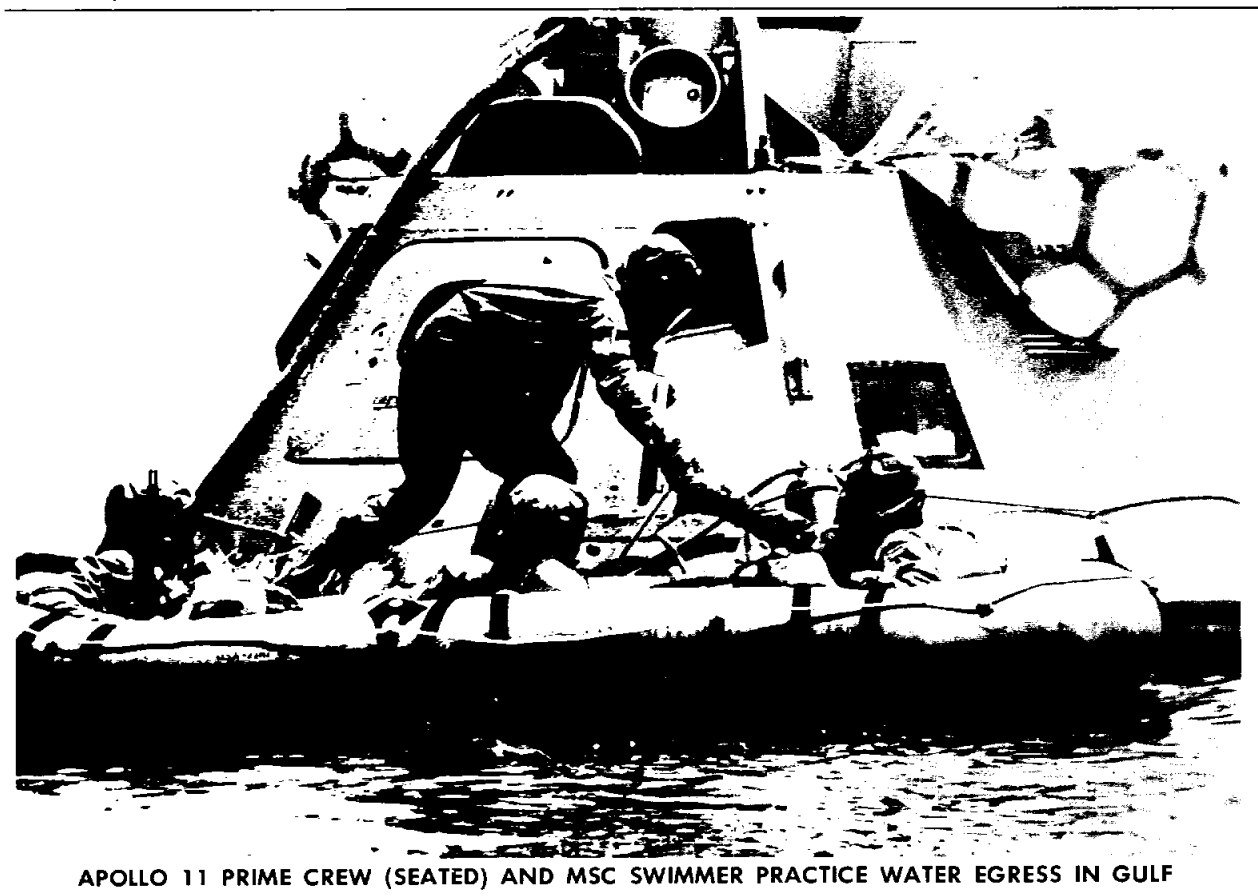
ROUNDUP

NASA MANNED SPACECRAFT CENTER HOUSTON, TEXAS

VOL. 8, NO. 17 JUNE 13, 1969



APOLLO 11 PRIME CREW (SEATED) AND MSC SWIMMER PRACTICE WATER EGRESS IN GULF
Biological Isolation garments worn here will confine crew between spacecraft and MQF

Apollo 10 returned navigation, site data

The flight of Apollo 10, which rehearsed every major maneuver in the flight plan of Apollo 11 except the actual landing, "accomplished every objective," said MSC Director Dr. Robert Gilruth at a press conference Saturday.

"It proved the functions of the spacecraft in lunar orbit, gave us data on the landing sites and on navigation in the Moon's gravitational field. Also, much was learned about crew procedures and their workload factors," he said.

The mission of Apollo 10 was to "sort the unknowns" in lunar environment before the first Moon landing, now scheduled for July 20.

While the decision to hold to that schedule is forthcoming, some of the considerations from May's flight which will influence the decision are being discussed.

One change to be made as a result of Apollo 10 will be a delay in the lunar module 5's descent orbit insertion for one revolution in order to pick up high bit data from the OMNI antennas through Goldstone.

