

Last day for
Egg Hunt
Tickets

ROUNDUP

NASA MANNED SPACECRAFT CENTER

HOUSTON, TEXAS



Apollo 13 Crew
Press Conf.
Tomorrow, 9am

VOL. 9 NO. 10

MARCH 13, 1970

Bloodmobile to visit MSC March 25 & 26

Wednesday and Thursday, March 25 and 26, will be the days when the Bloodmobile comes to MSC. The Blood Services of

Houston vehicle will be at Building 8 from 9 am until 3 pm each day.

If you weigh at least 110 pounds, are between the ages of 18 and 60, and do not have a history of jaundice, syphilis, t.b., heart disease, epilepsy, rheumatic fever, fainting spells, head injury, convulsions, kidney disease, severe allergy, abnormal bleeding, drug addiction, diabetes, recent major surgery, pregnancy, malaria, immunizations (and/or medicine for an illness), severe injury, alcoholism, prolonged fever, tauto, excessive weight loss, persistent cough, chest pains, shortness of breath, edema, severe cold or sore throat, skin disease, arthritis, hay fever or asthma, or contact with hepatitis, you will be eligible to become a participating member of the Blood Bank.

In addition, there must have been an interval of at least 8 weeks since you last gave blood.

Experienced Blood Bank personnel will perform other tests to be sure that you can give blood with no ill effect.

As a participating member in the Blood Bank, your hospital will be repaid in full for any blood required by you, any member of your close family, or a friend or relative, if you so designate.

Enroll your whole family for the Bank's benefits by giving just one pint on Wednesday or Thursday. Your absence from work will be an excused absence.

Lester Wynn, x5293, and Barbara Freeman, x3296, are coordinating the Bloodmobile visit to MSC. Call them if you have any questions.



Kathy Cannon, of Lockheed Electronics, steps right up to the Bloodmobile.

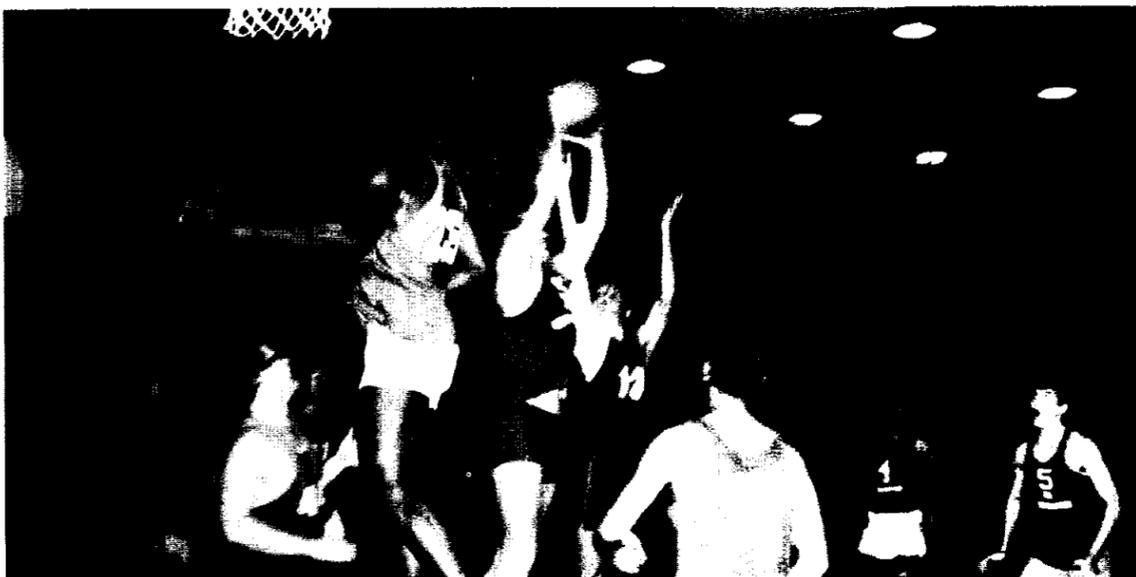
Bloodmobile helps in many ways. The following letter of appreciation serves as a reminder that your blood donation may give life not only to members of your own family, but to people like Debbie, too.

MSC Blood Bank
NASA Rd. 1
Gentlemen:

I would like to thank you for the blood you sent to M. D. Anderson Hospital for my daughter, Debbie. It was very considerate of you. Debbie was a patient at Anderson for 2½ years and during that time I often heard that "blood is life to the cancer patient" but I did not realize how true that is until she entered the hospital for the last time in August. She received blood many times before she died on November 12 and I know she would not have lived that long without it.

Thank you very, very much.

