



"Election 72" Campaign Climaxes With Food and Fun Next Saturday

To most Americans, Election '72 is a month and a half off, but to MSC and contractor personnel and their families it's just around the corner.

Next Saturday, in fact, a week and a day away, Camp Manison in Friendswood becomes the scene of the Election '72 rally that really is the Employees Activities Association's annual MSC picnic.

The only thing that costs the voters in this election other than the admission ticket is the dunk tank (look below: it's worth it!), and those proceeds go to the Harris County Boys Home.

A schedule of picnic activities and a map of the midway appear on pages 2 and 3 -- it might be a good idea to clip the infor-

mation and bring it along to the picnic.

Last year's event drew some 5000 personnel and their families and expectations are that this year's show may run even more. Betty Cornett and Jim Rayl

are co-chairman of the EAA picnic committee. The picnic's theme -Election '72- was submitted by Pat Nobles.

COMPETES WITH SMEAT—The work is just as tough, but the schedule's a lot better. That's one big difference between the Skylab mission simulation that began last week and ends Wednesday at 2 p.m. and the Skylab Medical Experiments Altitude Test that will end a 56-day run at 7 Wednesday morn-ing . Dr Joe Kerwin and Paul Weitz run over their check list as they activate the multiple docking adapter, above left, part of the Skylab assembly. Then Kerwin joins Pete Conrad in the orbital workshop trainer, above to stow equipment and supplies during the activation of that unit.

Skylab Crews Conduct 11 Days of Simulation

The prime backup crews for the first manned Skylab mission last week began an 11-day simulation during which they will duplicate flight tasks in Skylab simulators and trainers.

Prime crew members Pete Conrad, Dr. Joe Kerwin and Paul Weitz and backup crew members Rusty Schweickart, Dr. Story Musgrave and Bruce McCandless will work alternately in the command module and Skylab simulators and five trainers-orbital workshop, multiple docking adapter, airlock module, Apollo telescope mount, and command module 1-g trainer-which are located in the Building 5 Mission

feet of working and living area, houses most of the Skylab experiments, has two solar array panels for power generation, and the complete crew quarters and commodities for sleeping, eating and housekeeping during all mission operations.

The OWS is the third stage of a Saturn V launch vehicle which has been modified for Skylab.

The multiple docking adapter

provides facilities for docking the (Continued On Page 4) **Good News, Guys:**



CALLING ALL CARS-Cars full of MSC and contractor personnel and their families, that is, to attend the annual MSC picnic where this quartet of lovelies will grace the dunk tank. Not too unhappy, apparently, over the prospects of a soggy Saturday, the dunkees are Linda Trippodo, Joanne Naponic, Mary Yarbrough, Phyllis Cline and Sue Newton, One more mermaid, Connye Lenczewski, and astronauts Joe Allen, Joe Engle, Karl Henize, Bob Parker and Rusty Schweickart also will serve as targets.

Simulation and Training Facility.

The realistic trainers represent the elements of the total Skylab spacecraft.

The Skylab assembly will be launched unmanned aboard a Saturn V in the spring of 1973, and will be visited three times by three-man crews over an eight month period.

Twenty-four hours after the Saturn V launch, the crew of Conrad, Kerwin. and Weitz will be launched aboard a Saturn 1B, and will rendezvous and dock with the orbital assembly for a stay of 28-days.

The orbital workshop, which has approximately 9,555 cubic

You Get Out Soon

While the Skylab crews break for another free weekend in their 11-day simulation, the beleaguered SMEAT crew enters the final weekend of the 56-day run. They are due to rejoin the world-to the cheers of any MSC personnel who want to be on hand outside Crew Systems' 20-foot vacuum chamber—at 7 a.m. Wednesday. Life Sciences Director Dick Johnston, commenting on the final days of the Skylab Medical Experiments Altitude Test, says "It has been a very successful test . . . , although not 100 per cent successful, we have learned valuable lessons"

ROUNDUP

Roundup Swap-Shop

Swap Shop advertising is available to MSC an on-site contractor personnel. Article or services must be offered as advertised, without regard to race. religion sex or national orgin. Ads should be 20 words or less including home telephone number. Name and office code must accompany, but need not be included in, ad copy. Typed or printed copy must be received (AP3 Attn: Roundup) by Thursday of the week before publication.

