America approved underwater hockey several years ago. At that time MSC Lunarfans Wally Graves, Bill Moran, and Hugh Scott introduced the game to the diving clubs along the Texas coast. Today the game is played all over the United States.

The EAA-sponsored Lunarfans hold their business meetings at 7:30 p.m. on the third Wednesday of the month at Ellington Air Force Base, Building 336. For additional information about club activities, call Robert Stubblefield at extension 2791.

Explorer Meeting lures local youth

Patrick Donnell, son of James W. Donnell, Chief, Standards Engineering Office, was one of 28 Explorer Scouts from the Houston-Galveston area to attend the National Explorer Presidents' Congress, held in Washington, D.C. in early June.

The Congress opened with a reception on the White House lawn at which President Richard Nixon addressed the 2,000 high-school-age Explorers.

During the 5-day Congress, Labor Secretary James Hodgson, Attorney General John Mitchell, Selective Service Director Curtis Tarr met with the Scouts.

Patrick is a sophomore at Clear Creek High School.

Answering letters is a full time job

(Continued from page 1)

Often, when the questions become very technical, the Public Affairs staff seeks assistance from other Center organizations with greater technical expertise. When the facts have been obtained, Public Affairs writers send a response to the inquiring individual.

There are very few letters negative in tone toward the space program. One third of the correspondence originates in foreign countries, and sixty percent comes from school-age children.

The Public Information Services branch in PAO can accept only written requests for information, to be mailed only to home addresses.

Here's one letter written recently by a seven-year old:

"Dear Space Agency,

You probably know the story 'Apollo and Diana.' Well, you probably know then that Apollo was the god of the sun and Diana was the goddess of the moon.

"I bet you named the rockets after Apollo but to me that does not make sense. Let me again remind you that Apollo was the god of the sun but nobody has ever dared go to the sun.

"However, Diana was the goddess of the moon and people have gone there. So that is why I think the rockets should be named Diana instead of Apollo.

"I have another reason too. I have a friend Diana and I really like her!"

After thanking the young lady, whose name is Sharona, for her interest in the Apollo program, the MSC correspondent went on to say, "Sharona, I'll bet that nobody who was involved in naming Apollo thought of it exactly as you did.

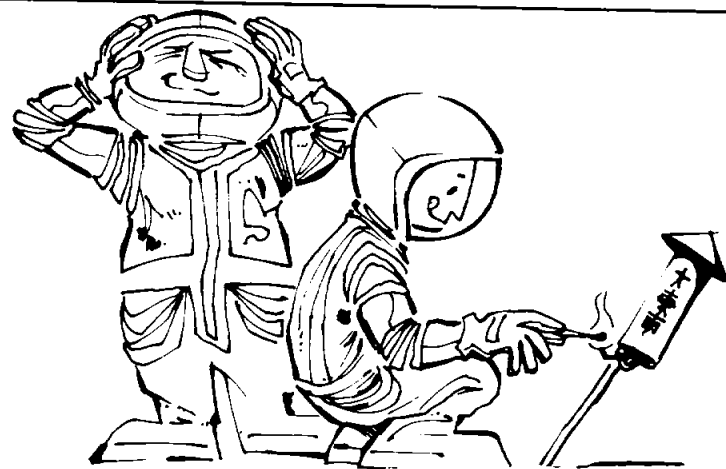
"You remember that Apollo used to ride his chariot across the sky every day—and that's what they were thinking about—that the astronauts would be riding this modern chariot.

"Space has many years of exploration ahead of it, and many more and newer space ships will fly. Certainly some day we must name some after the goddesses instead of the gods—perhaps Diana, the Huntress, or Minerva, the Wise, or perhaps Athena, the Greek goddess who was also the Wise."

Bridge Club Sets Summer Classes

The MSC Bridge Club is organizing a bridge class for beginners. The course will cover the basic techniques of bidding and rubber bridge play. The series of ten classes, to be held on Tuesday evenings, will begin in July.

For more information on club activities, call Jim Rancy, x4651.



(courtesy of TRW's Gordon A. South)

Rocket enthusiasts to meet at MSC

TEXAREA III, the third annual rocketry contest sponsored by the Apollo-NASA Section of the National Association of Rocketry, will take place here on Saturday and Sunday, June 26 and 27.