*Sincerely,
Pally Kay*



The camera couldn't stop the action in this photo of the playoff battle between FCOD No. 1 and The Association. Players, from far left to right, are: L. J. Corcoran, Terry Neal, Dave Turner, Gene Ricks, Tom Keeton, Gid Weber, Al Morrey, Phil Shanahan.

Apollo 13 site promises new Lunar data

The planned exploration of the Fra Mauro site on the Moon by Apollo 13 astronauts could provide scientists with their first lunar material from deep within the Moon, perhaps from 62 miles below the Moon's surface.

If scientific interpretation proves correct, the Fra Mauro formation includes materials ejected from Mare Imbrium (Sea of Rains) as a result of a major impact event which long ago created the circular Mare Imbrium basin.

One theory on the formation of Mare Imbrium is based on a major impact event, perhaps the in-fall of a smaller moon, which was swept up in the primordial evolution of the Moon. Accordingly, rocks from the Fra Mauro formation should predate rocks returned from either the Apollo 11 or Apollo 12 missions and be close to the original age of the Moon.

HILLY REGION

The Fra Mauro landing site is in a hilly, upland region and the Apollo landing there will be the first to other than a lunar mare area.

Five scientific experiments will be placed on the lunar surface by the astronauts. A sixth experiment will be deployed and then returned to Earth by the crew for analysis.

After completing their normal mission functions, the Saturn V rocket's third stage and the spacecraft lunar module ascent stage will be intentionally impacted on the Moon to produce lunar seismic events. These events will be recorded by seismometers on the lunar surface and signaled back to Earth for analysis.

The Association nabs trophy

The Association took the trophy in the MSC-Contractor Basketball Tournament, beating the second-place FCSD team by a score of 55 to 45.

High scorer for the Association during the second half of play

tion was Gib Weber, with 16 points. He led the Association during the second half of play. Phil Shanahan, with 13 points, and Al Morrey, with 10 points, were top players during the first half.

The FCSD team made a good showing, with Terry Neal as leading scorer, and Dave Turner as a standout on defense.

Other team members were: Association: Gene Ricks, Ken Young, Lee Norbraten, Richard Kruse, Larry Ratcliff, Ken Westerfeld, and Tom Keeton. FCSD: L. J. Corcoran, Dave Worley, Bert Davila, Gary Hanisch, Gary Doerre, Scott Millican, and Dave Walker.

Harold Miller wins DeFlores Award

Harold G. Miller will be honored Monday night for his contributions to aerospace training by the American Institute of Aeronautics and Astronautics (AIAA) at its Honors Banquet in Cape Canaveral, Florida.

He has been selected to receive the De Florez Award, given annually for "an outstanding improvement in aerospace training." The Award includes a certificate and an honorarium of \$500.

Recognizing that more than classroom lectures would be necessary to familiarize flight controllers with all phases of both nominal and contingency space flight missions, Mr. Miller has directed the creation of an integrated program called Simulation, Checkout, and Training. This system was initiated during Mercury and used on all Gemini and Apollo missions.

The System originated by Mr. Miller uses highly sophisticated computing systems, and provides math models for the various vehicles and ground support facilities involved in a mission. Launch and abort procedures, orbital maneuvering and rendezvous procedures, re-orbit and re-entry procedures, possible malfunctions and contingency situations can all be simulated under varying circum-

stances prior to the actual flights. Flight controllers and flight crew can thus be trained as a unit, through tie-in of the Flight Crew Trainer, Mission Control Center, and remote site flight controllers into a common real-time mission environment.

These contributions to flight controller training have been singularly effective. The DeFlores award which the AIAA will present to Mr. Miller echoes the high esteem in which he is held here at MSC, and elsewhere in the field of aeronautic and astronautic training techniques.



Harold G. Miller



"That's what we want, 100%, pert Cheryl Bouillion says about the NHA-ISA health drive which begins March 16. You will be getting your contribution envelopes and literature describing the 17 participating agencies soon.

James McLane: A test facility pro

"Let me just say that business is booming at the SESL. In spite of some sizeable personnel cuts we're handling a bigger test load than ever before."

That's the kind of pride the Manager of the Space Environment Simulation Laboratory (SESL), James C. McLane, Jr., has in his organization. His official title is "Chief, Space Environment Test Division", a position he has held since 1967, when the SESL was still part of the Structures and Mechanics Division.

He credits the experience which the engineers and technicians gained on tests for Apollo with a lot of his Division's present capability to support test schedules. In addition, McLane and his troops stay on the lookout for cost and time-saving modifications which could be made to the giant facility.