Among the major "unknowns" to be checked by Apollo 10 were the condition of the proposed landing sites and the reliability of the tracking systems so necessary to a successful landing.

Much of this information on selected lunar geographical points will come from the mission's 2000 still pictures, 18 rolls of movie film and recorded observations by the crew.

Based on the results of the Apollo 10 landing system, flight planners feel they can target the LM5 right over landing site #2, prime target for the July effort.

However, another Apollo 10 discovery will have to be taken into consideration.

There is a Mascon, a dense concentration of matter, located in Smythe's Sea, which accelerated trajectory and caused it to pass about four miles south of the prime target.

This data is being analysed for a better understanding of the moon's shape and peculiarities.

While the debriefing and data analysis continue, the crew and spacecraft for Apollo 11 are being checked out for a July 16 launch from pad 39A at Kennedy Space Center.

Rehearsals for the all-important landing maneuver are being run as well as simulations of lunar surface activity.

Plans have also been announced for the first hand-carried American flag to be implanted on the lunar surface.

LRL prepares for first Moon-data assignment: preliminary examination of lunar rock samples

Throughout this week and part of next, Lunar Receiving Laboratory Personnel and visiting scientists are rehearsing the procedures necessary to receive and study data from the first lunar landing.

An unobtrusive building in the northeast corner of the Center will be the focal point of an elaborate scientific community for several months following the lunar landing.

Through its doors will pass "some of the most valuable scientific material man has ever owned," said Dr. Elbert King, curator of the LRL.

Approximately 50 pounds of lunar rock will be delivered within 24 hours to the well-equipped biological and chemical laboratories of the LRL.

From the rock samples, scientists hope to extract information on the age, origin of the moon and possibly on the chemical process that led to the origin of life.

The extensive quarantine precautions will be taken until such time as it is determined if there are any lunar pathogens or extraterrestrial organisms on the crew, in the equipment or in the samples, that might be harmful to terrestrial environment.

The Apollo Lunar Surface Return Container, or rock-box, is an air-tight receptacle into which crewmen Neil Armstrong and Edwin Aldrin will place the bulk lunar samples.

An attempt will be made to open the sample boxes on Earth in an environment similar to the environment on the Moon.

Therefore, the samples will be delivered into the LRL's system of vacuum chambers where most preliminary examination will be carried out.

Scientists will work with the samples, equipment and biological specimens through observer's ports along the system. These ports are fitted with arm-length rubber gloves to facilitate handling of materials.

Of first priority among the experiments are the time-critical tests such as radiation counting.

These tests will determine the Moon's history of natural gamma activity caused by cosmic ray bombardment.

The measurements must be taken quickly before the samples' radioactive properties fade.

Other samples will be photographed, weighed and cataloged before being sent through the vacuum chamber to the various laboratories.

Then innumerable tests – biological, geochemical, mineralogical, petrographic, etc. – will be performed by specially selected scientists.

In the biological laboratory, technicians will study the effect of prolonged exposure to lunar samples on birds, fish, insects, micro-organisms and germ free and normal laboratory mice.

More than twenty different species of plant life will also be tested.

(Continued on page 4)

Bond Drive ends

Today marks the close of the 1969 Savings Bond Drive at MSC.

At the end of the fifth week, employee participation had reached the Agency goal with 81.8% and was pushing toward the Treasury Department goal of 90%.

By mid-week five directorates had achieved 100% support. These included: Program Control and Contracts, Advanced Missions, Public Affairs and the Legal Office.

Three more directorates – Flight Safety, White Sands Test Facility and the Director of Administration – were above 90% participation.

TECHNICIAN LANDRUM YOUNG EXAMINES MOUSE THROUGH A PORT
White mice are germ-free specimens

DR ELBERT KING, MINERALOGIST, PHOTOGRAPHS SAMPLES
Binocular microscope manipulated through observer's port

THE ASTRONUTS

(filched from TRW Systems Group)

Co-op of Month

WHITE SANDS ENGINEER—Lanny McLaughlin, June's Co-op, was specifically assigned to assist in designing a prototype flash and fire apparatus, electronic control system. In so doing, he made several valuable changes in his supervisor's design "well beyond the expected competence" and performed "complex and difficult tasks that would normally be assigned to a graduate engineer with several years experience.

Civil Service Commission changes Federal Incentive Awards Program

Several changes in the government-wide Incentive Awards Program will become effective July 1 and are presently being incorporated into forthcoming MSC instructions.

These revisions are the result of an indepth study undertaken by the Civil Service Commission which indicated that the cost of the awards plus the cost of administration is in small proportion to the benefits received by the Government from employee achievements that go beyond job requirements.

The basic concept behind the award system is to reward useful employee suggestions and excellence in job performance.

Some of the more significant changes are as follows:

• Ideas relating to employee services or benefits, working conditions, housekeeping, buildings, grounds and routine safety practices will be handled through regular administrative channels as normal communications.