Registration is scheduled for Saturday morning, with the first events to begin around noon, lasting until 6:00 p.m.

Activities on Sunday will start at 9:00 a.m. and will feature firings of scale-model rockets, including exact scaledowns of the Little Joe and Saturn V rockets.

Forty to fifty contestants from all over the state are expected to participate in the contest. The rocket firings will take place on the antenna test range area along Avenue E.

Contest Director Bernard S.

Russell will provide additional information for would-be competitors and spectators. His phone number is 433-0797.

NCMA to hear U of H Authority

Dr. Edwin Triner, Assistant Dean for External Affairs in the College of Business Administration, University of Houston, will speak at the June 29 meeting of the National Contract Management Association. His subject will be "Educational Opportunities in Contract Management."

The dinner meeting is set for the Nassau Bay Hotel. Call Jack Fuller, x6116, for reservations.

Air Force Monkey Astronaut now Residing in the San Antonio Zoo

(Reprinted from *Astro Medic*, Brooks Air Force Base).

A Rhesus monkey who traveled 53.03 miles into outer space has been presented by the U.S. Air Force School of Aerospace Medicine to the San Antonio Zoo.

Sam, who was named after the School of Aviation Medicine (SAM), was born at Randolph Air Force Base in April 1957, where the school was located.

Colonel Evan R. Goltra presented the monkey to the zoo director, Louis DiSabato, in early May.

Sam was trained for his flight at several locations, including the University of Texas in Austin. He made his flight when he was two and a half years old, and weighed only six and a half pounds. Today, at age 14, he weighs 40 pounds.

Following his flight during high altitude tests of the escape mechanism on the Project Mercury capsule, he returned to Brooks for general physical observation. He remained at Brooks in a semi-

retired status for 12 years.



A GUY SURE CAN GET TIRED OF BANANAS!—Sam, banana in hand, is shown here in a 1967 photo with laboratory animal technician Sergeant Alva A. Karl.

Sam's vehicle, a "Little Joe" rocket, was launched from Wallops Island, Virginia.

Speaking of Sam, DiSabato said that "14 is a good old age for a monkey; he is no youngster, but he is in excellent shape. We will put him on a low-carbohydrate diet to bring his weight down."

Sam will have his own cage bearing a plaque describing his trip into space.

Wins poetry award



Miss DeFoy

Virginia R. DeFoy, a film coordinator in the Photographic Division, recently received the Dr. E. S. Lauzer Memorial Award from the Houston Chapter of the Poetry Society of Texas.

Her winning entry in the Chapter's June Festival Contest was a poem entitled "Traveling Man," which tells the story of a country doctor.

Virginia has worked as a professional photographer. She does not claim to be a "professional" poet; however, most of her fellow members in the Poetry Society of Texas are professors or poets whose works have been published.

ROUNDUP

NASA MANNED SPACECRAFT CENTER HOUSTON TEXAS

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.

Editorial Staff: Sydni Shollenberger, A. "Pat" Patnesky

Roundup Swap-Shop

(Deadline 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

Coleman lantern, \$10. Coleman stove, \$12. Camping sink (integral water supply), \$8. Walker, 591-3719.
Sears Copertone washer/dryer, 3-yr old; 19" white freezer, 1 1/2-yr old; 93" contemporary white curved sofa like new; French provincial end table & lamp. Lang, 591-3907.
Sears 23" B/W TV, AM-FM, stereo entertainment center. Over \$400 new. Changer needs work, \$120. Lindemuth, 482-1086.

King size Spanish bedroom suite, chest on chest, triple dresser, double mirrors; genuine black leather chair & ottoman; imported black & gold marble end tables, modern; hi-fi system (tube type) general coverage SW revr. Lang, 591-3907.

Royal portable typewriter, \$15; massive oak desk, needs refinishing, \$20; three danish modern chairs, \$15-55. Lindemuth, 482-1086.

Gym set w/two swings, trapeze, 4-passenger lawn swing, 2-seater glide ride, and slide. One year old, new \$59, ask \$30. Bass, 534-3890.

Electric portable sewing machine w/attachments, make-Brother, perfect cndn, \$28. Bass, 534-3890.