The man who manages what is "undoubtedly the most sophisticated facility of its kind—the most advanced operational, high-quality, man-rated environmental chamber anywhere", came by his job naturally. A Bachelor of Civil Engineering from Clemson, seasoned by experience with the Air Force started him off with an interest in the engineering aspects of aerospace.

In 1948 he joined the Langley Laboratory of the NACA, as part of its Construction Engineering Section, where he spent 3 years designing wind tunnels and test facilities before transferring to the Army Corps of Engineers. As a civilian Design Engineer at the Arnold Engineering Development Center which the Corps was building for the Air Force, he went from Section Chief to Branch Chief in designing test facilities.

Then, in 1960, the Air Force became interested in a space facility environmental chamber of a magnitude and complexity never before attempted. McLane became the head of the Design Branch planning this facility. The project, called the "Mark II" space facility would have been an environmental simulation chamber 200 feet in diameter (dwarfing the 65' diameter Chamber A here at MSC), and would have cost \$186 million. Extensive research and de-



velopment was carried on, to advance techniques such as solar simulation and cryogenic pumping (techniques later used to the advantage of the government here at MSC).

Funding for the project never materialized, however.

In 1963, McLane came to MSC as Technical Assistant to Alec Bond, of E. & D. He served in this capacity until a "Lunar Receiving Laboratory Office" became necessary. Then he joined the group charged with defining design requirements for the new facility. When the LRL was out of the development stage, McLane moved back to the E & D Directorate Office, then to the Structures and Mechanics Division as official Chief of the SESL.

See story on the SESL this page.

Now, of course the facility is built; but it never stops changing. Planned tests of the Skylab ATM in support of the Marshall Space Flight Center have imposed new requirements for cleanness. The Division has had to provide new instrumentation to measure contamination and new traps and ventilation techniques to make the Chamber A a fully qualified Clean Room, in addition to its other test capabilities. Then too, there are the constant attempts to upgrade the facility, to re-

duce maintenance time costs, and to see that the outstanding safety record will continue to hold.

All of this effort is of course time-consuming. About 12 man-hours are required for planning, preparation, and maintenance of the facility, for every man hour which the facility is used in actual test operations. Coordination of this effort must be flawless as well as timely. Thus McLane's job, now largely managerial, is more than enough to keep him busy. He says that even though he likes golf, and lives right on the course at Clear Lake City, he hasn't had time in years to play.

Would he like to be back in the P-51's and out of this continually changing, demanding job? Not on your life. Says Jim McLane, "I wouldn't have it any other way!"

More coverage for your family

Don't forget to consider the features offered by the NASA Dependents Life Insurance Plan. If you have not already enrolled you should have received a brochure describing the plan. If you are interested in this additional coverage but have not gotten the materials describing it, call Mrs. Rasberry, x5410.

John W. Small leaves NASA



John Small has left his position as Assistant Director, Space Station Task Group, effective March 12. He will become Chairman of the Board and Chief Executive Officer of a firm working on surveillance of water and air pollution.



Test Manager for the STB tests in Chamber A of the SESL, Howard Green, (left) discusses preparations for testing of the "cake-lid" shaped Subsystem Test Bed and the heat pipe suspended over it with Kenneth Idomir, STB Program Manager, and Bill Jones, on the right, representing the Structures and Mechanics Division. Richard Bullock, not present at the time the picture was taken, is project engineer for the heat pipe experiment.

SESL / STB / Heat-Pipe undergo workout

The Subsystem Test Bed (STB), an experimental, low-cost spacecraft which will be used to test advanced systems and subsystems, and a novel device called a "heat pipe", have been undergoing the temperature and vacuum extremes of space right here on Earth.

Tests were begun this week in the 65' diameter, 120' high chamber A of MSC's Space Environment Test Division, and are planned to last a total of 257 hours. The two pieces of hardware will be subjected to temperatures ranging from -100°F to +230°F, and to a vacuum equivalent to that almost 100 miles above Earth.

