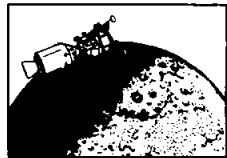


# Now on deck: Apollo 13

# ROUNDUP

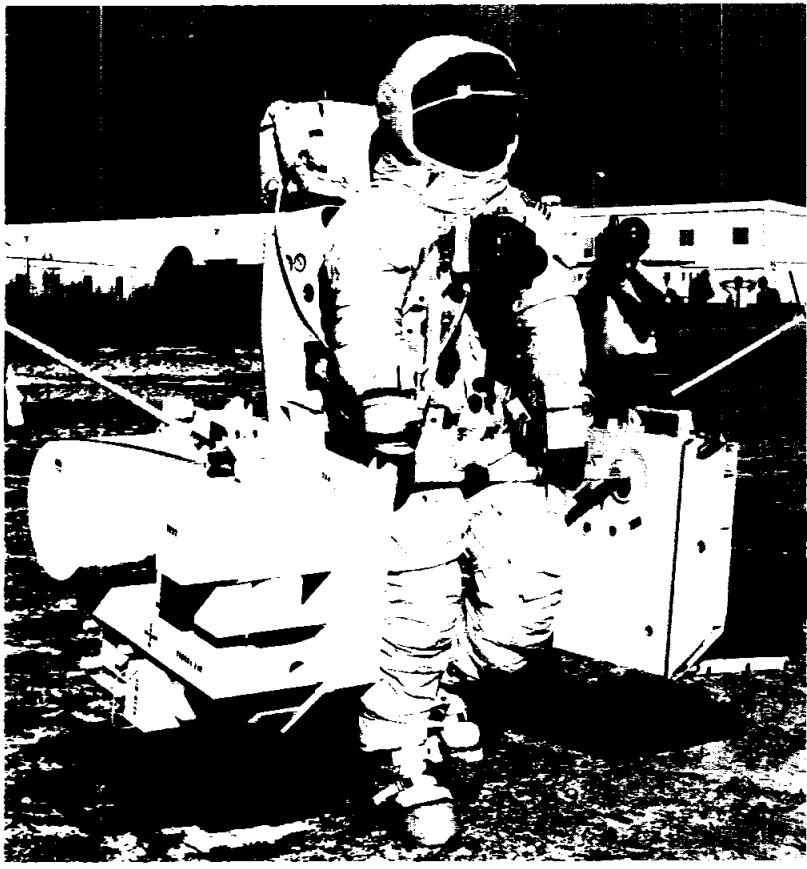
NASA MANNED SPACECRAFT CENTER

HOUSTON, TEXAS



VOL. 9 NO. 8

FEBRUARY 13, 1970



←

This picture ought to dispel any foolish notions that being an astronaut is not hard work — and lots of it! Astronaut James A. Lovell, Jr., commander of the upcoming Apollo 13 flight, is carrying the two pallets of the ALSEP in barbell fashion, while participating in a walk-through of the EVA timeline to be followed on the Moon.



→

Astronaut Fred W. Haise, Jr., tests the motorized "lunar drill" which will be used to obtain core samples from the Moon's surface in the Fra Mauro region.

## President Nixon lauds Emil Ray Schiesser

Emil Ray Schiesser, Assistant Chief of the Mathematical Physics Branch of MPAD, won Presidential recognition last week for a "job well done".

As you know, demonstration of a pinpoint landing capability

was a key objective of the Apollo 12 mission. Previous attempts to calculate the exact position of orbiting spacecraft had been thrown off by the lunar mass phenomena as applied to the path of the spacecraft in lunar orbit.

By analysis of flight data from Apollo 11 and previous lunar missions, linked with experience in developing the unique RTCC for lunar landing, Mr. Schiesser was able to develop the navigation techniques used during the powered descent of the LM. In particular, his real time assessment of the trajectory data during powered descent was the key to the successful achievement of the Apollo 12 precise landing.

MSC joins President Nixon in congratulating Mr. Schiesser on his expert knowledge, planning, skill and preparation.



Emil R. Schiesser  
MPAD

## Fleming Awards for Armstrong and Kranz

Two MSC men will be awarded the Arthur S. Fleming Award on Thursday, February 19. George Romney, Secretary of the Department of Housing and Urban Development, will be on hand as guest speaker.

The Award is given each year to those young men whom the selection panel feels to "have performed outstanding and meritorious work for the Federal Government". The committee hopes that by presenting these awards, other able young men will be enticed to begin government careers, and that appreciation of our form of government will be enhanced.

Kranz, Chief of the Flight Control and astronaut Armstrong, were selected for accomplishments which "reflect a high degree of excellence and uncommon devotion."

Among previous winners of the award are Maxime A. Faget, Christopher C. Kraft, Jr., Wesley L. Hjernevik, Joseph Shea, George M. Low, and John D. Hodge.

