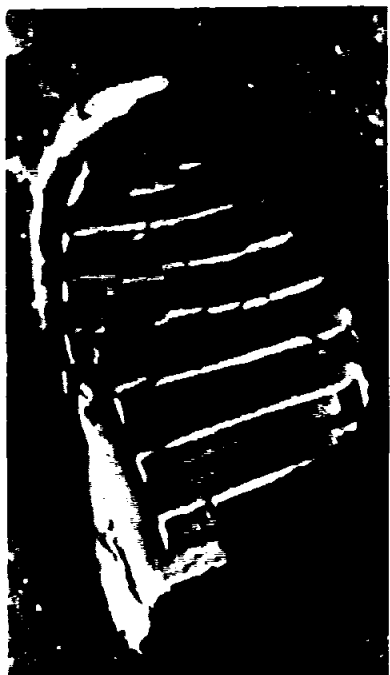


1969: we reach the goal



Since the first glimmer of reason entered the brain of primeval man, he has dreamed of reaching out and touching the moon.

In 1969, four men from MSC did reach out and touch the moon to fulfill not only the ancient dream but also to meet a national goal set eight years earlier.

Apollo crews went to the moon three times during the year and landed on two of the missions. But before a landing could be attempted, the lunar module of the Apollo spacecraft stack was first checked out in earth orbit on Apollo 9 and in lunar orbit on Apollo 10.

The dream became a reality July 20 when Apollo 11 commander Neil Armstrong stepped off the LM footpad to make his "small step . . . giant leap". Apollo 12 brought in the era of the pinpoint lunar landing when in November Charles Conrad and Alan Bean and the LM guidance system steered Intrepid to land on the very edge of the Surveyor III crater.

The past year at MSC brought not only a major share in the making of space history, but also recognition for the center's people for their parts in making things happen. For some, assignments changed: veteran spaceflight crewmen became managers; other managers moved up the ladder and still others moved into other fields.

Chronologically, and once over easy, 1969 looked like this:

January—The crew for Apollo 11 was named but it was uncertain whether the mission would be a landing attempt. The "go" for landing depended upon man-rating the lunar module in Apollo 9 and 10.

Late in January, sea trials were run with the Mobile Quarantine Facility out of Norfolk, Va. as a shake-down for using the MQF for housing returning lunar landing crews.

March—Using radar, photographic techniques, an MSC Earth Resources aircraft, staging out of Shannon, Ireland conducted sea-state studies over the North Atlantic.

The Lunar Receiving Laboratory's Crew Reception Area got

a week-long dry run as 15 people simulated a post-lunar mission crew quarantine.

April—Flights with the Lunar Landing Training Vehicles were resumed after modifications to the control system. Two LLTV pilots, Neil Armstrong and Joseph Algranti, had to "punch out" during 1968 when the craft exceeded attitude limits in flight.

It was announced in April that Apollo 10 would carry a color television camera for relaying earthward a standard-scan color picture.

MSC Earth Resources aircraft surveyed several sites in Mexico under a NASA-Mexican National Commission for Outer Space agreement. The survey included geology, geothermal, hydrology, agriculture and oceanography disciplines.

The crew for the second manned lunar landing was named. Charles Conrad, Richard Gordon and Alan Bean were selected to man Apollo 12.

May—Apollo 8 commander Frank Borman hung up his space-suit to become field director for MSC for coordinating task group efforts on manned space station and space shuttles for mid-70s operations. The aerospace industry had received requests for proposals late the previous month.

Alan Shepard, first American in space, went back on flight status after several years in a dual-only aircraft medical restriction because of an inner ear disorder. Later in the year, Shepard was named to command Apollo 14.

June—Apollo 9 commander James McDivitt was named man.

(Continued On Page 2)

. . . a new decade opens

We have come to the close of a decade in which man surpassed himself in technological achievement at the same time he was suffering increasing doubts about his ability to solve some of the oldest problems of this globe—hunger, poverty, and human strife.

Now a new decade opens with all the old problems still before us but with an increasing number of voices which say that if man can organize himself, discipline himself and find the ingenuity to go to the moon surely he can restore his environment and find a way to communicate with his brothers.

At the Manned Spacecraft Center we have had a unique opportunity to share in and to shape one of the greatest endeavors in the history of the world. The 70's emerge as an era in which even greater challenges and the tools to meet those challenges seem to come together.