New 1971, unopened set of World Book Encyclopedia, green & white binding, \$195. Ruple, 481-3927.

GE portable dishwasher, xln cndn, \$75. Truly, 877-3220.

Breakfast table and 4 chairs, \$30; 2 coffee tables, \$10, good cndn. Carrier, 591-3405.

Two regular size mattresses and one regular box spring, \$12.50 each or \$30 all three. Newbrough, 877-2315.

Hedstrom jumper walker, misc baby items, Hanksraft facial sauna (new), maternity dresses (winter & summer, size 11-12). Cubley, 488-2248.

High standard "Hombre" .22 cal, 9 shot, western style revolver, xln cndn and in warranty, \$38.50. Musgrove, 488-3966.

30" Royal Chef copertone electric stove, used only 1 week, \$125. Guerra, 487-1204 after 6:00 p.m.

Chickering upright piano, completely overhauled and refinished. The Cadillac of upright pianos; beautiful tone, \$310. Bass, 534-3890.

Cleveland tenor sax, used 3 years, good externally, xln play for high school band, \$285. Miller, 471-2789.

Baldwin Aeronomic piano, walnut case, just tuned and appraised. Young, 877-4348.

Junior Girl Scout uniform, wash-and-wear, size 12-14, \$5. Donohoe, 488-1432.

Marble top coffee table w/Truetone AM-FM stereo in drawer. Changer needs adjustment, \$75. Avent, 591-3771.

Wollensak model 5800 stereo tape recorder, walnut finish, xln cndn, new price, \$299.95. Best offer gets it. Fulbright, 944-8717 after 4:00 p.m.

Two-tiered, round ranch oak lamp table, \$25. Spanish swag lamp, \$5. Chimenti, 591-3897.

Clarinet B-flat, Selmar soloist, professional caliber instrument, used 2 yr by high school band student, xln cndn. Original cost \$285. Sale price is \$175. Rubenstein, 877-3288.

Standard size flat top guitar, \$15. Huss, HU2-7896.

Camper mattress, \$10. Two fender mount detachable mirrors for trailer towing, used twice, \$10 for both. 472-8208.

Fisherman special: 9.5 Evinrude outboard motor, runs and looks absolutely perfect, used 15 hours, cost \$450. Sacrifice, \$249. 877-4102.

Four G78x15 Goodyear Polyglas 8-ply tires, new, retail value, \$250. Sell for \$150. Donnell, 877-1746.

Volkswagen trailer hitch w/ 1 1/2" ball, \$15. 515. Donnell, 877-1746.

RCA Whirlpool dishwasher. Needs new timer, \$50. Donnell, 877-1746.

Exc. double bed, \$65. Dinette, \$35. Couch, chair and coffee table, \$45. Magnavox B/W TV, \$55. Sony tape recorder, Marar, 488-6027.

7 1/2 hp. Wizzard boat motor, \$60. 7 1/2 hp. Firestone boat motor, \$50. Both for \$100. Taylor, 487-2131.

Boat trailers—order and save. Ward, 591-2182.

NC-300 triple-conversion amateur radio receiver. Cost, new \$399. Sell for \$65. Witt, 667-2733.

Sealy mattress and spring box, x-tra firm, queen size, original \$220. Best offer. Chao, 591-4666 after 5:00 p.m.

Folding attic stairway, \$10. Mark IV auto air conditioner, best offer. Reim, 944-3795.

WANTED: Service (shop) manual for 1966 Mustang. Teixeira, 488-4412.

VEHICLES

70 Schwinn Continental 10-speed, 22-inch frame, xln cndn, \$90. Walker, 591-3719.

61 Falcon, engine recently rebuilt, new clutch ass'y, new generator & voltage regulator, new tires, xln 2nd car, \$385. Bass, 534-3890.

70 Suzuki 120 Cat Motocross/street, 2300 miles, xln cndn, \$325. Schisser, 488-3797 after 5:00 p.m., Mon thru Thurs.

Schwinn bicycle, boys 26 inch, one speed, middle weight, good cndn, \$20. Ramon, 488-1238.