## 12-14 Crews fly to faraway spots "Bullseye" tour starts Monday;

### 14 crew trains in Mexico

0700 is early in the day any day. But it's as good a time as any to start a round-the-world tour. Monday morning at 0700. Air Force 1 will be taking off from Ellington Field, carrying the Apollo 12 crew, their wives, and the whole tour group on a goodwill journey which will circle the globe. Some 34 days later they will be home again, having visited 23 far-away places.

First stop will be Caracas, Venezuela. Then on to Lima, Santiago, Panama City, the Canary Islands, Lisbon, Luxembourg, Copenhagen, Helsinki, and Bucharest. They should be reaching Vienna at just the right time for the opera season. Rabat (Morocco), Tunis, Abadjan (Ivory Coast), Dar es Salaam (Tanganyika), Tananarive (Madagascar), Colombo (Ceylon), Rangoon, Phnom Penh (Cambodia), Djakarta, Tokyo, Osaka, and either Honolulu or Anchorage will complete the tour.

As with the Apollo 11 "Giant-step" tour, the bulk of the "Bullseye" tour will be dedicated to official ceremonies and state functions. Attempts have been made, however, to intersperse the crew's official duties with a few "breather" spells. A trip to the Japan World Exposition—"Expo '70"—has been included in the itinerary. A few other people must be planning to visit Expo too — hotel facilities are already

spoken for as far away as Tokyo, so the trip will also include a ride on Japan's famous "bullet train" from their hotel in Tokyo to the Exposition in Osaka.

### 14 crew to Mexico

Meanwhile, the Apollo 14 prime and backup crewmen will take part in a 5-day geology field trip in the Pinacate Mountain Range in an area located about 25 miles southeast of Sonora, Mexico, which is just across the border south of Lukeville, Ariz.

The area is a volcanic field and the crew will observe and be briefed on several large craters and a variety of volcanic rock types. The first two days will be devoted to looking the area over and briefings by the geologists accompanying the crew. The last three days will include practice lunar surface traverses along with other geology work. Apollo 14 prime crewmen on the trip will be Al Shepard and Ed Mitchell, along with backup crewmen Gene Cernan and Joe Engle.

## Dave Bell: Civil Servant for 1969

Words like "outstanding aptitude and enthusiasm", "thoroughness and accuracy", and "superior abilities" won MSC's David Bell III one of five Houston Area Federal Business Association awards as the 1969 Civil Servant of the year.

His official duties as Chief of the Fuel Cell Power section of PPD would keep him plenty busy, but Dave makes time for his duties as President of the EAA, for which he is widely known. Fewer people know that during his career at MSC he has received four Group Achievement Awards, the NASA Apollo Achievement Award, and four Suggestion Awards for cost savings and increasing safety.



David Bell III  
PPD

# MSC Cafeteria

## says

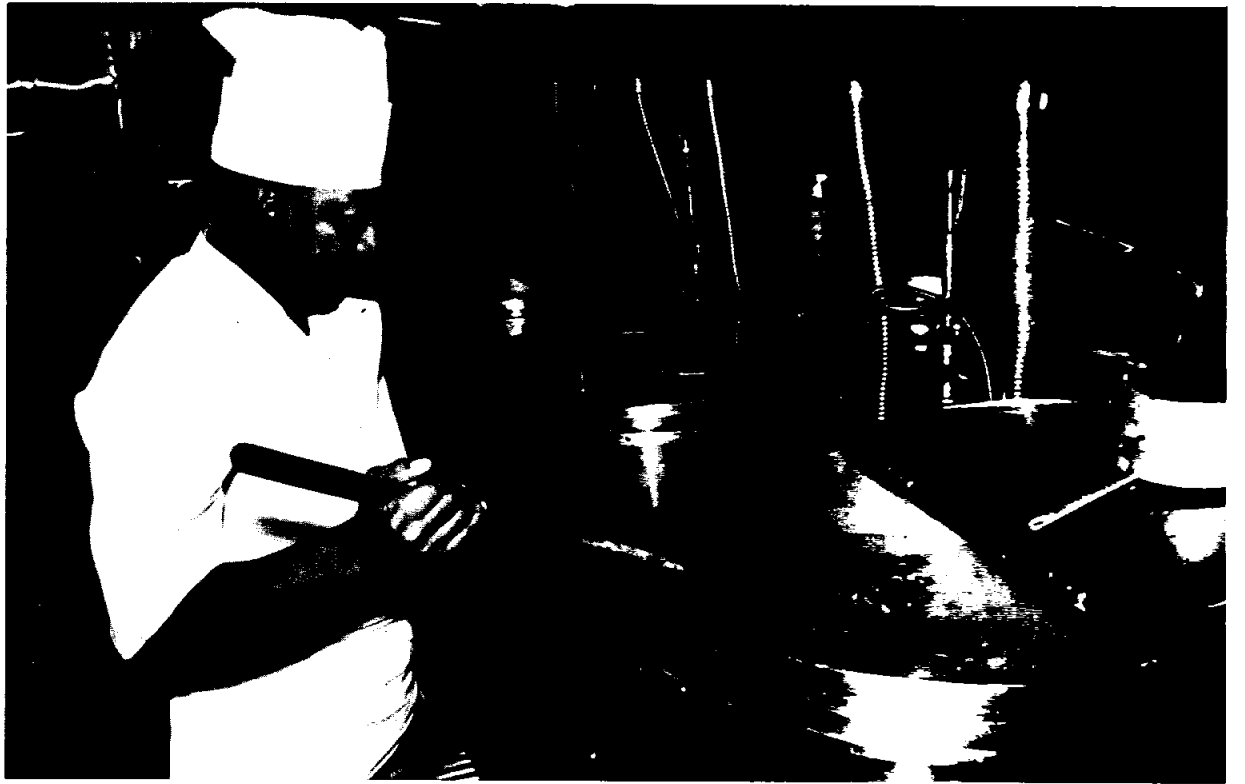
### "down with brownbags"