MISCELLANEOUS

A-No. 1 saddle \$35. Green 331-3001. 9mm Browning 13-shot automatic, xtra clip, partial box ammo, lk new \$110. Wood 482-3059.

Camper/trailer supplies: refrig, stove/ oven, water pumps, toilet, windows, alum siding & roofing, lights and more, all new, priced below wholesale. Wood 482-3059. French Horn used but gd cndn, Conn 4-D \$225. 482-7030 after 5.

Breda-Brescia 12-ga auto shotgun wi ventilated rib bbl. 2 chokes, case \$95, 941-0201. Allied amp, FM tuner, Garrard 4HF turntbl, 12" triax Wharfdale spkr, sep cabinets,

working, needs adjust, cheap. 471-0066. Criterion telescope 41/2" wi mount & 3 eyepieces. 488-4043.

Shearred raccoon coat looks Ik shearred beaver, xint cndn, pfct for northern college girl. make offer. 488-4043.

Exakta VX 50mm f2.0 wi 35mm wide angle 135mm telephoto, pentaprism & waist level finders, filters & leather cases, bargain \$90. Handley 482-7041.

Beretta 20-ga AL-2 auto shotgun \$135, Remington 552 BDL auto .22 rifle \$40. Price 471-3314.

King-size bed \$75, Harmon Kardon Mod 5-30 AM/FM stereo receiver/amplifier \$125. Peterson 488-4176 or 333-3774 after 5.

Air conditioning unit 4-ton Rheem, brand new, still in crate, can install. Rosenbaum 474-4386.

Combination stereo record player & stereo AM/FM radio console, xInt cndn. 1st \$75 takes it. Stewart 585-2698 Alvin.

2 mud tires 8.55x14 4-ply nylon, almost new \$15 ea, 22" self-propelled wi 3.5hp Briggs & Stratton eng \$35. Peacock 554-4458. Cornet, Ambassador wi case, gd beginner horn, bargain. Eaton 482-3161.

Eico 4-channel converter \$15, Epiphone Ensign guitar amp \$200 Peterson 488-4176 or 333-3774 after 5.

Short platinum wig hardly ever worn, reg \$20, sell for \$10. 534-6481 after 5:30.

VEHICLES

70 Ford 12-ton pickup 360 V8, auto, air, pwr. clean, 8' bed, going into Air Force \$2475 XLT Ranger. 733-7667.

VW huntingbuggy xint mech cndn, front bumper, engine, skidplate \$400. Peacock 554-4458

68 Pontiac Gran Prix, pwr, air, etc. \$1200. 474-4315.

66 VW 49502.1 usual miles \$550. 474-4315. 67 Ford sta wgn 390 10-pass, all pwr, new tires, gd cndn \$250 below list. Willis 944-3647

65 VW van. vry gd mech ondn, some rust but not bad, first \$300 takes. Stewart 585-2698 Alvin.

71 Ford pickup xInt cndn, air, pwr. auto. Schneider 426-4749.

Sears 4hp minibike 112 yrs \$50, 474-4386. 68 Pontiac Executive sta wgn, air, pwr steer & brakes, radio, adjustable air lifts, 1 owner \$1425 Kinzler 334-2449.

Green 10-spd bike under 1 yr old, ridden approx 6 times, bought for riding to work, \$88 new, \$60, xint cndn. Everett 747-4203 after 5.