• To make the suggestion award more significant to the recipient and to the agency, the minimum award level has been raised to $25 and the minimum level of benefits required for an award has been increased to $250.

• Managers will systematically use their normal management review processes to identify operational programs that have had superior results and, when the areas of superior program results have been identified, they will initiate a positive management effort to identify and award individuals or groups whose efforts produced the favorable program results.

The intent is to have management initiate action toward awards where there is objective evidence of successful program achievement and thereby help reduce complaints of inequities, favoritism, etc.

• The term "Special Achievement Award" will be used to reduce the misunderstanding and overlap with various terms such as "Sustained Superior Performance Award" or "Special Act or Service Award".

• A government-wide scale for cash awards for superior job achievement has been set.

• A program has been established by which recognition may be granted to private citizens who have made useful contributions to the agency's mission or operation.

MSC instructions will include clarifying statements to assist supervisors in deciding between the use of a quality increase or a lump-sum award.

—Credit Union straight talk—

The MSC Federal Credit Union will pay its first semi-annual dividend on June 30. Previous dividends have been on an annual basis.

The dividend paid for 1968 was 5½% and indications are that this rate will continue.

Shares are at an all time high with $1,170,000 on deposit at the end of May.

This increase is due, in part, to employee payroll deductions. If you are not taking advantage of this service, visit the Credit Union and make the necessary arrangements.

The Credit Union also provides its members with free notary service, American Express money orders and travelers cheques, Savings Bonds redemption, loan insurance and loan counceling.

The Savings Plan is:

★ a "tax-free" education plan for children or grandchildren
★ A guaranteed return on your investment
★ protection against loss
★ tax advantage on retirement savings
★ a way to fight inflation
★ combined purchase — Bonds and Notes

Your Job in Focus

Channels open for protest

There are several published procedures through which employees may appeal certain personnel actions, air complaints and solve problems.

Adverse actions involving discharge, suspension for more than 30 days, furlough without pay and reduction in rank or compensation may be appealed through the NASA Appeals System.

Complaints and/or grievances involving job duties, working conditions or relationships may be processed through the MSC Grievance Procedure.

Classification of an employee's position may be appealed through the Position Classification Procedure.

The applicable procedures may be found in MSCM 3000, "Personnel Manual".

Additional information concerning these procedures should be requested from the appropriate supervisor. If the supervisor cannot supply the needed information, the Personnel Management Specialist servicing the element concerned should be consulted.

Handbook covers activity restrictions

It is a NASA policy to permit employees to participate in outside activities which are compatible with the duties and responsibilities of their government employment.

There are, however, certain guidelines and limitations when participating in activities as a private citizen.

These are outlined in detail in NASA Handbook 1900 1A, "Standards of Conduct for NASA Employees", which is furnished to all employees. Employees are responsible for familiarizing themselves with the contents of this handbook.

Included in the limitations set forth is a requirement for obtaining administrative approval before engaging in certain types of outside activity. Procedures for obtaining this approval are also included in the handbook.

All pertinent questions should be directed to Glen Brace, Personnel Division, X2358.

Secretary Assoc. invites applicants

The newly formed NASA Clear Lake Chapter of the National Secretaries Association has extended an invitation for membership to all qualified MSC secretaries.

The first thirty members, one of the largest charter groups, were installed in April and the chapter hopes to double its membership by the end of the year.

The association encourages secretaries to continue their education and to develop initiative and leadership abilities to help them compete in the field of the professional executive secretary.

Applicants must have at least two years secretarial experience, be working full- or part-time at the time of application, be willing to submit character references and pay the initiation fee.

The chapter meets on the fourth Tuesday of each month at the Sheraton King's Inn and the next meeting will be on June 24. Cocktails are served from 5 to 5:30 p.m. followed by dinner and the program.

Reservations for the June meeting should be placed with Jean Peoples of Computation and Analysis at X4788.

Additional information and applications can be obtained from Sue Long in the Nassau Bay National Bank at 488-4030.

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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.

Director ..... Dr. Robert R. Gilruth
Public Affairs Officer ..... Brian M. Duff
Editor ..... Karen J. Lumpkin
Staff Photographer ..... A. "Pat" Patnesky