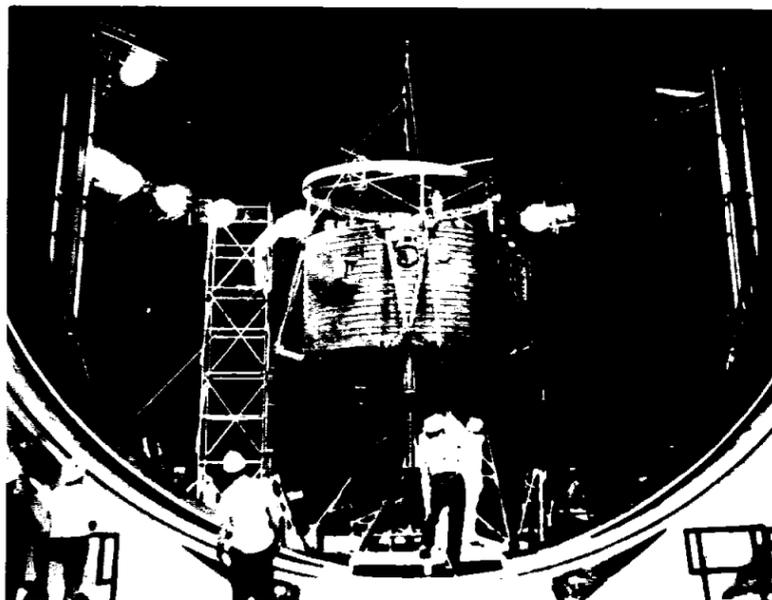
Correlations will be made between results from similar tests on smaller scale models of the STB, and with mathematical predictions in order to verify that smaller, less expensive scale models may be used in future vacuum chamber tests.

The cake-lid shaped STB module has already completed static launch load tests, docking and thrusting load tests, and leakage and pressure tests before going

into the current thermal-vacuum test series.

The heat pipe will be proving its ability to control the temperature of future space vehicles. Present spacecraft have posed a problem for maintaining proper internal temperatures. They tend to receive large heat inputs from the sun on one side and radiate heat rapidly into space on the other side. The heat pipe may be the answer to this tricky problem of thermal control in space vehicles. The heat pipe is basically a hollow tube containing a fluid. The fluid absorbs heat until it reaches its vaporization temperature. The fluid vapor can then be transferred uniformly and efficiently to the coolest area of the pipe, where it can be radiated or made to do useful work. The temperature throughout the loop of pipe remains more or less constant, based on pressure and type of fluid in the pipe.

Two such heat pipes are supported above the STB in chamber A. It is possible that a number of heat pipe loops could be stacked to form the basic structure of some future space vehicle.



Chamber A of the SESL is impressive any way you look at it. The men standing in the hatch give an idea of the size of the chamber—65 feet in diameter, 120 feet tall. Inside you can see the Subsystem Test Bed (STB) being prepared for thermal-vacuum test.

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.

Editor Sally LaMere
Staff Photographer A. "Pat" Patnesky

Roundup Swap-Shop

(Deadline for Swap-Shop classified ad is Thursday of the week preceding Roundup publication date. 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.)

REAL ESTATE

3-2-2 Nassau Bay colonia, fenced, corner, formal living and dining, paneled den, fireplace, custom draped, carpeted, 5 1/2%
Heavily wooded lot, 99x200 in Oak Hollow subdivision, Dickinson, x2631, Hart
1/2 acre wooded lot on Toledo Bend lake with water & electricity, great fishing & camping, x3731, McComb, or 488-2560
Lakeview lot south of Orlando, Florida, near Disneyworld on Trout Lake, \$995, x5576, Lucas, or 482-3592

AUTOMOBILES

64 Ford Fairlane sport coupe, 289, bucket seats, 4-speed, radio, air, \$550, x5466, Richeson, or 482-1064
65 Volvo P-1800, air, magneto, recently overhauled by pro, x4126, Peterson
65 Dart, 270, 2-dr hdp, air, automatic, \$650, 474-3497, Newman
68 Road Runner 383, vinyl top, power steering, Hurst 4-speed, sure grip differential, radio, heater, \$1,750, 946-4752, Morton
64 F-85 Olds 4 dr, a/c, 45k miles, excellent condition, 488-4043, Simon
65 VW squareback wagon, new paint, good tires, \$750, Morton, 946-4752
64 Impala 4-dr ldt, V-8, air, automatic, power steering, excellent, \$775, McCown, 471-0716
67 GMC pickup, 6-cyl, std shift, long wheel base, custom cab, new tires, low mileage, \$1350, Everline, 482-7961 after 6 pm.
66 VW bug, radio, heater, leatherette, excellent condition, \$895 x2749, Brown, or 471-0066
66 Honda 65 cc, runs well, new helmet and 1970 tags, \$160, x4501, Penn
65 Comet, automatic, air, needs some mechanical work, \$595, save \$200, 944-3166, Bruce
67 Plymouth, 4-dr sedan, automatic, power, factory air, excellent condition, \$1450, 946-8804, Hood