70 Mustang 6 cyl, std. xint cndn, yellow wi black trim & black vinyl top \$1900. Garland 334-3152.

68 Holiday Rambler 27' trailer, hitch & many xtras. Becker 643-4151.

69 Buick LeSabre gd cndn \$1000 firm, 488-3377 after 5.

22' self-contained travel trailer, 1 owner, Ik new, air, hitch incl. 488-3377 after 5. 70 Honda 350 xInt cndn, 7600 mi \$500. 488-1596.

22' Airstream 66 Safari sleeps 5, fctry air, tub, custom stereo, beaut cndn. 485-3384. 71 Honda Trail 90 pfct cndn 1500 mi \$295. 944-6213

71 MGB, air, radio, radial tires etc, lk new, 11,600 mi. Leonard 944-4997

70 Triumph TR6 xInt cndn, gd tires. White 488-1024

69 Toyota Corona, air, 4-spd, radio, xtra clean \$1195. 485-1515 or 485-1181. 69 Opal sta wgn \$995, 485-1181,

8' cab-over camper, butane, water, 2 dbl

beds, table, storage \$300. 333-4875 ext 310. 69 MGC blue wi black top, gd cntln. 534-6481 after 4:30. 69 Buick Wildcat 4-dr hdtp, all pwr, air,

FM stereo, new tires \$2250. Cobb 333-4109, 71 Olds Toronado, beaut car, xint cndn, lo mi. 946-2503.

Cleanest 16'6" Larson Shark in town wi 55hp Johnson, trailer, waik-thru windshield, full canvas, side windows, many xtras \$2100 firm. Thompson 332-2229.

Roommate to share 2-bdrm furn apt in Webster. Paula 483-3923. PETS

AC reg champ-sired 4-mo-old show and pet quality collies, perm shots and wormed. 332-1909. Palomino stud colt 1-yr-old, halter broke.

Mike 935-6546 LaMarque after 5. Beautiful black and white kittens free. 482-3989.

15 and 20-gal aquariums wi equip and fish \$45. Peres 471-1443.

Dalmation 6-mo female, beaut marking, AKC. shots \$30 or trade for dachshund of like qual. Leger 482-3978. AKC reg black Laborador retrievers 7-

wks-old wi shots \$35 and \$40. Donahoo Unusual pet, beat the Christmas rush, 4'

boa constrictor incl 10' showcase and smaller retaining cage \$70. Rubenstein 334-2354.

67 Buick LeSabre 2-dr hdtp, custom interior, tilt steering wheel, At cond, power, engine has been replaced, above average. Sullivan 944-5033.

70 Pontiac Catalina 400 cu, pwr steer and brakes, turbo-hydramatic, deluxe heat and air, vinyl top, xint cndn \$2225. 482-7757. 72 Honda SL-125, spotless, 500-plus mi, buddy pegs, fork brace and covers \$415. 474-4662 after Sep 25.

72 Vega 7700 mi. air. auto, radio, tape player wi rear speakers \$2775. Cornett 649-6377.

68 Buick Skylark Custom 2-dr hdtp, auto, air, pwr brakes and steer, bucket seats, pfct cndn. 649-1297 after 5:30.

66 Honda 565 motorcycle runs gd \$125. Glenn 482-3662,

Found: watch in Bldg 29 parking lot. MSC ext 3141

Ludwig snare drum wi case, stand, practice pad, marimba stix and Franz metronome Selmer alto sax wi case, lyre and \$55. stand gd cndn \$75, white band shoes size 8 \$2. Wilson 333-3886.

Bernzmatic propane camp stove 2 burner Ik new \$8, Schwinn 24" boys bike \$10, girls 26" bike \$10. Wilson 333-3886. Genuine brass dbl bed \$300. Gorman 521-

9805, 3 matched armless sofa-chairs 2 brown 1 green, xInt upholstery \$10 ea. 944-8717. 54 15' fiberglass boat wi 75hp motor, small wheel tilt trailer and spare tire, anchor, life jackets, skis, shrimp net \$1095, 935-3921

LaMarque, Bass boat and trailer 71 15' Tidecraft wi 50hp Johnson motor, fully equipped \$1600. Copeland 332-3571 or after 5 427-1880. Timber Cove 4-2-2 contemp 2300 sq ft, den, fire, fence, big pines and oaks, mid-30's. Holley 332-2561 day or 334-2382 nite.