If an army travels on its stomach, what does MSC travel on? Brown bags, off-site jaunts, cans of Metrecal, and, for some 2,500 people a day, the MSC cafeterias.

Bob Corley, the man who runs the cafeteria, concedes that all these competitors have had an effect on the cafeteria. Ever since NASA 1 sprouted pizza parlors, all-you-can-eat, chicken, burger, and tortilla eateries, the cafeterias have had to face facts. They have

to provide good food, fast service, and reasonable rates.

Human nature being what it is, some griping seems inevitable, and any man who has waited in military chow lines will be hard to convince, but Corley and his crew of 52 are game to try. The building 3 buffet line has been their answer to gourmet demands. The building 11 buffet is for heartier, all-you-can-eat appetites. Each has received a measure of



Chef Leroy Turner gives the 80-gallon pot of vegetable soup a stir. Some 200 gallons of this cafeteria staple are dished up every week.



These rounds of roast beef will soon be ready for carving at the buffet table in building 3.

support, although the a-la carte lines still get the bulk of the business, with spaghetti heading the list of "most popular".

One "plus" for the cafeterias is the monthly "Customer Appreciation Day" specials. You never know when they'll be scheduled, but sometimes 85¢ will get you anything from rock cornish game hen with all the extras, to T-bone steak.

The cafeteria is a non-profit operation run under the supervision of the MSC Exchange Council. Bids are taken weekly from suppliers of meat and produce to assure that we get the lowest prices available. Naturally, the greater the number of people served, the lower the cost to everyone. So don't be shy about giving suggestions for new dishes or changes which might help service and encourage more people to forsake their brown bags.

If possible, left overs are incorporated into new dishes. The most familiar "leftover" is probably the vegetable soup; about

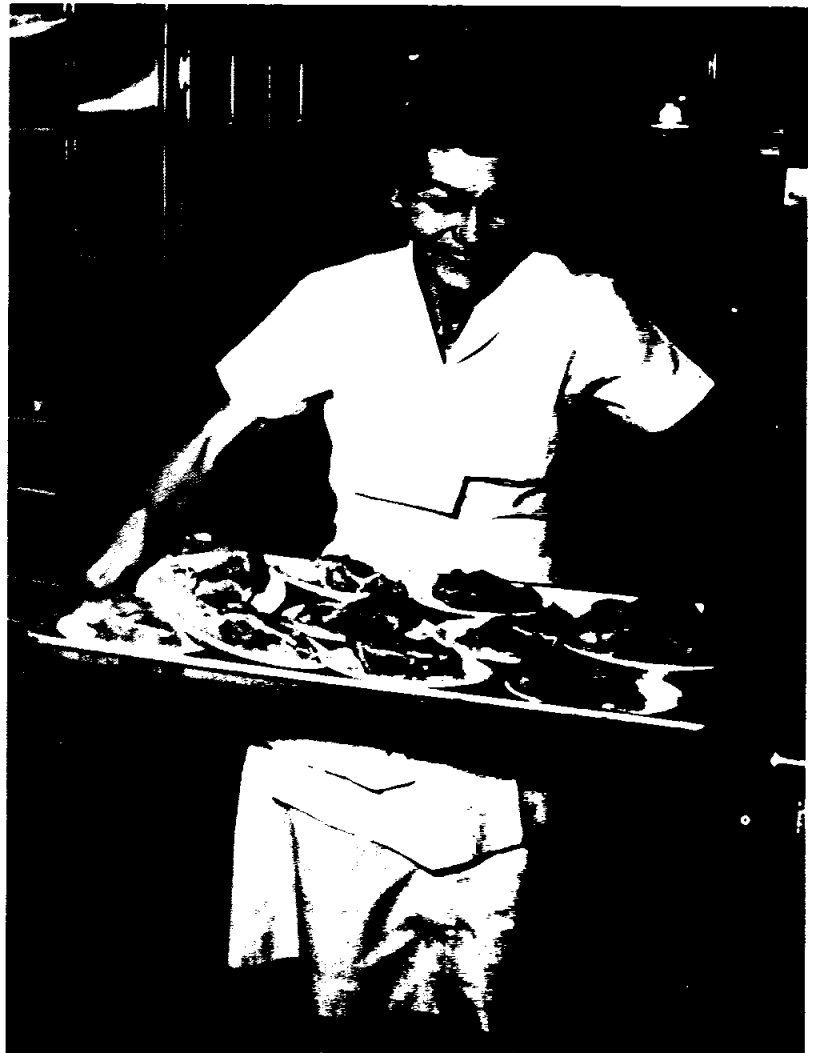
200 gallons of it each week, steamed up in 50 gallon pots. The roast beef from the buffet table shows up in custom-made sandwiches; the ham graces the chef salads.