69 VW bus, 7-passenger, 1600 miles, white, radio, leatherette upholstery, \$2100, Bonefas, HU5-2643
68 Honda, 350 5-speed, helmet, bags, excellent, \$425, x3786, Vern or 932-4813
67 V.W. fastback, air, radio, vinyl, 65 hp, many extras, low mileage, immaculate, \$1395, x7505, Martin, or 471-2540
65 Olds 442 Holiday coupe, power, air, hydramatic, sports console, extras, 50,000 miles, Cole, 591-4408
68 Honda CL-90 Scrambler, good condition, looks like new, \$175, 488-1326, Raina
66 Pontiac Tempest engine 6 cyl, overhead cam, 230 CI, 180 hp; also 2-speed automatic, good condition; \$50 for each item or \$90 for both, x7301, Statz.
65 Comet, automatic transmission, air, good second car, needs work, \$650 is \$150 below NADA book price, 944-3166, Bruce
66 Rambler 770 station wagon, air, automatic, low mileage, good condition, \$1095, Sampsel, 471-0172
1969 Suzuki Laredo 305cc, 37 hp, high exhausts, 3600 miles, \$600 x2261, Schmitt, or 944-0360
65 Ford Ranchero pickup, standard shift, good condition, below wholesale, clean, reliable, must sell, \$550, 591-2807 after 5
62 Corvair Monza, clean, new paint, overhauled, tires, automatic, \$275, Schnitzer, 723-2179, x3491
69 Pontiac Catalina Sport Coupe, power, air, excellent condition, 40,000 miles (mostly trips), \$2500, x3916, Ratcliff, or 946-6257
62 Mercedes Benz 190C air, superior condition, 52,000 miles, \$1125, x5258 or 487-2415 Ripstein
60 Rambler station wagon, a/c, excellent condition, best offer, 645-0410 after 5 pm
68 Impala Sports sedan, 15,000 miles, am/fm, air, power, 591-3071, Weitz
61 Chevrolet, 4-dr hdp, V-8, radio, heater, air, \$375, HU2-7906, Sawyer

MISCELLANEOUS

12' kayak, \$50, A15-6043, Pereboom
Coldspot refrigerator, 12 cubic feet, excellent condition, \$40, 946-7277, Mackey
Dolphin Jr. Sailboat, complete, color-red, excellent condition, \$400, 488-1874, Milam
Zenith 21" portable b&w set, \$25; baby carriage, \$15, 488-1100 Sobolik
4-cylinder generator, trailer mounted, 6.3 KVA-120 VAC, excellent condition, \$275, 534-2276 (Dickinson), Tomkins
22 Rifle 24", SS, 7x20 scope, \$15; Wilson "Pro" tennis racket, \$5; Mercury KE-55 outboard powerhead modified for straight exhaust w/mag, alternator and extra carb. 45 hp, \$50; x3786, Vern, or 932-4813.
Amplex stereo tape recorder player M/800, with speakers and 32 tapes), (cost \$6-10 each), \$200, x5807, Hall, or 645-1216
17' Heton 75 hp Johnson 62 model, big wheel gal. trailer, baitwell, ice box, etc., fathometer, \$1100, 488-0405, Gentry
Dolphin Sr. sailboat, excellent condition, \$350, 877-2606
Guitar lessons, classical and folk technique, no children, \$10/month; also classical guitar, outstanding tone and action for \$45, 649-4872 after 6
Zenith portable t.v., \$20; maple dresser and 4-drawer chest, \$20; x3155, Behrend, or 487-1298
Honeywell Pentax with exposure meter, soft leather case, excellent condition, \$110, x2891, Ragan, or 487-0408
Antique bricks, yellow, 150 for \$10; 2 saw-horses, \$3, 471-4332, Eldred
Lido 14 sailboat, new condition, late model with full flotation, latest rigging, orange deck, white hull, 1/2 below new boat cost, best offer over \$1,200, 877-2925, Mandell
Colt pistol, frontier style, 22/22 mag. convertible, \$35, 474-4704, Black
Ham transmitter, V'king Ranger, clean, stable VFO, new electrolytics, good overall