Rent new Reseda twnhs 2-2-2 all-elec \$215 mo. Miller 488-0621 after 4:30.

MSC Picnic Schedule

11:00-2:00 Ping Pong 11:00-5:00 Kiddie Rides 11:00-4:30 Hay Rides 12:00-3:00 Food Service 12:30 Oriental Band 12:30-4:30 Carnival Booths 1:00Special Teenage Hayride 1:00GoCarts and Motorcycles 1:00-3:30 Dunk Tank 1:00-4:00 Band, The Aquarians 2:00 Shooting Exhibition 2:00 Egg Tossing Contest (teenagers only) 2:30 Oriental Band Special Teenage 2:30Hayride 2:30 Treasure Hunt (children only) 2:30-5:00 Bingo 3:00 GoCarts and Motorcycles 3:30

Tricycle Race (teenagers only) 4:00

Shooting Exhibition

Accountants Open New Year Tuesday With FBI Talk

The Federal Government Accountants Association opens its new year Tuesday evening with a dinner program and a new slate of officers.

FBI agent Joe Dooling will outline the role of the accountant and auditor in the FBI in Tuesday's program at the El Chico Restaurant at Almeda Mall.

New officers presiding over that first program of the year are Institutional Planning Office Deputy Chief Tom Johnston president, CSM Contract Engineering Branch's E. Ray Walker vice president, and Resources and Program Support Assistant Director James E. Bone program director.

Guests are welcome to attend and can get information or reservations by noon Tuesday the 19th from Henry Fancher, MSC extension 5051.

Masquerade Ball Set October 28 In LC Legion Hall

MSC masquerade buffs can shake the mothballs from their costumes-masquerade dance time is almost here again at American Legion Post 554 in League City.

Supporting the VA hospital program, Christmas for Needy Families, and the auxiliary's Children and You'n program, the dance is set for October 28, with the six-place Swinging Strings providing the music.

For information or tickets: Marilyn Hartman, MSC extensions 5861 or 5827, or the Legion Hall 554-9931.

Pin Oaks Benefit Set September 22

Another big event for MSC horse-lovers comes up next weekend in the Delta Gamma sororitysponsored benefit for the Society for the Prevention of Blindness at the Pin Oaks Stables September 22-24.

The second-largest horse show in Houston, the benefit will feature six performances, matinee and evening, with door prizes to be awarded and hox seats with club privileges available.

NAC

racing, sleeps 4 \$2795. Erickson 488-1901. 18' Falcon deep-V. Evinrude 90, galv trailer, accessories, pfct bay boat \$1495. Weary 334-1181

and equip incl pro ski-tow bar, 71 model in mint cndn. reduced to \$2995. Bland 333-4580. 14' wooden boat wi top and 35hp manualstart motor, comp! wi trailer. Brahm 946-

16' Lone Star (Chrysler) wi galv trailer and many xtras, gd cndn, reasonable. 488-4043. fiberolass Redfish, 75hp Evinrude, 16' trailer, \$900 cash or \$300 down. Swenson 488-6833.

LOST AND FOUND

Missing from 1st floor Agena Bldg, greencover very thick book "Trees, Shrubs and



ROVERS VS. REBELS TONIGHT --- The MSC Lunar Rovers take on the tough Houston Rebels at 6:30 tonight on the Ellington field to help celebrate the 25th anniversary of the Air Force. Members of the EAA women's softball program, the Rovers are Pat Brown, Jo Ann Birchett, Barbie Bonney, Erna Charba and Debbie Wilkerson in the front row, and Rita Smith, Carol Haley, Chris Milner, Jo Ann Anderson, June Hensley and Gay Williams in back. Three other Rovers missed the picture: Dee Norris, Cindy Siegfried and Shirley Cortright.