The cafeteria provides other services too. Hot breakfasts are served from 7am. Buffets can be set up anywhere at the Center; almost any menu can be catered for private parties off-site. Coffee service can be arranged, complete with china and silver. Sundays from 12-5 pm the cafeteria is open as a snack bar to serve visitors to the Center.

You've probably heard gripes about the cafeteria — now how about hearing some of their gripes about you? The major problem is

caused by people who don't read the signs. Putting china and silverware on the conveyor belts can cause the belt to jam when it makes a turn; circuit breakers cut out, the conveyor belt stops, and trays end up stacked on the floor. The solution is simple: Put china and silver on a tray before sending it through. If there's a breakdown, tell the cashier—she will relay the message.

Other than that, the cafeteria staff wishes people would just believe that they're friendly. They want to provide the foods you like at the cost of making and serving them. And the more people who make the cafeteria a habit, the lower the cost to everyone.



Bakery goods for the cafeterias are prepared by Houston area bakeries. Only the cornbread is made in MSC ovens. Here, Billie Tedford brings on the pies.



Irma Spencer rolls out some of the large pans of vegetables used to serve the 2,500 people who eat at the cafeteria each day.

## Sign-ups for golf

Officers of the MSC Golf Association met last week to discuss plans for the 1970 season. These plans currently include a series of nine tournaments, four-ball competition, and individual match play. The first tournament is tentatively scheduled for March.

All MSC and contractor personnel desiring to participate this year must submit their membership application no later than February 27. Club President Bill Whipkey, x5827, has application forms.

Other officers are: Ivan Ertel, VP and membership chairman; Dick Hart, tournament chairman; and Jim White, trophies and prizes chairman.



**Golf Club trophy winners**—Winners in the tournament and four-ball competitions received their trophies recently. Shown in the back row, left to right, are: Max Engert, Sam Glorioso, Ken Young, John Jones, Olin Graham,

Jim White. Bottom row: Jim Strickland, Ed Cawley, Bill Whipkey, Chuck Levy, Bill Dusenbury. Not present: Bill Chase, Dwayne Forsythe, Lou Braun.

## Toxophilites to duel

The Toxophilites Archery Club challenges all comers to an indoor archery shoot. The shoot will be held at the Galveston County Park pavilion in League City on February 28. There will be shoots at 3pm and 7 pm. Competition will be divided into flights for both youth and adult archers, depending on handicap. There will be an open class for the unregistered archers. Registration will be \$1.50, but admission to come and watch will be free. Call Sam Ankney at 932-5275 for more information.

## Basketball battle shapes up

Tip-off for the first game of the MSC-Contractor Tournament will be at 6:25 pm Tuesday, February 24, at the Webster Junior High Gym. The tournament will run for four days. It will feature the top five Competitive League teams from the MSC league and the top 5 teams from the Contractor league, including teams from Lockheed Link, and Boeing. The EAA and contractor athletics associations will be sponsoring the contests jointly. Come and root!

## Texas Ex-es meet

The annual Texas Independence of Texas Ex-Students Association Day meeting of the University will be held on February 27, 1970. This year, Dr. Norman Hackerman, President of UT at Austin will speak. Dinner and cocktails will precede Dr. Hackerman's speech. For reservations, call Bob White at 877-3272, or Tom Moser, at 877-3048. All welcome.

# 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

Rent: 4-2-2, new brick, x2895, Coward  
Rent: 2-1-2, CLC townhouse, patio, storage area, \$200/mo, available Feb. 1, x3661, Deans, or 488-4009.

Lease 3-1-2, Dickinson, 100x300' wooded lot, fireplace, dishwasher, central heat, a/c, 534-3158 after 4.

3-2-2 CLC townhouse, Ramada Dr. near rec. center, 6° FHA, low equity, Wieland, 488-2593

### AUTOS

60 Mercury Monterey, 4-dr, rebuilt transmission and new brakes, good work or school, \$225, 482-7775 or 483-3216, Morris.