55 Buick, standard transmission, still able to go to work every day, \$125. Lewis, 479-1197.

68 Honda 350 Hawk, electric start, needs repairs, \$200. Lines, 473-1332 after 5:00 p.m.

67 VW, good cndn, radio, heater, \$900. Erwin, 488-5981.

70 Kawasaki 90, xln mechanical cndn, 3600 miles, \$250. Henize, 591-3544.

65 Comet Callente, 4-dr, V-8, air, automatic, full power, xln interior, \$750 (June NADA, \$875). Waltz, 591-2286.

68 Volvo 142, green, AM/FM, good cndn, \$1650. Clancy, 941-0251 after 5:00 p.m.

63 Chevrolet 2-dr HT, air, auto transmission, power steering. One owner car, very clean interior, \$400. Arnold, 481-2890.

66 Mustang, V-8, A/C, auto, power steering, radio, good cndn, \$800. Hurgeton, 877-2673.

69 Olds Cutlass Supreme sports coupe, power, air, vinyl top, 4 speed. Briggs, 483-2041 or 649-1546 after 5:30 p.m.

64 Pontiac 9-passenger station wagon, loaded, cold air, 63,000, nice, \$495. Wright, 877-3059.

70 3/4-ton Chev. pickup camper special/20, power, air, 8-ply tires, cover, \$3200 value. Best offer. Tash, 534-3414.

Crew Interviews, Briefings going on

Wednesday, June 16 was the first day of a four-day series of prime crew interviews and back-grounder briefings for newsmen on the Apollo 15 lunar landing mission.

Scheduled activities have included a demonstration of the lunar surface TV system and familiarization sessions in the Apollo crew simulators.

Prime crewmen David Scott, Alfred Worden, and James Irwin will meet with the TV networks

BOATS

Lido 14 sailboats, where they are, condition, cost, and other information maintained by Lido Fleet. Hoover, 877-3366.

Sailboat, Gulf Coast 15 w/ main and jib. Galvanized tilt trailer, \$900. Toole, 877-2826.
15' trihull fiberglass boat rig, 75 HP Evin., beige/white. \$2900 new, \$1675. Croom, 944-5624, 877-3059.

Scorpion sail boats, fiberglass, board type, 13' 9" unsinkable. Order and save, list \$548. Ward, 591-2182.

PETS

Beautiful black and white kitten, free. Comes from a good line of mousers. Arndt, 482-3989.

AKC black female cocker pup, 9 weeks, temp. shots, \$55. Truly, 877-3220.

AKC-registered miniature schnauzer, 8 mo old, shots, wormed. Must sell prior to June 25, \$75. Bostick, 591-2289.

Buckskin mare, 7 yr old, very gentle w/ children, healthy. Streit, 482-1559.

AKC Scottish terrier, male or female, available mid-July, black-brindle color. Edwards, 471-1149.

Children's horse, gentle, riding equipment included, Bay Area Blvd. stables, \$200. Consider trade for trail bike. Bennett, 482-1960.

Good riding horse, gelding, \$150. Hand-made roping saddle, \$85. Bridle and reins, \$20. Huss, 482-7896.

AKC registered Irish setter at stud. Hunting stock. Baldwin, 877-4242.

REAL ESTATE & RENTALS

Seabrook, 3-2-2, large rooms (1700 sq ft), schools nearby, A/C, self-cleaning range, drapes, fireplace, landscaped patio w/ gas equipment, 6 1/2% VA, low equity. Kuhlenschmidt, 474-2319.

Cabin on 1/2 acre wooded lot near Conroe. Power and water, resort subdivision, \$6,900. Owner will finance. Ray, 944-4116.

Sale or trade 50' x 100' lot in Bayou Vista. Bulkheaded, on the water, save \$500. Brooks, 591-2017.

10 x 56 mobile home w/ 8 x 10 add-a-room, carpet, A/C, two storage buildings. Ruple, 481-3927.

4-2 1/2-2, brick, Old English in Wedgewood Village, built-ins, central air, 2500 sq ft, \$38,750. Streit, 482-1559.

League City, 705 Newport, 3-2-2, large family room, low monthly. C. Mayhew, 932-3971.

Beach house by the week or weekend. West Beach, Galveston. Green, 483-5111.