PROPERTY AND RENTALS

Friendswood 3-2-2 large traditional, xInt interior design, cathedral en, formal living, covered patio. \$3000 equity \$217 mo, immed occupancy, 482-1026.

Lease 2-bdrm and study 1½ bath, boatdock, large trees, fenced, on Clear Lake \$350 mo. Easter 334-1564.

CLC 5-brm 3000 sq ft on 100 x 200 corner lot \$39,500, assume 71/2, by owner. 488-0112. Lake Livingston Nugent's Cove. 2 wooded iots, 100 front x 150, gd roads, water and elec, \$3000. 554-5074.

Houston Tropicana 3-2-2 brick wilden and cent air, near schools, lo down, 643-5384, CLC 4-bdrm 974 Wavecrest for sale or lease wi option to buy. 333-4375 ext 310.

HOUSEHOLD ARTICLES

Mattress. xtra-firm innerspring or firm Nimbus foam xtra-long twin, lk new, either \$50 value \$25. Spivey 488-0369.

BOATS 925-2139.

Info and prices used Lido 14 sailboats for

sale by owners, Hoover 334-2392. Gulf Coast 22 sailboat xInt for cruising or

Luxurious 16' speedboat 120hp ob, trailer

4210.

Environment Talk Reservations Due

Reservations are due by Tuesday for next Thursday's jointly sponsored "Environmental Protection Today and Tomorrow" dinner program at the NASA Holiday Inn.

Five area professional societies are presenting Region 6 Administrator Arthur Busch, Environmental Protection Agency, in a discussion of environmental protection problems.

For reservations: Jackie Blanchard at 488-1270, ext 448.

Woody Vines of the Southwest," stamped "Clavton Forbes" inside cover. Forbes 483-2526 or LaChance 488-0080 ext 285,

WANTED

Garcia 5000 or 6000, 6000C fishing reel. Klotz 488-1514.

Portable typewriter in gd cndn. 334-3237. Shotgun barrel for Remington MdI 11 semiauto mod or improved cyl, cnsdr cmplete gun if reasnbl. Spivey 488-0369.

Bowlers, NASA or contractor employees wi hi avg join Thurs early league at Mimosa, regulars not subs. Spivey 488-0369. Form or join car pool using Gulf Fwy from vicin Park Place/B'way Circle to Bldg 2 8:30-5. Johnson 643-4758 or 483-3258.

Cabin in Smokey Mtns, pref Gatlinburg area, to rent last 2 wks Oct, any leads apprec. Evans 488-3282.

Scuba flotation vests, pref 16gm CO2 cart plus oral inflation tube. Morris 729-1545. Regulation pool table reasonable, 488-3377 after 5.

Ham xceiver AM and SSB 80M 40M 20M 15M 11M 10M, Drake TR-4 or equiv. Pearce 332-1309.

Used tractor. 482-3989.

Rollaway bed gd cridn \$15. Klotz 488-1514. Round Spanish table wi 4 chairs \$70, lk new 10-spd bike \$70, mischievous puppy any offer. Green 331-3001.

GE top-load auto washer needs minor repair \$40. Teasdale 482-7801,

3-pc French Prov bdrm set white and gold wi mattress and springs \$175. 946-7719 after 6.

Sofa and chair \$90, 3-pc table set \$25, buffet \$45, 5-pc dinette \$60, 488-6978 No-vent elec Frigidaire dryer \$35. Schulze 422-5636.

Dbl-oven gas stove lk new \$150 481-3543 Whirlpool white 8-yr-old washer, new pump, cnsdr trade for golf clubs or mini-bike, \$40, 488-6701.

Rollaway dbl bed lk new \$30, 534-3665, 2 sets bunk beds wi mattresses, priced to sell quick, xint cndn. Eaton 482-3161.