69 Ford Ranger, V-8, standard, air, LWB, radio, West Coast mirrors, \$2,100, Stevens, x3491.

65 Ford XL automatic, power steering, air, highest bidder, 941-1929 or 483-4091.

65 T-bird, air, power, polyglas tires, \$1295, Dickinson, 534-2607, Bazhaw.

67 T-bird, 2-dr htdp, loaded, 46,000 miles, minor repairs, \$2100, 483-3485, Kiehn.

66 Malibu convertible, 4-speed, air, power, excellent condition, \$1300, x3001, Wylie, or 591-2798.

60 Falcon station wagon, standard, good work car, \$200, x2051, Springfield, or 488-4373

66 Pontiac GTO, girl's car, very low mileage, full power, air, automatic, \$1295, 926-8994, Oczkowski

65 Comet, auto., air, needs some work, good second car, \$650, 944-3166.

63 Cadillac 4-dr deVille, new paint, exhaust, trans, air, brakes, shocks, all power, x4757, Hoover, \$1000.

68 Chevy Impala sports Sedan, air, power, AM/FM, 15,000 miles, \$2200, Weitz, 591-3071

64 Corvair Monza, automatic, 110 hp, Maroon, HU3-2741, Bauch

51 Nash Statesman, radio, heater, wsw, \$150, 591-2395

67 VW sedan, radio, air, leatherette, original owner, \$995, 591-4641, Sauter

62 Mercury Monterey Custom, 2-dr-ht, automatic, air, power steering, radio and heater, \$350, Holloway, x2766 or 941-0262

64 Chevy Impala, 9 passenger station wagon, V8, auto; air, power, radio, \$900, x4171, Nariff, or HU2-7546

66 Pontiac LaMans, 2-dr, htp, bucket seats, console, power, a/c, auto, whitewalls, 47k miles, all white with red interior, \$1125, x2111, Garman, or 877-2939

62 Studebaker 4-dr, V8, auto, r & h, air, looks good, runs well, needs no repairs, \$400, x4757, Hoover

65 Ford PU 1/2 ton, air, radio, new tires, \$975, 932-3906 (League City).

67 Suzuki X-6 Hustler, \$250, Campbell, 488-3635

67 Chevelle 55396, air, 4-speed, perfect condition, \$1595, Oczkowski, 483-5595 or 936-8994

67 Dodge Dart, 4-dr, automatic, 6 cyl, air, radio, excellent condition, 591-3282

62 Chevy II, 4-dr, 6-cyl, a/c, \$350, 534-6773 (Dickinson)

66 Chevelle 396 SS, air, radio, heater, 5-speed, bucket seats, excellent mechanical condition, below NADA wholesale at \$1195, Hooper, 877-1328.

60 Ford sedan, standard trans, good tires, good work car, \$190, 932-4035.

65 Renault Dauphine, good body, 40k miles, rebuilt engine, \$325, Browning, 932-2750.

66 GTO, V8, 4-speed, air, power steering, radio, vinyl top, \$1495, Owens, 932-3011

67 VW fastback, radio, heater, air, extras, low mileage, excellent, \$1500, x7505, Martin, or 471-2540.

### MISCELLANEOUS

1 double-bed size mattress, box springs and frame with casters, \$25, 944-5019, Eubanks

Rear seat for Dodge van, never used, cost \$75, take \$35, Mobley, 488-1259

Double bed, box spring & mattress, with bookcase headboard, 488-4139, Wilson.

Tanaka surfboard, 8'4", V-bottom, \$70, Ligrani, 877-4405 after 5.

8' cab-over camper, butane bottle & jacks, needs minor repair, \$450, Laird, 471-3475, LaPorte

Capacitive Discharge Ignition unit, \$23 for group order, 932-5477, Meeker, or 482-3052, Heath.

Apartment size Coldspot refrigerator, good condition, \$30, x4731, Homick.

69 Philco entertainment center, contemporary, 23" color, AM/FM stereo, \$550, excellent condition; 534-2167, Tarpley.

30" Kenmore gas range, white, full size oven, timer, clock, \$85, clean, good condition, Lofgren, 471-4589

15' fiberglass, 40 hp Evinrude, Little Dude trailer, like new, 487-0178, Berkley

Facial Sauna, used only once, \$20 new, now \$15; also b/w 17" TV, not in working condition, make offer, 488-2248, Cubley

Trailer hitch, for 62 Chevy, valley chrome, \$5; Chevy 13" wheels free, 487-2266, Ward.

Two tires, 8.55x14, four-ply polyester, less than 400 miles, cost \$45 each, both now for \$50; also AM/FM hi-fi with stereo record player and amplifier built-in, \$80/portable belt sander, \$10; two 1/4 inch tape recorders, \$10; 488-2797, Koepke

Singer portable sewing machine, all attachments, carrying case, good condition, \$25, 932-5134, Pope.