The proven team which has been assembled at the Manned Spacecraft Center is a national resource. It may even be a prototype of the kind of multifaceted organizations which will have to be created to meet the big problems of the 70's. The chance to occupy a place in the forefront of the next decade is assured to us if we want it. I know you are as anxious as I am to continue in a place of leadership and equally as sure of our ability to do the job well, whatever it may be.—Robert R. Gilruth, Director, MSC



"Mission Control," pencil-and-wash drawing by Maxine McCaffrey

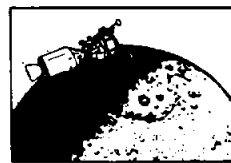
ROUNDUP

NASA MANNED SPACECRAFT CENTER

HOUSTON, TEXAS

VOL. 9 NO. 5

JANUARY 2, 1970



Apollo 13 to land at Fra Mauro

The Fra Mauro area has been selected as the landing site for Apollo 13 lunar landing mission, and preparations are under way to meet the March launch window. The Apollo 13 space vehicle was moved by mobile transporter from the NASA Kennedy Space Center Vehicle Assembly Build-

ing to Launch Complex 39A on December 20.

The decision is based on a review of the photographs taken of the Fra Mauro area and successful demonstration of pinpoint landing techniques by the Apollo 12 mission.

NASA is continuing to assess the effects of lunar dust on visibility during the final portion of the landing phase as reported by the Apollo 12 crew.

Fra Mauro is a flat, vast highland area located at 17 degrees 36 minutes west longitude and 3 degrees 48 minutes south latitude, approximately 110 miles east of the Apollo 12 landing point in the Ocean of Storms.

The site of the Fra Mauro formation is an extensive geologic unit covering great portions of

(Continued On Page 2)

Apollo 11 rock sample investigators to tell all at January conference

One hundred and forty-two U.S. and foreign scientists will present results of their detailed analysis of Apollo 11 moon samples at the Lunar Science Conference to be held in Houston January 5-8, 1970.

The scientists, representing industry, university and government laboratories throughout the world, have been examining for the past three months more than 1,500 separate moon samples returned in America's first lunar landing on July 20, 1969. The four day conference represents the largest gathering of lunar scientists at what is the most significant scientific meeting in the 11 year history of the National Aeronautics and Space Administration.

Approximately 1,000 scientists, university, and government officials are scheduled to attend the Lunar Science Conference which will be held at the Albert Thomas Exhibit and Convention Center in downtown Houston. The list

of invitees, in addition to the 142 lunar sample principal investigators and their co-workers, includes outstanding national and international scientists, the President's Science Advisory Committee, members of the National Aeronautics and Space Council, university representatives, members of lunar and planetary subcommittees, Lunar Science Institute officials, and federal, state and local officials.

The first day of the conference will be a general session covering all scientific disciplines, followed on succeeding days by two parallel sessions organized by discipline. Invitees and principal investigators are expected to attend the general sessions and the parallel sessions and expected to draw 400 to 600 per meeting.

The parallel sessions will be divided into the following disciplines: mineralogy, analytical chemistry, physical properties, isotopes, cosmic ray and solar

wind, and organic chemistry. The daily sessions are scheduled to begin at 9:00 am and conclude at 5:30 pm.

Samples from Tranquility Base collected by the Apollo 11 crew were distributed to 106 principal investigators in the United States and 36 in eight other countries. (Australia, Belgium, England, Canada, Finland, Germany, Japan and Switzerland). Distribution of approximately 18 pounds of rocks, fines and thin sections—about one third of the Apollo 11 lunar material—was made on September 12, 1969, following a 50-day preliminary examination at the MSC Lunar Receiving Laboratory (LRL).

The preliminary examinations conducted at the LRL, disclosed the Tranquility Base samples were of two basic rock types: (1) compacted lunar soil and, (2) igneous rocks.

Lab tests show Apollo 12 camera tube half burned

A preliminary examination of the Apollo 12 lunar module television camera which stopped transmitting a usable picture from the lunar surface indicates there are no mechanical or electronic failures. The preliminary examination indicates the top portion of the tube is burned.

The camera's TV tube was sectioned in a vacuum atmosphere, then underwent extensive analysis at the Westinghouse tube plant at Elmira, New York.