On Dickinson Bayou, beautiful 2-story Southern colonial, 4-2 1/2-2, formal L/D rooms, large family room, breakfast room, many built-ins, carpets, drapes, 2650 sq ft. Bass, 534-3890.

Clear Lake City, 3-2 1/2-2, convenient location, 2300 sq ft, 7% assumption. Basch, 488-4462.

Fairmont Park, 3-2-2, brick, central heat & air, large patio, drapes, fenced, low equity and assume 6 1/2% loan. Edwards, 471-1149.

Clear Lake City, 3-2-2, formal living and dining rooms, family room w/ fireplace, cul-de-sac, FHA appraisal \$27,600, equity \$5,500, balance \$20,900, \$182/month. Spurlin, 488-3745.

Pearland, 3-2, large paneled den, fireplace, deluxe built-ins, cul de sac, large fenced yard, 5 1/2% loan. Davis, 485-2905.

Nassau Bay, 4-2 1/2, Country French, wooded lot, new pool, two fireplaces, landscaped, assume or refinance. von Ehrenfried, 591-4163.

Brick, studio duplex, garage, 1 1/2 bath, carpets, central A/C, water paid, yard kept, sorry no children or pets. Heflin, 932-3816 nights.

For rent, luxurious 27' Dodge motor home. Completely self-contained or adaptable to external facilities, \$250 per week. Duke, 488-2786.

100' x 200' wooded (large trees) residential lot in Dickinson, Oak Hollow (Section 2) subdivision. Middleton, 482-1053 after 5:00 p.m.

Almeda Mall-Kirkwood-Beverly Hills, large new 3-2-2 for immediate occupancy lease, Spanish cathedral den, A/C, appliances, carpeted, fenced, patio, walk to schools, churches, shopping, \$230/mo. Johnston, 944-

OMSF defines Shuttle management

(Continued from page 1)

ments, such as total configuration and combined aerodynamic loads."

Both Marshall and Kennedy will locate personnel at MSC as part of the overall systems engineering and integration activity.

Robert F. Thompson, Manager of the Space Shuttle Program Office here, said after the announcement that the division of labor among the three field centers took into account the basic expertise of each and "the lines along which each center has classically developed."

An examination of funding for each segment of the Shuttle Program would seem to indicate that

there is a balance among the three centers primarily involved.

Thompson said that in addition to developing the Orbiter, MSC will have "significant program management responsibility to integrate the program with Kennedy and Marshall and to present the program to Headquarters."

The Space Shuttle, a reusable vehicle designed to carry payloads between earth and near-earth orbit, may be assigned such missions as deployment of unmanned spacecraft, satellite repair and retrieval, space rescue, and short-duration orbital science and applications projects.



BOARD MEETING—1971 officers of the Federal Government Accountants Association met recently to discuss activities for the upcoming year. The gentlemen (clockwise) are Charles Beckman, publicity chairman; Ray Walker, programs chairman; Lloyd Arnold, meetings chairman; Tom Stanley, president; Henry Fancher, vice-president; Ed Norris (Brown & Root), treasurer; Harold McGregor (Defense Contract Audit Agency), secretary; Leonard Kadowski (DCAA), education chairman; and Ray Kaufmann, publicity chairman. The Houston chapter of the FGAA meets on the third Tuesday of each month, September through May. For information on membership, call Charles Beckman, x2408.

NASA Aircraft are "retired"

The MSC Aircraft Operations Office recently transferred T33A, NASA 938, to Kelly Air Force Base, Texas.

This was the final Lockheed T33 operation conducted after eight and a half years of continuous use in the astronaut space flight readiness flying program and in support of various tests for the Engineering and Development Directorate.

MSC has had twenty-two T33 aircraft assigned at various times, with a normal complement of ten. Phase-out of T33A operations be-

gan when additional T38A aircraft were received.

The NASA T33 aircraft accumulated a total of 22,360 hours during their use here and were involved in no serious incidents, a commendable record for planes that were all 15 to 20 years old.

And their flying days are still not over, for of the ten aircraft transferred beginning in September 1970, three went into storage, six were transferred to Air Force flying units, and one was sent to Ames Research Center.