Camper, 8' slide-in, sleeps 2. Equipped with ice box, chemical toilet with holding tank, closet, cabinet, seat lockers, \$350, Cree, x2848 or 487-1158

Mr. & Mrs. living room chairs, modern style with green flowered design and white background, both for \$35, 944-8241

Electric dryer, 220v, reconditioned, \$40; Stanley router and cutters, \$25; Craftsman paint sprayer compressor, \$15; Craftsman 10" circular benchsaw, 4" joiner on stand including extra blades, table extension and daddo head, \$150; 2hp 2-cycle Jacobsen Lawnmower engine, \$15; 9 1/2 hp Johnson 1969 model outboard motor run less than 12 hours, \$300, 877-4921, Chauvin.

Beautifully grained walnut lane cocktail and end tables, matching lamps and pictures also, 488-0125.

35 cup automatic coffee pot, \$5; handmade Appalachian Dulcimer, cost \$75, sell \$40, Elliott, x2468.

14' sailboat, fiberglass, cabin, 2 bunks, equipment includes anchor, compass, electrical system, cushions, etc., \$1000 with trailer, x2848, Cree, or 487-1158

Snow skis, wooden, newly refinished with never-used safety bindings, \$45, 591-4627, Allgeier.

Super 8 movie projector, Sekonic 260-S, brand new, never used, \$75, Rosenbaum, x4776, or 474-4386

8 1/2 x 11' tent, fair condition, about 5 years old, \$15, 488-3238

Sansui-100 speakers (2), retail for \$280, sell for \$170, 474-2123, Pedersen.

Flintridge china, Miramar pattern (grey and rose), eight 5-piece settings plus extras; worth \$250 make offer, 482-7877

Skis, Holiday, 190 cm, wood, with Conquer cable bindings, \$15, HUB-3241.

14 watt Philmore stereo amplifier, pre-amp, and Mayfair solid state portable tape recorder, x3509, France

18' fiberglass centerboard sloop, sleeps two, also sails, cushions, trailer, extras, excellent condition, x4713, Williams.

Surfboard, \$50, 932-3906 (League City)  
Lido 14, new condition, late model with full flotation, latest rigging, orange deck, white hull, best offer over \$1,200, Mandell, 877-2925

One 5-drawer maple chest with woven cane accent, \$48; step end table with light, \$6; two red butterfly chairs for patio, \$3.50 each, x2201, Klotz, or 488-1514

Two complete SCUBA rigs, in date, plus spear gun, weighted belt, all \$200, 944-5344

18' Raysoncraft ski boat and trailer, low profile hull, 500 hp/427, Oczkowski, 483-5595, or 926-8994

Free "Basic Sailing Course" sponsored by Clear Lake Lido Fleet 40, classes start Feb. 19, 877-3366, Hoover

Aurora 21, sleeps 4, dry sailed at Hou. Yacht Club, working sails plus genoa and spinnaker, 925-3312, Young.

'68 model 23' Imp 1/O, SS and depth recorder, 482-1653, Humes

Guitar lessons, specializing in folk and classical technique, \$10/month, no children, 649-4872, Gorman

17' fiberglass Volvo 1/O, perfect condition, rigged for offshore, \$1850, GR1-4539

### WANTED

Solid maple twin bedsteads, triple dresser or large chest of drawers, lingerie chest, excellent condition, 944-6155, Martin

Lost—Cross sterling silver mechanical pencil; call Cartledge, 482-7464

Used piano suitable for young beginner, 591-3071, Weitz

Microscope and tools for child; not interested in \$10 to \$15 toy items, 482-7877, Faber

Good used typewriter, x2231, Law, or 944-7596

Round bed; x3305, or 932-3881 after 5 pm.

18' Thunderbird 1/O, CR1-4539

Electric paint sprayer, 3/4 hp motor, air tank, about \$50, 944-4153, Nobles

### PETS

Beagle pups, AKC registered, tri-colored & two rare brown/white pups, 6-weeks, wormed and shots, males, \$35, females, \$30, 946-8245, Abel.

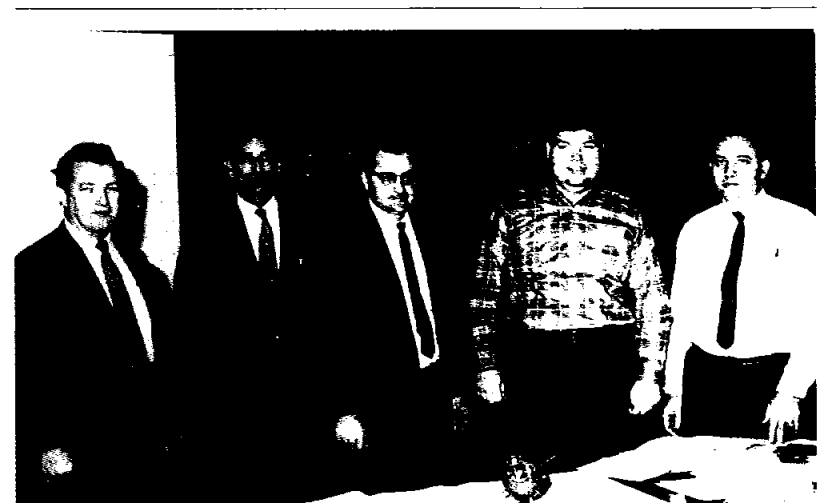
Registered American Sheep Terriers, excellent with children and very hardy, x6301, Seyl, or 591-2366