FLIGHT OPERATIONS PERSONNEL EARN SUPERIOR ACHIEVEMENT AWARDS

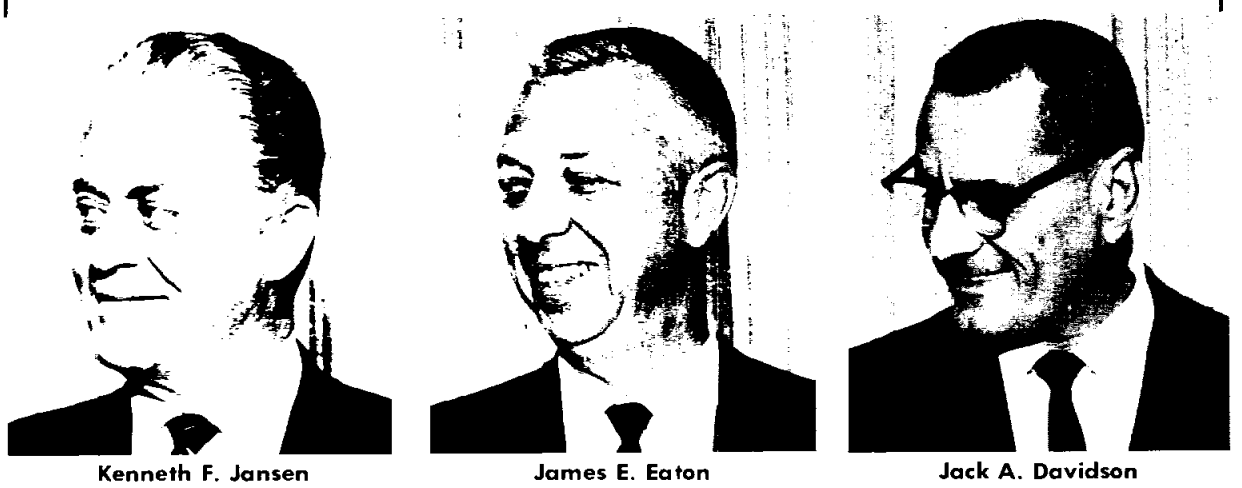
Ronald Berry
Mission Planning & Analysis

Robert E. Ernull
Mission Planning & Analysis

James D. McPherson
Mission Planning & Analysis

Larry J. Dugan
Flight Support Division

OUTSTANDING PERFORMANCE RATINGS



Kenneth F. Jansen
Downey Quality Assurance

James E. Eaton
Downey Quality Assurance

Jack A. Davidson
Downey Quality Assurance

Life grows in sterile lava—JPL

Completely sterile lava can hold out only a limited time against the invasion of growing things.

It takes between a year and 13 months for algae, fungi and tiny bacteria to start thriving in lava masses, a NASA soil scientist has discovered.

During a six-week field trip to volcano-torn Deception Island in Antarctica, Dr. Roy E. Cameron of the Jet Propulsion Laboratory, Pasadena, Calif., made the discovery.

Cameron and Dr. Robert Benoit found the microscopic evidence in the lava rubble near the center of the small island which was rent by volcanic blasts on Dec. 4, 1967.

They got out with their evidence just in time.

Shortly after the scientists left last February, the island was hit by a new eruption which forced evacuation of British and Chilean exploration bases.

Deception Island, only eight by ten miles in dimension, is at the tip of the Antarctic Peninsula which extends to within 1,000 miles of the southern tip of South America.

Cameron and Benoit, a biologist from Virginia Polytechnic Institute, brought back 19 samples of Deception Island soil containing microorganisms of some sort. Eight ounces of each sample are under culture to see what develops in JPL's soil science laboratory.

Cameron reported there was no visible plant life growing on the volcanic slopes. But marine algae were found within the three main craters on the island.

Most of the viable samples were gathered from around fumaroles (steam vents) where temperatures of 170 to 210 degrees, F. were recorded.

These contained minute, colored bacteria called thermophiles or actinomycetes, which adapt well to high temperatures.

Cameron and his co-investigator also collected gas samples and made temperature, humidity, wind and solar radiation measurements in their six weeks in the caldera, or volcanic heartland, of the lonely island.

Winds reached velocities of 65 to 90 miles-per-hour.

This research trip was sponsored by the National Science Foundation. The NSF also furnished a microbiological laboratory. While on the island, the scientists lived in an abandoned whalers' hut.

GE gets contract for gravity studies

An MSC-sponsored contract to design and construct a task panel for a study of the effects of the zero gravity space environment on man's capability to perform activities inside and outside a space vehicle has been awarded to General Electric Space Systems.

The $497,000 contract initiates a program to get quantitative infomation on man's capability for work in space.

Engineers will seek to provide a correlation between data supplied in the simulated zero gravity experiments and data taken during the subsequent Apollo Applications Program flights.

These comparisons will yield useful data on the "fidelity" of space simulations.

Men will perform assignments on the panel ranging from turning switches and replacing modules to performing precise hand movements and maintenance and repair tasks.

Spaces still left on European trip

There are still a few spaces available for NASA and NASA-contractor employees who would like to make last-minute reservations on the Get Acquainted with Europeans tour of Europe.

The group will leave August 3 and return August 24. A fare of $655 from New York or $790 from Houston includes: round-trip air travel to Europe; bus and boat tickets; guide service and lodgings with private baths and continental breakfasts.

Financing is available. For more information contact Jim Hollis at X5891 or 946-6571.

High school, college students from area hired for summer

One hundred and ten high school and college students have been hired for the next three months to work at MSC, White Sands and Downey in cooperation with the NASA-wide Summer Aide Program.