As part of the preliminary examination, the automatic light control circuit was interrupted by cutting a wire. After the circuit was disabled, a picture was visible on the lower half of a monitor, indicating the lower part of the tube was functioning.



We reach the goal

(Continued From Page 1)
 ager for Lunar Landing Operations in the Apollo Spacecraft Program Office.

July—The goal of the decade was reached when Eagle touched down at Tranquility Base and Armstrong and Aldrin planted the United States flag on the lunar surface. The plaque on Eagle's talon said, "We came in peace for all mankind."

August — Scientists in the MSC Lunar Receiving Laboratory placed samples of lunar material from Apollo 11 through every type of analysis known to man to determine their origin and whether any life forms existed in them. Scientific experiments left on the lunar surface continued to relay data back to earth.

Seven USAF Manned Orbiting Laboratory astronauts joined the MSC astronaut group after the MOL program was cancelled.

Two Apollo mission crews were named: James Lovell, Thomas Mattingly and Fred Haise to fly Apollo 13, and Alan Shepard, Stuart Roosa and Edgar Mitchell, Apollo 14.

September — The first lunar samples from Apollo 11, totaling 4.2 kilograms, were distributed to 106 American principal investigators and 36 PIs in eight other countries.

James McDivitt was named manager of the Apollo Spacecraft Program Office, replacing George M. Low who entered a holding pattern on assignment to the Director's staff. MSC Deputy George Trimble resigned to return to private industry.

October — Soviet cosmonauts Maj. Gen. Georgii Beregovoi and Konstantin Feoktistov visited MSC for a day-long tour of crew training and Mission Control facilities.

The Lunar Science Institute occupied the refurbished West mansion adjacent to MSC. After

years of sitting prey to vandals and decay, the former Xanadu of cattle-oil baron James M. West, Sr. was restored to its earlier elegance.

New faces at MSC in October included Frank A. Bogart, who replaced Wesley Hjernevik as MSC Associate Director. Hjernevik left NASA to become deputy director of the Office of Economic Opportunity. Dr. Gene Simmons of Massachusetts Institute of Technology was named MSC chief scientist, and Anthony Calio became MSC Director of Science and Applications replacing Dr. Wilmot Hess, who left MSC in September to join the Environmental Sciences Services Administration.

Dr. Persa R. Bell, Lunar Receiving Laboratory manager, resigned and will return early in 1970 to the Oak Ridge National Laboratories.

November — The color television camera carried aboard Apollo 10 was refurbished and modified for Apollo 11 lunar surface EVA operations. The camera failed shortly after being unstowed, but turned out to be the only failure in the otherwise perfect second manned lunar landing mission.

George M. Low was nominated by President Nixon to become NASA deputy administrator — a post vacant since Dr. Thomas Paine succeeded James Webb as administrator. Low's appointment was confirmed by the Senate in December.

A similar shift at center level moved Christopher C. Kraft, Jr. into the MSC deputy director's chair.

As the year came to a close, many people at MSC were catching up on annual leave that a four-mission schedule did not permit them to take earlier.

And what will 1970 bring? Perhaps a new goal to aim toward for 1980.

Mexican Fiesta Trip

All NASA and contractor employees are invited to join a trip this February 21 to Laredo, Texas, for the annual George Washington's Birthday Fiesta. The MSC Spanish Club is sponsoring the trip. The fiesta lasts 2 days. There will be bullfights, parades, carnivals, dancing, and sightseeing in both Laredo and Nuevo Laredo.

A bus has been chartered for the occasion. The cost will be \$16 per person, round trip. Reservations will be made on a first come first served basis.

Special hotel accommodation rates will be available.

January 16 will be the last day to make bus reservations. Make checks payable to the "MSC Spanish Club", and bring them to Mr. Harry Kline, Bldg 13, room 114.

Contact Rick, x5310, Nancy, x4546, Harry x4564, Norm, 4776, or Joe, x2141 for further information.

EAA children's party makes TV debut

Once again the annual EAA Children's Christmas Party was a big success. The World's Largest Christmas Card, flown in from Kansas City, arrived just in time for the big event. No-No the Clown entertained the children, played games and signed autographs.

Mr. and Mrs. Santa Claus and their beautiful helpers, dressed in long formal dresses, sang Christmas Carols and gave gifts and favors to all the children.