Miniature Silver Poodles, 6-weeks old, AKC registered, \$50; 932-3906 (League City)



Otis Graf accepted his "Silver Snoopy" recently from astronaut Tom Stafford. He was selected for the award because of his outstanding performance as a guidance system analyst in the Mission Planning and Analysis Division.

Since then, Otis has decided to take time to become even more proficient—he is currently studying full-time on a Master's degree in Aerospace Engineering at the University of Texas.



The first MSC "students" at the NASA Systems Management course pose for the folks back home.

The course is given in Virginia, sponsored by NASA Headquarters. Current plans are for hundreds more Systems Managers, from MSC and other centers, to attend the course.

Pictured here, left to right, are: Owen Maynard, James Stokes, Jr., Paul Svejkovsky, Walter Guy, and Edwin Hoskins.

## EAA lures you to sunny seas

"Sunny Happening", a film about the Grand Bahamas, will be screened February 24, at 5 pm, in room 266 of building 16.

The EAA will be running the film, in hopes of encouraging more folks to join the 8-day/7-night trip to the Grand Bahama Hotel, May 2-9. Cost for the trip will be \$229 per person, double occupancy. The film, though, is free.

EAA reps have brochures on the upcoming trip, and all the extras which the price includes. If you prefer, call EAA President Dave Bell, x3286, or Pat Hughton, x5261, for further details.

### Don't Forget!

The EAA Youth Ice Skating Party on Saturday, February 21. Call Martha Caballero, x 2421.

## OPINION:

by  
Sammy Smoker

You all know Sammy Smoker. He's the guy who sits next to you in a meeting and blows smoke in your face and smiles as if he's doing you a favor. In a closed-room meeting, you will quickly be aware of his presence as your clothes and hair absorb the stink and you carry this "stale aroma" with you all day long. Sammy puffs and smiles while you gag and suffer.

Yes, Sammy Smoker forces you to "enjoy" his habit with him. You know what they say—misery likes company—but in this case, company does not like misery. To his calloused throat and lungs, smoke may be a pleasure, but to us it's an invasion of our right to breathe clean air.

Everyone of us who wants clean air in our offices and meetings should speak up and make



the Sammy Smokers, Charlie Cigars, and Peter Pipes aware that we do not appreciate being forced to breathe their cancerous smoke-filled air. We owe it to ourselves and to them to do something about it.

We recommend first that smoking be prohibited in conference rooms, unless it is democratically determined that smoking will be allowed within the confines.

We want Sammy Smoker, Charlie Cigar, and Peter Pipe to get the maximum enjoyment from their habit, but Carl Clean, Larry Lungs, and Harry Health have rights to be considered, too.



Gifts and mementos went to supporters of the EAA not long ago, at the traditional "changing of the guard" ceremony for outgoing officers.

Special awards went to guests Helen Ragsdale and Lester Wynn, for their outstanding support in promoting EAA activities.

Officials and honored guests at the ceremony, shown above from left to right, are as follows: Helen Ragsdale, Dennis Doherty, Martha Caballero, Jeff Vyner, Ron Hayes\*, Shirley Brown\*, Bert Matthews\*, Cookie Underwood, Lester Wynn, and Dave Bell. Not present for the picture were Jerry Haptonstall\*, and Helon Crawford\*. \*denotes outgoing officers.

## MPAD Scratchpad

Jocko Shannahan nominated for a meritorious bonehead star award for being assessed five technical fouls for a single tiny incident while defending the glory of the Association and honor of the MPAD Purple. Accordingly, he was removed from the game and subsequently to the showers —no? Ah! Past the showers and out of the gym. The Association lost, but still tied for first at last report\*\*\* Bill Conway and wife expecting in September\*\*\* David Dudley DeAtkine is studying Roaring-Boring Alices at Fort Curchill, in Canada. Average temp is -20' this time of year with 40 inches of snow.\*\*\*It's up and over for Bill Tindall, new deputy director to Mr. Sig Sjoberg.\*\*\*Favorable floor plan approved!

Work should begin soon on the MPAD Advanced Mission Planning Lab to be located in the 7094 area. The hybrid lab will be extended to the present turn-in counter.\*\*\* Riddle: invent and implement a room numbering system (including a directory by the elevators) such that a total stranger could find a room or a person easily within the division. Floor plans available.\*\*\*Adios to MPADDERS Frank Smith and Paul Flanagan. Frank, to Vietnam, and Paul to Florida. Party plans pending.\*\*\*Marilyn Mullins and John want to thank everyone for the luncheon and wedding gift. Next summer sometime they promise a home-style barbecue in return.