condition, \$65, 488-0715, Ward
Danish modern coffee table, light brown, very good condition, \$10, x4320, Shreffler, or 591-3709
Large handsomely constructed bass reflex enclosure with Diffusicone-12 speaker, \$30; also Scott FM tuner, \$20, 488-3966
14' sailboat, fiberglass, cabin, 2 bunks, equipment includes anchor, compass, electrical system, cushions, etc., \$1000 with trailer, x2848, Cree, or 487-1158
Modern studio couch, new, black naugahyde, \$125, 643-4916, Martinez
Flintridge china, Miramar pattern (grey and rose) eight 7-piece settings plus extras, worth \$250, make offer, 482-7877, Faber
G.E. color t.v., 6 mo. old, perfect condition, 18" picture, warranty coverage, \$295; also dark brown 2-piece sectional couch, corner table, 1 pr. green draw drapes, 946-4752, Worton
Sprague-Carlton pine headboard and footboard, double or queen size, \$80, x2926, Payne, or 485-3821.
*67 Holiday travel trailer, 19', sleeps 8, electric brakes, a/c, canopy, hitch, jacks included, 877-4155, Bullard
Camper shell for short wheelbase pickup, best offer, x4924, Hawkins, or 932-3845
Broynil! modern bookcase-room divider, walnut, good condition, cost \$200, take \$75, 591-3930
16' runabout, 40 hp Mercury, electric start, trailer, great for skiing or fishing, x5121, or 591-2710, Parker
Free: three 50 lb bags of lime, yours if you come get them, 591-3071, Weitz
15' sailboat, GC-15 fiberglass sloop, new last year, with galvanized trailer, \$1000, (save \$500), x3541, Minar, or 877-3028
Aurora 21 keel boat, sleeps 4, Genoa, Spinaker, working sails, dry-sailed at HYC, x2001, Young, or 925-3312
House Trailer, 44x12, 2 br, 9 months old,

new condition, low equity, x5548, Harris, or 488-1003
Loxegewagon-Wheel Camper, 2 years old, sleeps six adults, complete kitchen, removable screened patio, 488-3264
Lawson sofa, nylon fireze, turquoise, 2-cushion, \$50; also 6" jointer, 3/4 hp with roll bench, \$70, 471-1395, Schultz
Spanish double bed, Bolero' style by Unique, excellent condition, \$50, Oldham, 932-4216
Dishwasher, full-size Hotpoint, mobile or built in; also social membership to CLC Country Club, highly discounted, x4647, Spivov, or 488-0369.

WANTED

Ride or car pool, League City (Tiegs Ave) to MSC, 8-4:30, x4900, Grogan, or 932-5417
Good used power lawn mower, \$4900, Grogan, or 932-5417
Large 4 or 5 br house in NASA area, desire low interest and equity of \$10-15k. Occupancy within 30 days desirable, price range of \$35-40k, 877-3059 after 5
Car pool between NASA area and South Texas College of Law, x3786, Mabley, or HUB-3241
14-16' fiberglass or aluminum boat, motor, and trailer, 932-3653, Thompson
Students for art lessons, all ages, oil, & pastels, 487-0408, Ragan
Full-length mirror, plain or fancy, x5111, La Mere
Trailer for 14' Sunfish, M15-7316
PETS
Pure Seal Point Siamese kittens, \$15, 482-1559, Streit
Purebred Dachshund puppies, wormed, 6-weeks old, male \$30, female \$25, 935-6322 (LaMarque)
Toy Pekinese, champion blood line, 479-2436, Suiter
Labrador Retriever, 1 year old, chocolate brown, amiable disposition, free, x3312, Lancaster, or 482-3504



Golly, you look familiar!

Oh yeah, you're the guy in the mirror. Flight director Jerry Griffin and his twin brother Larry (that's Larry on the left) met out at Ellington a couple of weeks ago. Larry is stationed at Tindall AFB, so when Jerry had to make a speech in nearby Panama City, Florida, Larry stopped off to give him a lift, as well as to catch up on the latest family news.

Learn to SCUBA dive

The Spring class in skin and SCUBA diving is now being formed by the MSC Lunarfinns. The classes will meet twice a week, for 3 hours Monday and Thursday, for 7 weeks. The classes are scheduled to begin April 6.
The "final exam" will be a dive at the off-shore oil rigs in the Gulf.
Total cost of the course, including use of club gear (tanks, regulators, air, etc.), formal certification and diploma, course manual, use of heated indoor pool, charterboat for the "exam", and one-year membership in the Lunarfinns will be \$44.
Call Bill Moran, x3821, or Hugh Scott, x3205 to reserve a place in the class.

Umpires meet

Believe it or not, you don't need any experience to be an umpire in the MSC Softball League. (but it helps). Just attend the short meeting on Thursday, March 26, at 5:15 in room 241 of building 2 to see whether you qualify. Call Mike Christensen, x3271, if you have questions.

Softball season shapes up

The MSC Slow Pitch League will begin organizing on Wednesday, April 8, at 5:15 p.m. in room 716 of Building 2. The next day, Thursday, will be the day for the Fast Pitch meeting, in the same room at the same time.
MSC, contractor, and military personnel are all eligible to play.
Each team should be represented. EAA contact is D. Doherty, x2741.

Please don't be so nice!