LATE ENTRIES

61 VW, gd engine, tires, transmission all hooked together, looks bad, runs good, \$175 minimum for quick sale. Muhiy 471-3762. 71 Datsun 24OZ, blue, auto and air \$3795. 554-3969.

4:00 Oriental Band Facilities and equipment will also be available for volleyball, softball and horseshoes.

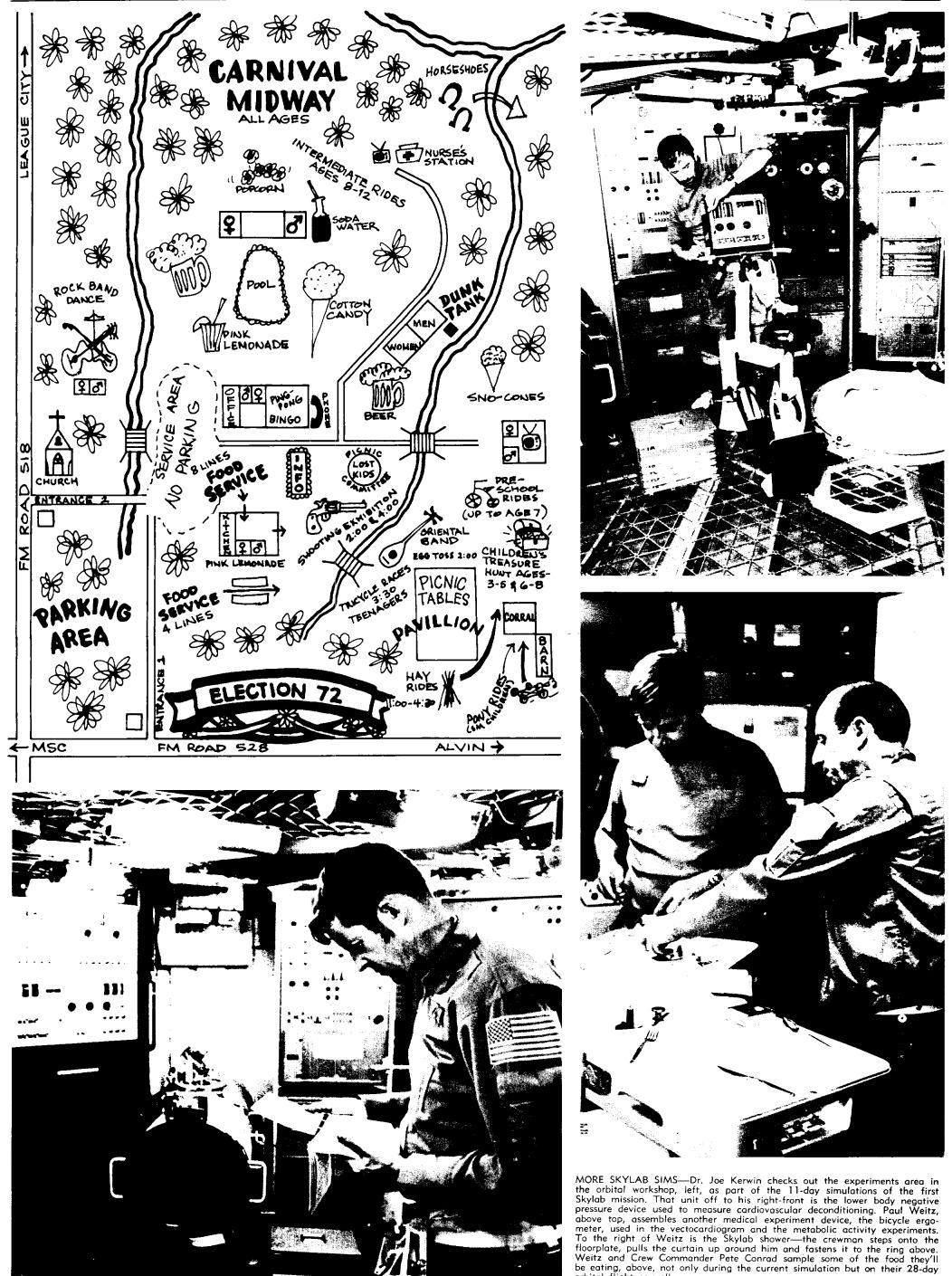
Think Picnic!