## ROUNDUP

NASA MANNED SPACECRAFT CENTER HOUSTON, TEXAS



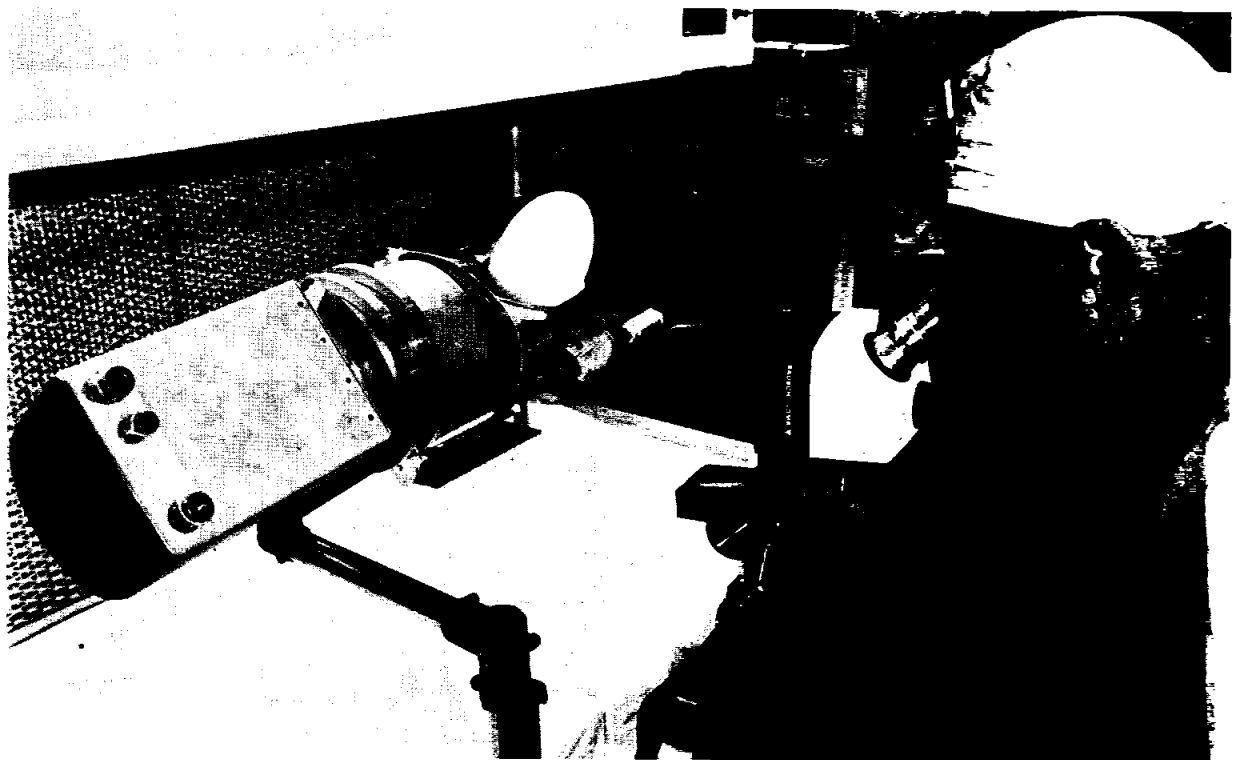
The Roundup is an official publication of the National Aeronautics and Space Administration Manned Spacecraft Center, Houston, Texas, and is published every other Friday by the Public Affairs Office for MSC employees.

Editor ..... Sally LaMere  
Staff Photographer ..... A. "Pat" Patnesky

## Lineberry gets Sperry Award

Mr. Lineberry, Chief of the Orbital Mission Analysis Branch of MPAD, received widespread recognition for his contributions to space science at the Anaheim meeting of the American Institute of Aeronautics and Astronautics, where he received the Lawrence Sperry Award. The Award is given by the Sperry family for "a notable contribution made by a young man to the advancement of aerospace".

Specifically, the certificate and \$500 award were presented to Lineberry for "significantly advancing the field of rendezvous mechanics through developing the spacecraft maneuver log logic and associated control techniques, and formulating the mission plans which contributed decisively to the success of all rendezvous operations conducted during U.S. manned space flights."



Well it sure looks like a stoplight! But it's the Surveyor III spacecraft's television camera, its mirror looking like a silver traffic signal. The camera, and the various other parts of Surveyor III which astronauts Conrad and Bean snipped off for study on Earth have been undergoing examination by scientists and engineers at JPL, Hughes Aircraft Company, and several other institutions.

Their report reveals that more damage was probably done by the landing of the Apollo 12 LM than by the previous 950 days the Surveyor sat on the Moon. The LM, it is postulated, "generated a dust shower that affected the Surveyor and sand-blasted the camera surface facing towards it".