The news media were on hand to take photographs and record the events. The party thus made its big television debut at 6:15 pm on December 13.

The few gifts that were left over were given to the retarded children.

Special thanks to all who helped make the party possible.

Apollo 13

(Continued From Page 1)

the lunar surface around Mare Ibrum. Expected result of a landing there is an understanding of the nature, composition, and origin of this wide-spread formation.

Apollo 13 is expected to be launched from Kennedy Space Center, Fla., no earlier than 2:38 pm CST March 12.

Prime crew members are Spacecraft Commander James A. Lovell, Command Module Pilot Thomas K. Mattingly II, and Lunar Module Pilot Fred W. Haise, Jr. Haise is a civilian and Mattingly is a Navy Lieutenant Commander; neither has flown in space. Lovell, a Navy Captain, is a veteran of Gemini 7 and 12 and Apollo 8, and has more time in space than any other space pilot.

Grad. courses deadline: Jan. 9

MSC form 75 (Application for Training) must be in no later Friday, January 9, for MSC employees who wish to take classes beginning Monday, February 2, at the Houston Clear Lake Graduate Center. Send the forms to BP2. They will be used to determine whether payment of tuition and related fees by the Government can be authorized.

Registration will be held in the PAO Briefing Room of Building 1 on January 23, from 9:00 to 11:30 am and 1:00-3:30pm.

Courses to be offered are:

For additional information concerning the Graduate Study Program contact the Employee Development Branch at x7311.

- Engineering Statistics I
- Continuum Mechanics I
- Advanced Heat Transfer II (convection)
- Engineering Analysis II
- Theory of Function of a Complex Variable
- Selected Topics in Applied Mathematics
- Advanced Mechanics
- Special problems—seminar in Lunar Sciences
- Administrative Theory
- Human Behavior in Organizations
- Point Set Topology
- Introduction to Analysis
- General Astronomy
- Modern Physics I
- The Study of Public Administration

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

Ham satellite hitch hikes with Tiros into orbit

A 39-pound spacecraft designed and constructed by amateur radio operators, has been accepted for launch in January as a secondary payload aboard NASA's Tiros-M satellite.

Launch of Tiros-M with "Australis OSCAR-A" piggyback is tentatively scheduled for January 9 from the Western Test Range in California.

The piggyback satellite was built by a group of amateur radio

operators at Melbourne University in Australia, giving rise to the "Australis" portion of its name. The Radio Amateur Satellite Corporation (AMSAT), a group of United States amateurs, is preparing the satellite for launch, testing and qualifying it to comply with NASA requirements.

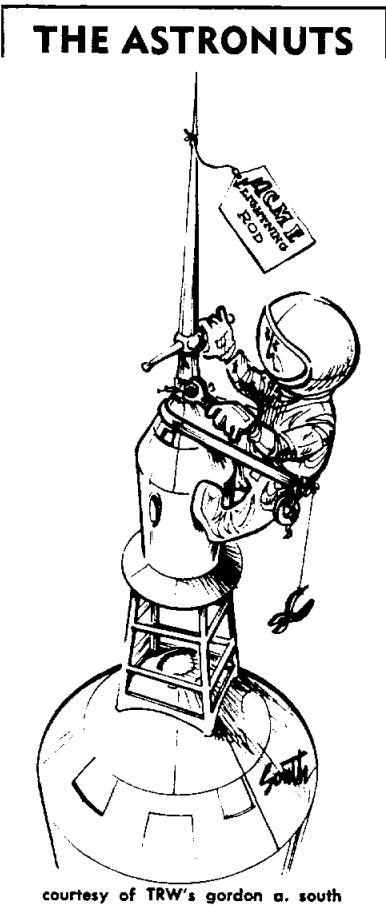
Australis/OSCAR-A, the first radio amateur satellite to be accepted by NASA as a secondary payload, will be known as Australis OSCAR-5 when it is successfully in orbit.

Australis OSCAR-A will transmit low-power signals on two amateur bands, at frequencies of 29.45 megahertz in the ten-meter band and at 144.05 Mhz in the two-meter band.

Gilruth named RAS Fellow

MSC Director Robert R. Gilruth last month was named an honorary Fellow of the Royal Aeronautical Society of Great Britain in recognition of his "outstanding leadership in space research and interplanetary travel, culminating in the historic moon landing in July 1969."