FAREWELL, OLD PLANE, YOU'VE SERVED US WELL—Standing in front of NASA 938 prior to its final flight to Kelly Air Force Base are (l. to r.) Astronaut Vance Brand, Roger Zwieg, MSC pilot; Bev Steadman, Houston Lockheed Corporation representative; and J. S. Algranti, Chief, Aircraft Operations Office.

AAS names 1970 Award Winners

(Continued from page 1)

of the Gemini Program, and as Manager of the Command and Service Modules for the Apollo Program."

Eight astronauts and former astronauts will also be installed as AAS Fellows at the June 29 awards dinner: Colonel Edwin E. Aldrin, Jr., leaving MSC on July 1 to assume command of the Air Force System Command's Aerospace Research Pilot School at Edwards Air Force Base; Captain Alan L. Bean; Michael Collins, now head of the Smithsonian's Air and Space Museum; Captain Richard F. Gordon; Fred W. Haise, Jr.; Russell L. Schweickart; Colonel David R. Scott; and John L. Swigert, Jr.

Dale D. Myers, Associate Administrator for Manned Space Flight, has been elected a Fellow in the Society, and Edgar M. Cortright, Director of Langley Research Center, will receive the 1970 AAS Space Flight Award, given annually to the person "who through his efforts has contributed the most to the advancement of space flight and space science."

REMINDER—Participants in and spectators at the softball games held in the MSC recreation area should take note of the trash cans near all of the ball fields. These containers are the proper place to put empty soft drink cans. Let's keep the recreation area clean.

and reporters tomorrow morning, the final event in the four days of interview and briefing activity.

Man's Adventures in Space move many to express admiration poetically

Man's dream of reaching out into deep space, his enchantment with serene beauty and mystery of the moon has inspired writers and poets for centuries.

From the simple Japanese *Haiku* (poem)
*Turning from watching
 the moon, my comfortable old
 shadow led me home.*
Shiki

to the elaborate science fiction writing of 19th Century French author Jules Verne in his *From the Earth to the Moon*, man has shown his fascination with the moon.

Since the beginning of the era of spaceflight, poets of such stature as Archibald MacLeish and Anne Morrow Lindbergh have been inspired to write about the powerful sight of liftoff and the thrill of seeing men walk on the surface of the moon.

Poetry, however, is not the province of literary professionals alone. Many people have found inspiration in the achievements of the American space program.

Leona Sheinberg, a resident of Houston who came to the United States at the age of 15, is now in her seventies. As a child, she occasionally wrote a poem, but only recently, through her enthusiasm for the space program, has she begun again to write poetry. Here is one of her recent efforts.

*NASA is a most famous place
 Where astronauts are readied for space;
 Where the most dedicated people in our land
 All work to give the astronauts a hand.
 There should be a song
 About the heroes and the throng.
 They all deserve recognition
 For their skill and ambition.*

Gudrun Pozdena of Odenwaid, Germany, and Adolf Sopper wrote lyrics and music for a song called "*Komm steige in mein Raumschiff*," translated "Come, climb into my space ship."

The lyrics recount some of earth's problems—"hate and envy, fear and war."

*Nevermore a quiet place for two,
 Noise and clatter overall,*

Then the writer looks to the distant future when space travel may be within reach of the average person, and says to his loved one:

*Come climb into my spaceship!
 Up there it will be glorious!
 Here on the old earth,
 It is now much too small for us.*



MOON CLOUDS over the Western Pacific—Gemini 7

*Let us wait no longer,
 I care for you so much..
 For your happiness,
 You only need a bit of spirit!*

Like so many people throughout the world, Ruth McCullough from Lancaster, Ohio was awed by the achievement of Apollo 11, the first lunar landing mission. This is the way she expressed her feelings.