MRS. HENRY

Mrs. Marva Henry, Texas Southern honor graduate and junior high teacher, will coordinate the fourth annual Youth Opportunity effort.

In addition to the students' office work, Mrs. Henry has planned several mass meetings and seminars. Among these will be lectures by professionals from different vocational areas and programs explaining financial aid and college scholarships.

Roundup Swap-Shop

(Deadline for Swap-Shop classified ads is the Friday preceding *Roundup* publication date. Ads received after the deadline will be run in the next following issue. Ads are limited to MSC civil service employees and assigned military personnel. Maximum length is 15 words, including name, office code and home telephone number. Send ads in writing to *Roundup* Editor, AP3. Ads will not be repeated unless requested.)

REAL ESTATE

West Galveston Island beach house, gulf view, all electric, 1 block to water, sell or rent, Green, 932-3486.

Baywood, Seabrook 4 bdr, wooded lot, 200 sq ft, pier privileges, $26,000 equity, assume 6½% loan or finance, Stamps, 474-2374.

Taylor Lake corner lot, wooded, lake view, ½ block to park & docks, R. Waite, 591-4632.

Nassau Bay 4-2-2, fenced, assume 6% loan, X7256.

Clear Lake City townhouse 2-1½, carport, patio, owner, sell or rent, R. Stallings, 483-5341 or 488-0577 after 5.

Nassau Bay, Queen's Court townhouse, 2-1½, screened patio, furnished or unfurnished, pool, no maintenance, D. Hagge, 622-3236.

Houston 2 bdr, built-ins, 5515 Woodlark, lease, $125/mo, $50/deposit, F. Porter, 695-9038 after 6.

Friendswood 3-2-1, carpets, central air, built-ins, firm $3000 equity, assume 6% GI, $123/mo, 482-1473.

Seabrook (Miramar) 3-2-2, paneled den, carpet, central A/H, built-ins, fenced, assume 5¼%, $120/mo, immediate occupancy, Culling, 479-5722.

Miramar 3-2-2 all brick, landscaped, fenced, $17,000 or $2000 equity, assume 6% FHA, $136/mo, immediate occupancy, Grayson, 488-0616.

Seabrook 4 bdr, 1½ story, patio, schools, $1000/down, $2500 2nd loan, balance $18,850 at 6½%, $213/mo including 2nd, R. Bossen, 474-3430.

BOATS

15' Albatross, fiberglass, 64" beam, centerboard, main & jib sails, galvanized trailer, $1000, P. Maloney, 482-7688.

17' fiberglass boat w/windshield, 40 hp Johnson electric, trailer, $650, V. Shields, X3566, 422-8404.

15' sailboat w/trailer, new, loaded w/extras, 487-3927.

AUTOS

68 VW sunroof sedan, radio, red, black vinyl interior, $1550, J. Sutton, 932-3979.

66 Simca GLS 1000, 4-dr, full financing arranged, $775, consider trade, F. Turner, 733-7667.

65 Allstate Mo-Ped, motor in good cond, $50, D. Murphy, 479-1942.

68 VW sedan, radio, whitewalls, vinyl interior, $1450, A. Thies, 932-5245.

66 MGB convertible, 3-wk-old paint, wire wheels, travel rack, make offer, M. Powell, 946-5430 after 5.

66 Simca 1000, 4-dr, 32 MPG, 24,000 mi, first reasonable offer, R. Lindemuth, 482-1086.

63 MG 110 body, no motor, good cond, 932-2976.

64 Malibu SS, 2-dr HT, 4-speed, owner, good cond, $1095, E. Chambliss, 483-2983.

66 Impala, recent tuneup, good cond, 46,000 mi, air, power steering, $2000, Peterson, 223-0857.

68 Ford Cortina, 25 mi to gal, excellent cond, M. Powell, 946-5430 after 5.

68 GTO, automatic, air, AM/FM stereo, loaded, $2950 firm, S. Spaeth, X4341, 944-3170 after 5:30.

62 Galaxie, air, new auto trans w/6-mo guarantee, $495, 785-5915 nights & weekends.

65 Chrysler Newport, power, air, electric seats/windows, $1095, 946-4752.

67 Mustang fastback, air, standard, 24,000 mi, like new, J. Tracy, X3332, 932-4511.

69 LeMans, fully equipped, sacrifice $1500 equity for $500, refinance, must sell, J. Hergert, 932-5825 after 5.

65 Olds F85 4-dr deluxe, power, air, automatic, clean, owner, A. Brady, 877-4801 nights & weekends.

64 Valiant, radio, heater, air, standard, good tires, $575, 946-4752.

66 Porsche 911, 14,000 mi, new radial tires, AM/FM, deluxe interior, R. Schweickart, 591-2439.

61 Peugeot 404, 4-dr, very economical, $350 or consider trade for boat & motor, T. Slezak, 477-2803.

PETS

Free kittens, born 4-28, N. Schultz, Baytown, 422-5636.