The presentation was made at the Society's Wilbur and Orville Wright Memorial Lecture in London December 4, but because of Apollo 12 activities at MSC, Gilruth was unable to accept the Fellowship in person.



1973 Vikings to orbit Mars, carry landers to seek life

NASA has selected the areas of investigation and investigators for the Viking 1973 mission to Mars.

Viking will consist of two instrumental spacecraft which will for the Viking 1973 mission to be placed in orbit around Mars with each spacecraft detaching a landing capsule for descent to the surface and soft landing. Mission

GE's Cook speaks at SAMPE meet

Meyer Cook of General Electric Wednesday will speak to the Society of Aerospace Material and Process Engineers. Cook will speak on the Interagency Data Exchange Program and will screen a film on the use of the system for efficient data retrieval.

The meeting will be at the King's Inn with a social hour at 6 pm, followed by dinner and Cook's talk. Reservations may be made through Darrel Cox at 488-0910 or Steve Jacobs at 483-4564. Non-SAMPE members are welcome.

objectives include the detection of life on the planet if it exists.

Viking is a follow-on to the 1964-5, 1969 and the 1971 Mariner flights to Mars. The first two Mars missions, in 1965 and 1969, flybys of the planet, sent back pictures and information on the Martian atmosphere. The two 1971 Mariner spacecraft will be placed in orbit around the planet to transmit photos of the entire surface and help locate the best landing spots for Viking.

Langley Research Center, Hampton, Va. is charged with overall project management for Viking and responsibility for the lander portion of the spacecraft.

Belated Xmas Song

On the Twelfth Day of Christmas my true love gave to me:

- 12 spacecraft flying
- 11 downlinks dumping
- 10 computers running
- 9 cards a punching
- 8 tapes a playing
- 7 printers printing
- 6 plotters plotting
- 5 mirco-films
- 4 o'grams
- 3 bilevels
- 2 bandpass tabs

and a stripchart in a pear tree.

J. L. Gibbons PT3

EAA plots 1970 athletics sked

The MSC Employee Activities Association has outlined a 1970 schedule of athletic activities.

Men's volleyball will run from late February through April, while Women's volleyball will run during April and May.

From May through August, men's softball will be scheduled, with the flag football leagues picking up in September and running through November. Men's basketball will run from November through February 1971.

Federal employees and assigned military are eligible to take part in all activities. Additionally, contractor employees are eligible to participate in softball and women's volleyball is open to wives of all type employees.

The EAA Beacon and the Roundup will carry notices of leagues forming up. Additional details may be got from EAA vice president - athletics Dennis Doherty at 2741.



Space-age windmill is really OAO-II. The satellite is 10' tall and 21' wide with its solar arrays deployed. Weighing 4,400 pounds, it is the most complex unmanned satellite ever orbited.

OAO-II called greatest thing since the telescope invented

Astronomers are contemplating the possibility that the universe may be several times larger than previously believed, as the result of observations from the United States space program's first large space observatory. The Orbiting Astronomical Observatory II (OAO-II) was launched by NASA a little over one year ago, and orbits the Earth well beyond the obscuring effects of the atmosphere.

In studying the ultraviolet radiation from stars and galaxies, OAO-II discovered that many galaxies are much brighter in ultraviolet radiation than astronomers had expected. This means that some of the very distant galaxies are intrinsically extremely bright objects. Since they appear so faint they must be very far away, perhaps several times farther than was previously assumed.

The satellite has confirmed that hot stars lose as much as the Sun's total mass in the relatively short astronomical period of a single year. The hottest stars are also somewhat hotter than had been inferred from ground-based observations. Similarly, some slightly cooler stars are cooler than had been assumed. This may have important implications for the theory of stellar aging and energy production.

Many models of the universe assume a considerable amount of unobserved matter. The OAO-II results indicate that, if this extra mass exists, it does not radiate in the ultraviolet. A consequence of this observation may be that the universe is not a closed system as predicted by Einstein's theory of general relativity.

OAO-II's performance during its first year in orbit is excep-

tional. Before OAO-II was launched, it took 15 years and about 40 sounding rocket flights to obtain approximately three hours of ultraviolet data from some 150 stars.