For information or tickets: Joanne Naponic at MSC extension 4303, or John Boynton at 4091.



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.

Photographer: A. "Pat" Patnesky



orbital flight as well.

NASA FACTS: TRACKING AND COMMUNICATIONS Flight Control Teams Speak Bits and Pieces to Spacecraft

stallment of the NASA Facts brochure on Tracking and Communications. In the last issue, the Manned Space Flight Network and the NASA Communications (NASCOM) network were introduced. This installment tells how the networks are used.

The people who need the data for manned flight are the flight controllers at the Manned Spacecraft Center.

These are experts in their field, whether conduct of the mission in general or a specialized area such as spacecraft guidance systems.

Teams of equally skilled personnel support each controller.

Their prime tool, the data from the spacecraft, comes via NAS-COM into the Real Time Complex in Houston.

Here the telemetry and tracking signals are processed through computers, which use the data to perform tasks such as comparing actual position and velocity figures with predetermined parameters, or predicting spacecraft position at any future point in the mission; they also evaluate spacecraft and astronaut status to determine that they are functioning properly.

The language in which information from space is presented is a train of electronic pulses representing "bits" (from "binary digits"); in the binary system, any number can be represented by a sequence of ones (pulses) and zeroes (nonpulses).

Communications stations for the Mercury and Gemini programs were geared to handle data at a rate of some 120 bits per second.

Current high-speed circuits take 2400 to 50,000 and more bits per second.

The data processing and computing equipment, which understands this language, easily translates it into temperature readings, heartbeat rates, or even positions

MSC Golfers Get Call to 1st Annual FBA Tournament

This is the second and last in- of spacecraft control switches.

This same language is used on the communications uplink to send coded commands to the spacecraft systems.

Thus ground controllers in Houston, using tracking data generated halfway around the world, can tell a computer a quarter of a million miles away in space just when and how long to fire the rocket engine that will bring the tongue by the human voice, and conversation between man in space and man on Earth probably is the most familiar application of spacecraft communications.

In earth-orbital flight, communication between crew and controlers depends on the spacecraft's range from a ground station, and often a period of up to 45 minutes of radio silence will be ex-

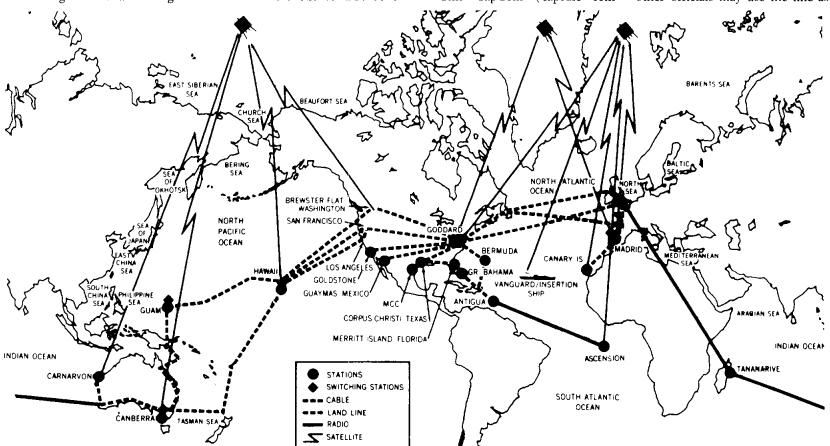
language is that spoken in his own to and from the moon-communication is constant, for the spacecraft is always in view of at least one antenna on Earth.