German Shorthair Pointers, excellent hunting and/or show stock, whelped 5-4, R. Reining, 946-6396.

Silver Persian kittens, ACFA, V. Swenson, 487-2326.

Free kittens, born 4-18, adorable males & females, F. Dvorkin, X4320, 482-7957.

Riding horses, ideal for trail rides & inexperienced riders, W. Smith, Alvin, 658-4957.

Registered English Setter Bird Dogs, hunting stock, 8 wks old, papers, shots, wormed, females $50, males $65, W. Whipkey, 482-7012.

Free kittens, all black, nice pets, J. Rodman, 932-2897.

Old English Sheepdog puppies, available mid-July, $250 ea, 944-3634 after 5.

MUSICAL INSTRUMENTS

Wurlitzer piano, 47", excellent tone, in tune, bench, $225, Messenger, 471-1079.

Hammond Extravoice organ, walnut cabinet, bench, pointer system, like new, excellent for beginners or home enjoyment, $400, Vernon, 877-1450.

Baldwin piano, acrosonic console, English 18th century, walnut finish, elegant, Marnock, Nassau Bay 591-3789.

Hagstrom 6-string electric guitar w/vibretto, excellent cond, cost $200, now $85, J. Atkinson, 932-3664.

Upright piano, good cond, fine practice instrument, $100, 932-4068.

Regal guitar, new nylon strings, perfect for beginner, $25, Hardy, X5231, 591-4573.

Martin alto saxaphone w/case, $125, Messenger, 471-1079.

HOME FURNISHINGS

3-piece corner sleeper couch set w/table, $100 or best offer; modern walnut dining table w/leaf, $40 or best offer, J. Bates, 944-4687.

Plush pink nylon carpet, 10' x 10' 4", separate pad, excellent cond, both $30, J. Cohen, 488-3171.

Sears Coldspot air conditioner, 6500 BTU, excellent cond, $75, B. Law, 944-7596.

Roll-away bed, heavy black wrought iron w/mattress, will adjust 2 positions, $10, P. Carlisle, 932-2836 after 5.

Couch, 8' long, blue, excellent cond, $70, Nancarrow, 946-5075.

MISCELLANEOUS

Rolleiflex 2.8F/120-220, 80mm Planar, E/R case, penta prism, pistol grip, Roleikin 2.8, closeup lenses, more accessories, $550 tales all, M. Callaway, 748-6600 X338.

67 Suzuki 250cc, 3500 mi, like new, electric start, spare parts, helmet, $400. E. Thomas, League City, 932-4787.

Jacobson Reel lawnmower, self-propelled, 21" plus catcher, 1 yr old, cost $185, now $95, J. Cohen 488-3171.

18' Travelmaster vacation trailer, like new, self-contained, D. Johnson, 483-7642 weekdays, 935-6218, LaMarque, weekends.

Brother zig-zag sewing machine, $60; Royal Electric typewriter, good cond, $85, Ritterhouse, 471-2066.

Four F 70-15 wide boot Goodyear whitewalls, J. Whiteley, 946-3804.

Honeywell Pentax camera w/exposure meter, soft leather case, $120, J. Ragan, 483-2891, 487-0408.

Infant articles: port-a-crib, $12; electric 8-bottle sterilizer, $4; swing-a-matic, $5; H. Brasseaux, 877-1719.

Heron truck camper/canopy, jalousie windows w/screens, McAnelly, 926-7140.

Bikes: 24" boy's, $10; 24" girl's, $10; 20" girl's, $10; J. Rodman, 932-2897.

Sunbeam electric lawnmower w/heavy cord, practically new, $35, J. McCown, 471-0716.

Mink stole, autumn haze, $175; refrigerator $50; large easy chair $40; large freezer $200; 7x35 binoculars, new, $20; 649-2569.

Antique mantle clock $45, excellent cond; Nesco cooker & stand $25; manual adding machine $30; 649-2569.

Twin-stroller, $7; Cosco new playpin, $6; Zenith stereo, $25, 474-2049 mornings only.

WANTED

Need 4-bdr home, June, NASA area, owners only, C. Rice, apt 45, #1 Portofino Strip, Houston, X2901.

Sensibly-priced Clear Lake City brick home, 3-2-2, den, fireplace, assumption & low equity desired, 488-0125.

Lionel electric trains made before 1960, C. Naegeli, 932-4171 after 5.

Good 9 x 9 umbrella to 10 x 8 wall tent, waterproof w/floor & screens; also, 12'-14' flat-bottom boat, J. Bullard, 877-4155.

Two steamer size trunks, suitable cond for overseas travel, R. Nugent, 488-3136.

Girl to share large 2-bdr apt for summer in Houston, K. Lumpkin, 524-2732 or X5111.