By comparison, the sky-mapping instrument package aboard OAO-II had taken pictures containing data for more than 17,000 stars in each of three spectral ranges, after 169 days of operation.

In its detailed observations of individual stars and other objects, the University of Wisconsin experiment studied 568 specific objects during 1,995 observations in 165 days of operation.

These achievements had prompted some astronomers to rank the orbiting of OAO-II with the invention of the telescope in its importance to astronomy.

Prize Winning Suggestions



Kenneth Willett was awarded a \$750 check recently for a suggestion he made to change the method for weighing spacecraft wire harness. Mr. Willett is part of the R.&Q.A. office at MSC-Downey.

Something new for the "Roundup"

A new column will be appearing soon in the Roundup. A question-and-answer column.

All submissions from NASA employees will be considered for publication and referred to the appropriate authority, the answers to appear in the Roundup at the earliest opportunity.

Send questions to the Roundup, AP-3, along with your name and mail code.

Suggestions as to a name for the column would be appreciated, too.

Roundup Swap-Shop

(Deadline for Swap-Shop classified ad is the Thursday 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.)

PETS

Two toy poodles, one male & one female, 5 weeks old, 591-3485
Free brown puppy, female, 10 weeks old, will grow to 30-lb., Cooper, 944-9026

AUTOS

68 Corvett Coupe, 4-speed, air, power steering, positraction, low mileage, one owner, Samonski, 877-4795
66 Buick Wildcat, 4-dr hdt, loaded, 45,000 actual miles, \$1650, 479-4809 after 6 pm.
61 Corvair, 4-door sedan, automatic, good condition, original owner, \$180, Lapko, 946-4311
64 Fairlane Station wagon, 39,000 miles, V-8, air, automatic, excellent condition, \$900, Wilson, 591-2217
65 Mustang, V-8, automatic, console, power steering, air, radio, extra nice, 488-2897
63 Karmann Ghia convertible, excellent condition, \$650, 488-3171 or x 3578, Cohen
59 Triumph TR-3, excellent engine, good tires, no rust, needs body work, \$275, Lockridge, 591-2628
68 Buick Special, automatic, air, 17,000 miles, \$2250, 944-5327 after 5:00 pm.
67 Mustang fastback, 390, 4-speed, air, extras, \$1500, Rainey, 474-2937 after 5
64 Oldsmobile, F-85 delux wagon, air, power, luggage rack, excellent tires, \$800, Rainey, 474-2937 after 5.
62 Chevy 6 cyl., standard trans., \$60, HUB-4846 or 932-3753 after 5 pm.
69 74 FLH Harley-Davidson, fully dressed, 950 miles, need money, Suggs, 644-4631 after 5.
66 Chevelle SS, 396, bucket seats, 4 speed, power, \$1450, 932-5983
65 Mustang, red, V-8, needs mechanical work, very reasonably priced, x4588, C. Kraft Robertson
63 Chevy Impala, 4-dr. hdt, factory air, excellent shape, \$800, x4616, Williams, or 488-2713 after 5:30.
57 Ford Fairlane 500, needs work, best offer, HUB-4412, Teixeira

61 Corvair, 4-dr sedan, automatic, good condition, low mileage, original owner, \$150, Lapko, 946-4311

WANTED

Black kitten, prefer female, full or part persian, Brenton, 488-4372
Couple, live-in, furnished 2-bdrm. apt., rent, utilities, & salary paid. Near Ellington/NASA. 946-9958, Paige, or Amann, X5303
Yoga students NASA area, start January 8, exercise for mind and body, expert instruction, Johnson, 591-3541
Weimeraner gyp, litter registered, average conformation, 944-5414, Harrison
Woman's and/or man's used 24 or 26" bicycle, fair or good condition, x4451, Davidson
Misc. tools, jigsaw, vise; 591-4163, von Ehrenfried

REAL ESTATE

Lease 3-2-2, built-ins, large corner lot in Dickinson, Alford, 932-2857
3-2-2 Nassau Bay colonial, fenced, corner, formal living & dining, paneled den, fireplace, custom draped, carpeted, 5 1/4%, 591-2340
3-2-2-dn, League City, brick, central A/H, built-ins, carpet, 12x20 patio, assume 6% loan, \$134/mo. Ferrell, x5026 or 932-2754.
Wooded lot, Oak Ridge North, 15-20 minutes to Intercontinental, 90x150, \$4400, Newman, 474-3497.