You are in Building 2 . . . you are racing for time . . . the meeting is on the 9th floor. Where are the elevators . . . you just can't be late. Finally!! here is an elevator, thank goodness. You jump in and start pushing the "close door" button. Come on elevator, let's go. Oh, that isn't doing any good. Then, "at last" the door is closing, but—here comes this very nice gentleman "Hold the door," he yells as he sticks his leg in. The door opens and the nice man is in. Come on door, close. Then just as it starts to close again this nice man sees some people coming in the building. He quickly slams his finger on the "door open" button—"hurry folks, you'll miss

the elevator." The buzzer rings, but he holds the door open and as the folks trickle in one by one: "What floor for you sir? Six—OK. And you sir—Four gotcha." Then finally the elevator is full. All the floors have been punched except his floor. This nice man has done his job about getting the most of each run, so he feels he has done his good deed and he smiles he proudly pushes his button—for the 2nd floor.
Weary Rider

Histrionics for Alan Glines

MSC flight control engineer Alan Glines, a veteran performer at Pasadena Little Theatre and Clear Creek Country Theatre, has the leading role in an original three-act comedy which will open tonight at Theatre Suburbia in Houston.
Tickets for the play entitled "Smart Assets," which opens tonight, are \$2, available at 682-3525.

Co-Op of month



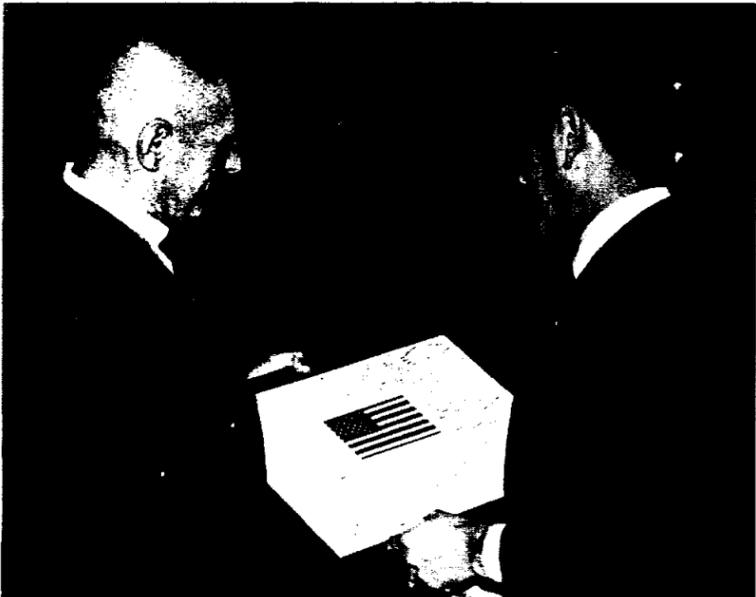
Danny J. Harvey
Engineering Analysis

Working on the problems of kinesthetic control of a lunar flying vehicle, Danny's progress has been so advanced that he was asked to give formal presentations about the results of his simulation progress to supervisory personnel and experts in the field. His progress has shown him to have exceptional ability for logical development of assigned tasks.



Alan Glines sure looks stumped—but it's OK. He's just playing the part of the bumbling but loveable guy he portrays in "Smart Assets," opening tonight at Theatre Suburbia.

Kraft honored at party given by Flight Control Division



Eugence Kranz presented Dr. Kraft with this flag, taken to the Moon by the Apollo 12 crew. Everyone in the Flight Control Division signed around the flag.

MSC's well-known former chief of Flight Operations, Christopher C. Kraft, Jr., was the honored guest at a party which the Flight Control Division threw for him. Kraft moved from FOD to the position of Deputy Director of MSC. The candle-light dinner-dance was held last Saturday, March 7. About 300 people attended the party. The theme, of course, was Kraft's "Life with FOD", and included slides, a skit, and awards for the guest of honor.

Two other MSC "Chiefs" have been honored recently, Wesley L. Hjernevik, was honored at a party catered right here at MSC on February 20. A dinner-dance held January 31, honored George M. Low.



The table before Dr. and Mrs. Kraft shows several of the mementos he received from the Flight Control Division. You can see the caution and warning panel from the CSM, the Parker valve plaque, and the communications panel which were presented to him.

See Europe this summer!

Trip organizers at NASA's Lewis Research Center are planning an eight-country tour of

Europe for a price of \$620, which includes air transportation round trip from Cleveland, superior tourist class hotel accommodations, most meals, and land transportation. MSC'ers could book Houston-Cleveland commercial excursion flight for approximately \$110.