Headquarters management intern needs place to stay while on assignment to MSC, 6-28 to 8-16, D. Strother, 202-962-2814.

Clear Lake City 4-2-2 home, will finance or assume, owners only, R. Wieland, 488-2593.

Inexpensive bedroom suit to refinish, modern lines; modern chair for re-upholstering, Bristow, 485-2219.

Used baby bed & play pen, Leota, 483-5171.

Male roommate to share 2-bdr, 2-bath bay house, S. Grega, 591-3622 after 6.

Girl to share apart in NASA area, J. Pollack, 488-3530.

Exchange Council grant given to Junek, Wilkins

For the third year the Exchange Council presented two children of MSC employees with four-year college scholarships.

Nancy Junek, daughter of Fred H. Junek, Technical Services Division, will be a freshman Math major at the University of Houston in the fall.

Ralph Wilkins will study Theology at Baylor. He is the son of Sammy Wilkins, Apollo Office.

Don Gregory, Exchange Council chairman, awarded each student $300 a semester for a maximum of $2400 over a four-year period.

The scholarships are given each year to single dependents of MSC personnel and are based on high school academic standing and financial need. They may be renewed each year providing grades and financial status remain within the stated guidelines.

The Exchange Council is presently assisting five students toward their baccalaureate degrees.

NANCY JUNEK, RALPH WILKINS RECEIVE EXCHANGE COUNCIL SCHOLARSHIPS
Don Gregory, Council chairman, presents 4-year grants to children of NASA personnel

LRL—

(cont. from page 1)

The Physical-Chemical Laboratory will take pictures, classify elements—minerals, gases and identify properties of their samples using various types of equipment: microscopes, spectrographs, gas reaction apparatus, separators and magnet detectors.

These preliminary tests and screenings "are made so as to accomplish the most intelligent distribution of samples to the scientific community after the quarantine period," said Dr. King.

One hundred and forty principal investigators have been chosen to carry on the detailed, precise analysis of the materials after their release from MSC's LRL.

Task Group named for Space Stations

The Space Station Task Group to manage contractor and inhouse studies associated with a manned space station and space shuttle has been established at MSC.

This group, and a similar one at Marshall Space Flight Center, will be involved in the preliminary design and planning of a 12-man Earth-orbital space station, scheduled for 1975 and envisioned as the initial element of a large space base.

Appointed as task group manager is Rene A. Berglund who is also manager of the Advanced Projects Office in Advanced Missions.

Berglund, originally assigned to the Langley center, was responsible for one of the first research programs considering a manned space station. He also holds a US patent for space station design.

Named as deputy manager is Jack C. Heberlig, formerly chief of the Planning and Control Office in Engineering and Development.

Robert T. Everline will serve as assistant for the space station and J. Thomas Milton as assistant for the logistics spacecraft.

Representatives from different MSC directorates have also been named to the task group. They will remain with their line organizations providing specialized inputs and coordinating supplementary studies.

These assistants are: Ralph D. Hodge, Engineering and Development; A. Harry Davidson, Flight Crew Operations; Rodney G. Rose, Flight Operations; Anthony W. Wardell, Flight Safety; Junius B. Fox, Reliability and Quality Assurance; Dr. Waylund E. Hull, Medical Research and Operations; Marvin Cohn, Science and Applications and William M. Chastain, Program Control and Contracts.

Ruby J. Summers of Advanced Missions is the task force secretary.

The group, along with MSFC and Headquarters personnel, is currently reviewing proposals for two contracts, totaling $5.8 million, to be awarded in August.

New 'talking' computer reorganizes Technical Library, reduces errors

Librarians in the MSC Technical Library have recently replaced their stacks of punched data cards with a more personable circulation system—a computer that "talks" to them.

The progressive new on-line system for controlling circulation records allows information to be stored directly on the drum of a Univac 418 computer in a random mode, where it can be recalled instantaneously as needed.

A unique feature of the mechanized operation is the dialogue between the library technician and the machine.

Input to, and output from, the computer is done on a teletype machine located behind the circulation desk. Technician and computer run through a series of questions and answers similar to the process below:

The librarian feeds in a request to chargeout. The computer will ask first for the accession number of the book—which is given. Then, the call number of the book is verified and the computer requests the borrower's name, mail code and the last day of the loan period.

After all the information has been fed, checked and okayed, the process is repeated with the next borrower.

Several chargeouts, turnins or inquiries can be made within a 60-second interval by an experienced operator.

In addition to its routine tasks, the computer will inquire concerning the current status of any book or group of books; feed information concerning the books charged to any user and reserve books for future use.

The system will also automatically refuse service to users who have been placed on the library delinquent list.

This new chargeout process will greatly reduce the possibility of human error since the input goes directly into the computer rather than through several technicians. Mistakes will not go unchallenged as they did in the key-punch system.

For example, the machine will stop any attempt to circulate a book which is already charged to someone or to assign the wrong accession number to a book.