MISCELLANEOUS

Mamiya/Sekor 528 TL, SLR camera, f2.8 lens, 1/15-1/500 sec. shutter, manual or auto operation, Miller, 932-5973
Westinghouse upright vacuum, excellent condition, Alford, 932-2857
Technicolor movie club membership, Super-8 camera, projector, film, screen, etc., new, make offer, 645-1001.
Car top carrier used once, adjusts to fit all cars, \$15, Stanton, 932-2982
GE portable dishwasher, deluxe model, excellent condition, \$125, Crippen, 471-2739.

5-qt Sunbeam automatic cooker & deep fryer, \$4; G. E. toaster, \$9, Sunbeam Waffle baker & grill, \$5; baby walker, \$2.75, travel & car bed, \$10; 534-3890, Bass.

Super 8 movie projector, Sekonic 260-5, brand new, zoom lens, automatic threading, variable projection speed, still & reverse, built-in pilot light, \$75, Rosenbaum, 473-6901 or x 4776

Wurlitzer organ, including many swinging \$500, Kennedy, 944-0590 after 6 pm.

Hair dryer, commercial type with pedestal, like new, \$25, Kennedy, 944-0590 after 6.

Thorens 4-speed stereo turntable; Shure M7D cartridge, automatic c/o Base, \$50, Engel, 482-7830

Frigette auto air conditioner, good condition, will sell for \$75, Stockholm, x 4846 or 932-3753 after 5pm.

Will fly you anywhere at actual costs. Choose Cessnas, Comanche, Bonanza, 591-4163, M. von Ehrenfried

Durst 606 enlarger, 35mm to 2 1/4 x 2 1/4, with variable negative mask, filters, copy head, excellent, \$50, x5455, McCreary, 946-5285

Black tuxedo, size 42 coat, 37" waist trousers, \$30, x4616, Williams, or 488-2713 after 5:30.

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

Human hair fall, ash brown, cost \$65, sell for \$25, like new, 932-3844

Modern walnut, 4-drawer desk, \$30; modern walnut formica top coffee table, \$10; large sturdy 7-drawer desk, black formica top, \$20; Danish modern sofa, \$75; wooden playpen, \$5, Metal bookstand, \$2.50, Wade, 649-0554

AnSCO Dual-8 motion projector, screen, 3-turret camera, excellent condition, all for \$60, x2637, Dorsey

Ludwig drums, 5-piece, seat included, excellent condition, \$300, 471-4071 after 5 pm.



Like some setting for a duMaurier novel, the old West mansion lurks behind Spanish-moss draped trees just outside the east boundary of MSC. After lying vacant for 15 years, the house got a new lease on life when it was refurbished

as the home of the Lunar Science Institute. This photo shows the glass-less windows covered with plywood before restoration began.

"Spooky old ruin" now grand mansion again

When the Lunar Science Institute opens its doors on Monday, January 5, upon the occasion of the Apollo 11 Lunar Science Conference, scientists from the U.S. and abroad will be walking into a building which will allow them to work in an atmosphere of dignity and comfort.

Renovation of the home of "Diamond Jim" West, once the residence which was the control center for the 30,000 acre ranch at Clear Lake, is now virtually complete. Some artistic touches remain — a few small ceiling stencils are incomplete — but the house is again ready for occu-

pancy, after some 15 years of disuse.

During the years when it was abandoned, only hobos and vandals occupied the mansion. They managed to destroy every pane of glass, break every chandelier, and gouge the unique tile which decorated the baths.

Fortunately, the men and women who tackled the job of restoration were both skilled and determined — determined to salvage as much of the grandeur of the old place as possible.

S. V. Percy, the architect who supervised the restoration through the design and construc-

tion stages, commented that even when changes had to be made, the design integrity of the old place was considered. For example, the original house was built without air conditioning. When the problem of exposed air conditioning ducts arose, Percy came up with a most successful solution: match the mahogany paneling and extend it to the upper level balustrade. The ducts are disguised; the extension carries the eye upward; the balustrade unites the whole.

Some 30' overhead, the mahogany ceiling in the main hall retains its original artwork, only slightly retouched.