A chartered Royal Dutch Airlines DC-8 will depart from Cleveland on August 18 for London, and return from Amsterdam to Cleveland on September 8 . . . an exciting three weeks later. Countries to be visited will include England, Holland, Germany, Switzerland, Austria, Italy, France and Monaco.

Federal employees, their spouses, children under 21, or parents living with them are eligible for the charter flight. Those who are interested only in the air transportation from Cleveland may arrange for it alone for \$240.

Registration for the flight and tour must be made no later than April 1, 1970. Contact George Hoy, NASA-Lew's Research Center, (Phone: (216) 433-4000), for further details. The "Round-up" office has a copy of the itinerary in room 145, bldg. 1.

Your child's exploration of "space" --keep it safe

President Nixon has proclaimed the week of March 15 as National Poison Prevention Week.

Whenever we talk about poison prevention, we think first of the danger which many common household products pose to our children. These fearless explorers of the "planets" beneath the kitchen sink, the floors of closets, and the bathroom linen and medicine cabinets, most often make their 'discoveries' by tasting the things they find. It is our job to protect our children from harmful substances.

The problem of protecting your family is a continuing one. While the child's mobility is limited to crawling and learning to walk,

poison proofing is fairly easy—just put hazardous substances on high shelves or cabinets.

When the youngsters learn to climb, the best solution is to lock dangerous substances up. A drawer or closet—even luggage—which can be locked or bolted can be used as storage areas.

The Safety Office recommends that you follow these simple rules:

- Keep household products and medicines out of reach and out of sight of children, preferably in a locked cabinet or closet. Even if you must leave the room for only an instant, remove the container to a safe spot.

- Store internal medicines separately from other household prod-

ucts and keep these products in their original containers — never

Look familiar?

The following phrases, frequently found in technical writings, are defined here for your edification and enlightenment. The list was plagiarized from some unknown genius who evidently had read one too many scientific paper:

"IT HAS LONG BEEN KNOWN..."

I haven't bothered to look up

"OF GREAT THEORETICAL AND PRACTICAL IMPORTANCE"

Interesting to me

"THREE OF THE SAMPLES WERE CHOSEN FOR DETAILED STUDY"

The results of the others didn't make sense and were ignored.

"TYPICAL RESULTS ARE SHOWN"

The best results are shown

"IT IS BELIEVED THAT..."

I think

"IT IS GENERALLY BELIEVED THAT..."

A couple of other guys think so too

"IT MIGHT BE ARGUED THAT..."

I have such a good answer for this objection that I shall now raise it.

"CORRECT WITHIN AN ORDER OF MAGNITUDE"

Wrong

"THANKS ARE DUE TO JOE GOLITZ FOR ASSISTANCE WITH THE EXPERIMENT AND TO JOHN DOE FOR VALUABLE DISCUSSIONS"

Goltz did the work and Doe explained what it meant to me.

Courtesy, Health Physics Society Newsletter

Oilers -- Beware!



Members of the "Allstars" team which will vanquish the Houston Oilers basketball team when the two teams clash Saturday night, March 21 in the Alvin H. S. gymnasium are: bottom row, left to right, J. Woodfill; T. Neal; A. Morrey; R. Cruse; T. Gardnier; top row: L. Ratcliff, T. Bruce, coach R. Reid, P. Shanahan, and M. Conway. Not present: G. Ricks. They will be meeting such players as Garland Boyette, Ken Houston, Zeke Moore, Johnny Peacock, and Bob Davis. Proceeds from the game will go to the Texas Lions Crippled Children's Camp in Kerrville. Come support our team and help the children all at the same time.

Contact W. J. Klinar, x4381, for tickets.

Announcements

Ladies Volleyball—

Managers and ladies not on teams should attend the league organization meeting on Thursday, March 19, at 5:15 pm, in Building 2, room 316.

All MSC and contractor employees/wives are eligible to play.

Questions? See Dennis Doherty, x2741.

Beginning Spanish offered

The EAA Spanish Club will offer an accelerated 10-week course for beginners in conversational Spanish. All MSC and Contractor employees and their families are welcome to enroll.

The course, taught by Professor Emilio Gonzales, will meet each Tuesday and Thursday from 5:15 pm to 6:45 pm in Building 13, room 108. Lessons will start March 31 and extend through June 4.

Sign up by calling either Rick Eckelkamp, x5310, or Harry Kline, x4564 immediately.

Texas Ex-es meet

The Clear Lake Texas Exes will show a highlight film of the 1970 Cotton Bowl Game between the 1969 National Champion Texas Longhorns and the Notre Dame Fighting Irish in the Embassy Club of the Holiday Inn on NASA Road 1 at 5:30 p.m. on Wednesday, March 18. The film is narrated by Lindsay Nelson.