As library technicians become more familiar with the new system, it is expected that the process will not only be more accurate but will save many man hours of work at the circulation desk.

Viking Program landing system contract awarded

NASA has awarded a contract for the Viking Lander System and for the technical integration of the project to Martin Marietta Corporation of Denver, Colorado.

NASA plans to award a cost-plus-incentive-fee/award-fee contract for approximately $280,000,000.

Viking's principal goal is to send two instrumented spacecraft—each consisting of a lander and an orbiter—to the planet Mars during the launch opportunity which occurs during the summer of 1973.

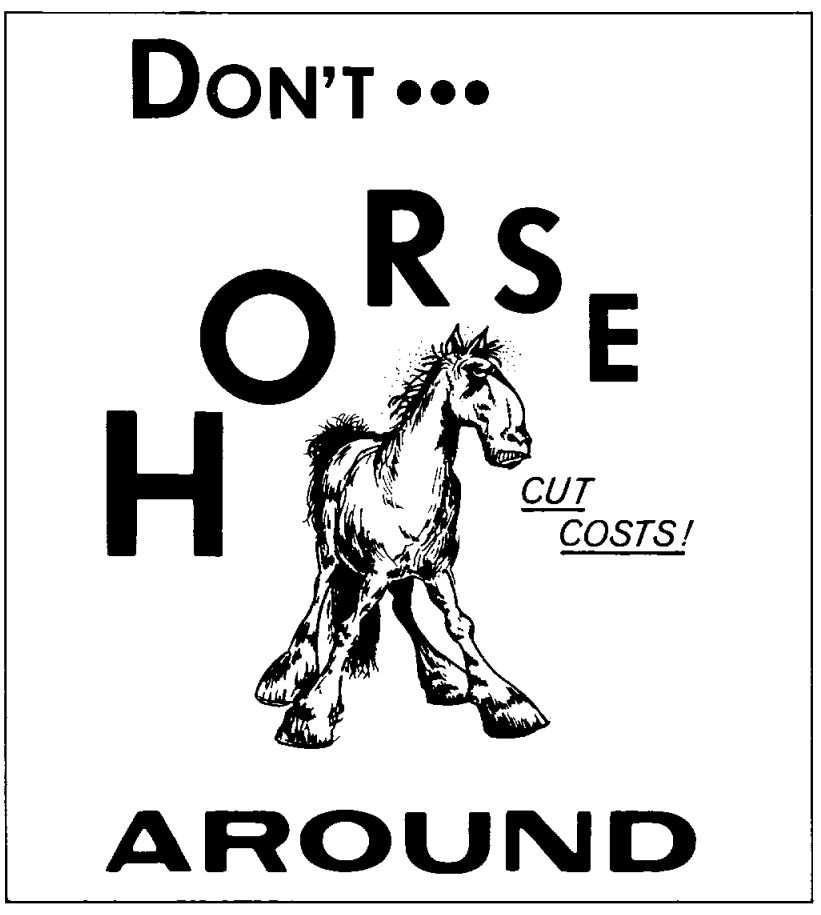
On arrival at Mars early in 1974, the lander portion of each of the two spacecraft will descend to the surface.

Detection of life is a particularly important objective of the lander.

The orbiter portion of the Viking crafts will circle Mars to provide reconnaissance, communications support for the lander and to gather scientific information from orbit.

Viking is NASA's most advanced project in a series of scientific spacecraft for exploring Mars and will make the first soft landing on the planet.

Viking flight planners hope to benefit extensively from information obtained by the Mariner 1969 spacecraft scheduled to fly by Mars this summer, and from the Mariner 1971 orbiter flights being developed.



news from around

JET PROPULSION LABORATORY—JPL has announced plans for two three-planet Grand Tours, scheduled for the late 1970's.

The first would fly by Jupiter, Saturn and Pluto, the second to Jupiter, Uranus and Neptune in the most far-reaching space missions yet conceived by man.

The flights would take from eight to eleven years each.

The best outer planet alignment in 179 years will occur during the time period from 1976 to 1980.

The infrequency of such favorable alignment is due to the slow movement of the outer planets about the sun.

KENNEDY SPACE CENTER—The next NASA launch from Cape Kennedy will be a two-stage Delta rocket carrying a biological research spacecraft, Biosatellite D, with a highly-instrumented pigtail monkey.

Intensive experiments will be performed on the chimp to record the mental, emotional and physiological processes of a man-like mammal during a two-week weightless orbit.

Experimenters believe the mission will be one of the most intensive studies ever made of a complex living organism.

LOCKHEED PROPULSION COMPANY—Lockheed has just completed a study involving a gun-launch technique which could, if successfully developed, replace multi-stage rocket vehicles at a cost reduction of 75%.

The reusable gun would serve as the first stage of a propulsion vehicle and is being developed with a liquid suspension system to eliminate damage to the spacecraft.