*The once-thought highly impossible dream
 Of reaching the moon was by satellite seen
 And voices heard for all to know
 Apollo Eleven premiered "the moon show."
 In nineteen hundred and sixty-nine
 July the twentieth, the scheduled time
 The lunar module, Eagle, came to rest
 On the Sea of Tranquility, a fact to be blessed.
 Bravely Neil A. Armstrong descended with purpose
 And was first to touch the moon's surface.*



Earthrise over the lunar horizon—Apollo 8

*Edwin E. Aldrin, Jr. then eagerly climbed down
 Where cautiously they explored the unknown ground.
 As boot-treads stirred the long-silent dust
 Commander Armstrong voiced his thoughts to us
 "It's one small step for man,
 One giant leap for mankind."
 The life-giving system upon their back
 Weighed fifty-seven pounds in a neat pack.
 The moon's one-sixth gravity lessened the load
 Giving scientific duties a pleasure to unfold.
 In command ship, Columbia, Michael Collins alone
 Encircled the moon until Eagle soared home.
 After twenty-two hours and longer too
 Earthward-bound was the American crew.*

Ron Moyness of the U.S. Information Agency in Washington, D.C., wrote a poem which, with music added, could become a folk-ballad of the Space Age. It is called "Song of the Moon Men."

*We're riding down the moon beams
 On the splendid road to home
 We've seen what none have seen before,
 Where no one else could roam.
 We've set our hands in moon dust,
 We've gathered the lunar stone,
 We've opened a gate to Heaven
 And now we're headin' home.
 We've traveled to the rim of space,
 Where worlds have given birth.
 We've known the awful dangers,
 And we're headin' back to earth.
 Man's dreams have brought us to this place
 Cold in the shimmering skies,
 But man first found his star dust
 Back home in some darlin's eyes.
 So let love continue to guide us,
 Wherever we may roam,
 And make our land a happy place,
 The good old earth of home.
 For when all the words are written,
 And all the songs are sung,
 This lovely, crazy planet
 Will still be number one!*

Library offers new NASA publications

A number of new NASA Special Publications (SP Series) have come into the Technical Library, Building 45, in recent months.

Of special interest to many MSC engineers might be *Aeronautical Engineering — A Special Bibliography* (SP-7037) with its two supplements, SP-7037 (01) and (02).

Coverage in the bibliography includes documents on engineering and theoretical aspects of design, construction, evaluation, testing, operation, and performance of aircraft components, systems, and equipment. Articles on aeronautics, aerodynamics, and ground support equipment for aeronautical vehicles are also covered.

Performance and Dynamics of Aerospace Vehicles (SP-258) includes a series of lectures presented at Rensselaer in New York by Langley Research Center personnel. Topics are grouped under three headings: Aerodynamics of vehicles in various speed ranges, problems involving aeroelasticity and unsteady aerodynamics, and methods and applications of analytical techniques in dynamic stability problems.

Other new Special Publications in the library include *Cosmic Gamma Rays* (SP-249); *NASTRAN, A Summary of the Functions and Capabilities of the NASA Structural Analysis Computer System* (SP-260); *Preliminary Results from an Operational 90-day Manned Test of a Regenerative Life Support System* (SP-261); and *The Entry Plasma Sheath and its Effects on Space Vehicle Electromagnetic Systems*.

TEN YEARS AGO—From June 13 to 25, the Freedom 7 (Mercury Redstone-3) spacecraft flown by Alan Shepard on May 5, was viewed by approximately 750,000 visitors at the Rassegna International Electronic and Nuclear Fair at Rome, Italy.

EAA cancels dance

The "Sylvan Beach Splash," an Employees Activities Association summer dance announced in the last issue of the *Roundup*, has been canceled.

Problems in reaching agreement on contract terms with Precinct I, Harris County Commissioner's Office, which controls Sylvan Beach caused the cancellation.

EAA President Robert F. LaMere said in a letter to Association representatives that he hoped new procedures for setting up EAA contracts might be adopted which "will allow contracts for activities such as the dance just cancelled to be promptly written, reviewed, and signed off so that we may avoid the repetition of a last minute cancellation of a very worthwhile activity."



NEW EARTH OBSERVATIONS EQUIPMENT—John Sargent, head of the Data Applications Lab in the Earth Observations Division, checks out the 24-band multispectral scanner data analysis station. The scanner in the Earth Observations aircraft has sensors that record on magnetic tape. The tapes are then sent to the lab where they are turned into visual images as shown on the screen in this photo. Thermal pollution can be detected through the sensors, ultraviolet measurements for air and infrared measurements for water pollution. The new data analysis station will be used as part of the Skylab Earth Resources Experiment Package (EREP). On the screen in this picture is a view of Detroit. Bendix Corporation developed the analysis system.