> Conversation from the ground usually comes from a fellow astronaut who has gone through the training for that specific mission and, therefore, is familiar with procedures followed by the crew during the flight.

This CapCom (capsule com-

are lighthearted exchanges between the crew and the CapCom tween the crew and the CapCom, but mainly they deal with the serious business of space flight: visual observations, problem areas, flight procedures, and the like.

Although CapCom is the officially designated spokesman for Mission Control under its call sign "Houston," the flight director or other officials may use the line as



astronauts home safely.

This capability backs up the crew's onboard activities, or it can serve to free them for other duties.

To people, however, the easiest understood and most reassuring

Skylab-

(Continued From Page 1)

command and service module and crew working areas for operation of the Apollo telescope mount, earth resources and space manufacturing experiments.

The MDA, which has 1,140 cubic feet of working space, also provides transfer of personnel, equipment, power and electrical signals between CSM and OWS.

The airlock module has a special hatch compartment and services for supporting extra vehicular activity by astronauts who will leave the vehicle to replace and retrieve the film in the telescope mount.

perienced even in orbits of only 100 miles.

In lunar orbit, similar silent periods are encountered when the spacecraft is behind the Moon.

But during translunar and transearth flight-the three-day trip

municator, so named during the Mercury program when the word "capsule" rather than "spacecraft" was used) relays comments and instructions from the flight director.

The conversations occasionally

appropriate.

The most distinguished communicator to date, for instance, has been President Richard Nixon, who talked directly to Neil Armstrong and Edwin Aldrin shortly after they had become the first humans to set foot on the moon.

Not only is communication between space and ground necessary, but the crew members must be able to talk back and forth

In a shirtsleeve or unsuited environment, of course, conversation is no problem.

When the astronauts are suited and their helmet faceplates closed, an electronic intercommunications system is employed; crew members can talk between themselves, or can carry on a conversation with the ground.

Radio communication also is

MSC golfers have been called to the first annual Federal Business Association golf tournament scheduled for Saturday September 30 at the Bear Creek course, but they'll have to act fast-entries are due by Monday the 18th.

Trophies, prizes and refreshments worth \$250 are up for grabs, with the promoters hoping for four to six flights and promising no double winners except for pitching and driving contests.

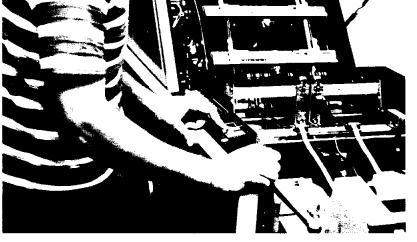
Information on entry fees for FBA members and non-members and on tournament procedures can be obtained from Gordon McEntire at 226-4345.

会U.S. Government Printing Office 1972-779-577/5

The airlock module also provides the main power distribution control and atmosphere supply and conditioning equipment for the entire orbital assembly.

The Apollo telescope mount provides a mounting structure, electric power system, the pointing system, and environmental control system for the six solar experiments.

The simulation, on consecutive days exclusive of weekends, will operationally test 11 selected days of the first Skylab mission



MSC SWIMMER WINS-Offset pressman and bindery helper Randy Gripon, working for the summer months in the MSC printing plant, has returned from the International Special Olympics in Los Angeles with three medals first, a second and a third—from the swimming competition. His trip to the Special Olympics, held annually under the auspices of the Joseph Kennedy, Jr. Foundation, was sponsored and chaperoned by the Galveston Mental Health-Mental Retardation Center and by Teens Aid the Retarded.

provided between spacecraft, as the Apollo command module and lunar module when they are flying separately, or even when the LM is on the lunar surface.

Extravehicular astronautswalking on the Moon, for example -are similarly linked: with each other, with the orbiting command module, ano with Mission Control.

A battery-powered sending and receiving set is built into the back pack worn during surface exploration.

Space communication and tracking today is done electronically, but experiments are underway to use beams of light