Major alterations occurred in only a few rooms. The solarium, originally done in "1930 Hollywood", to use the architect's words, with green marble floors, black-and-white plaster embellished fireplace, marble benches, and indoor fountain, has been transformed into a sunny meeting room. The speakers' rostrum has replaced the fountain, and upholstered chairs serve instead of marble.

The elder West's own bathroom was sacrificed as well. The 15' octagonal room has been made into an office. The marble masseur's table, the steam cabinet, the commode set upon a pedestal, the shower with eight nozzles along the sides, one nozzle overhead, the 12" gold-on-black tile squares with roaring lions heads—all are gone now.

Elsewhere, however, the baths have been restored, including one bath with blue tile from Tunisia.

The sleeping porch, necessary during air-condition-less summers, will become a map room. Bedrooms will be offices.

The house was so well-built that virtually no "gutting" was

necessary. The downstairs floors, all mahogany, needed only cleaning and refinishing. The heavy doors and woodwork are of such high quality that they too needed only refinishing. Mr. West's reading room has been retained as a reference room, although his "secret bookshelf", concealed behind one row of books, is gone now.

The more extravagant details of the house have been made functional. For example, the Wests maintained a 20x30' kitchen of restaurant quality in spite of the fact that only three of their family ever lived in the house. This kitchen has been converted into workspace. A small kitchenette is now the only cooking facility. The 10x12' walk-in meat locker and the rest of the 4-bedroom servants' quarters now house the air-conditioning and

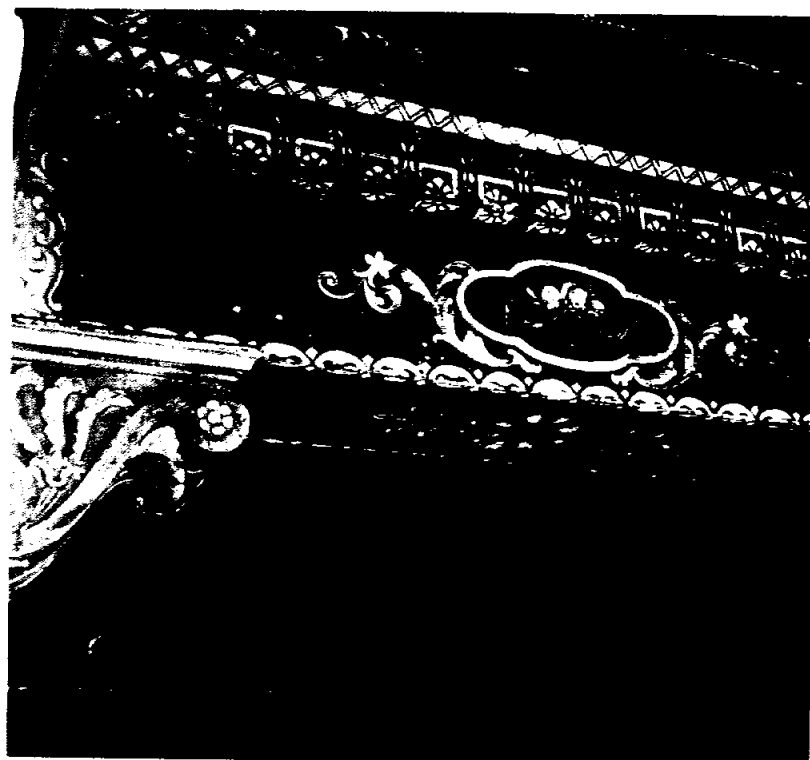
heating facilities for the main building, while the exterior of the quarters has re-acquired its original face. Restoration of the filigree stenciling on the underside of the roof overhang has not been attempted.

Neither the sunken gardens, the swimming pool, tennis courts, fish pond, outdoor fountain, gazebo, nor ranch manager's home have been touched. Perhaps an ambitious garden club will tackle the job of restoring the grounds to their once well-kept state.

In all, the mansion is far from opulent. It is, however, dignified, comfortable, and impressive. It has a "tone" about it which will contribute to the discussions and research which will be carried on there. And it is a triumph for a now grand, once "spooky" old mansion.



An arched hallway with sagging and peeling plaster gives a hint of the former grandeur of the mansion, which for the most part, was designed in "1930 Hollywood."



Someone must have lain on his back for almost as long as Michelangelo did in painting the Sistine Chapel to decorate these mahogany-paneled beams in the main hall.