



UNITED FUND BENEFICIARY — Homeless and insecure children in Houston and Harris County can find refuge in such United Fund agencies as the DePelchin Faith Home and the Convent of the Good Shepherd. The DePelchin Faith Home was one of several UF facilities toured last month by 23 MSC United Fund team captains.

Lucky Numbers Listed For Five Picnic Prizes

In case you're among that 10 percent that traditionally never gets the word, the fifth annual EAA-sponsored MSC Picnic will be held tomorrow at Galveston County Park in League City starting at 10 am.

Tickets are on sale through noon today in both cafeterias and may be bought from picnic ticket representatives in each building. Prices are \$1.50 for adults, \$1 for children 6-11, and \$.50 for children 5 and under.

Ticket prices include a barbecue plate with all trimmings and a choice of beverages, plus a variety of games, contests and entertainment happenings emceed by a surprise ringmaster. Food will be served from 11 am to 3 pm.

LTV to Provide Center Services

The LTV Range Systems Division, Dallas, has been selected by NASA to provide facilities support services to MSC.

LTV was one of two firms selected in July for competitive negotiations. Value of the one-year cost-plus-award-fee contract is approximately 10 million dollars. The contract, effective December 1, contains provisions for four one-year renewal options.

Services to be provided in the contract includes building and grounds maintenance, operations and maintenance of equipment, and associated engineering work related to the Center's plant facilities.

Florida Aircraft Crash Kills MSC-Bound C. C. Williams

Graveside services Monday were held for MSC pilot Clifton C. Williams, Jr. in Arlington National Cemetery. Williams died in a T-38 crash near Tallahassee, Fla., October 5 on a flight from Cape Kennedy to Houston.

AIAA Talks Run Gamut

Who says oil and water won't mix?

The American Institute of Aeronautics and Astronautics mixed oil with water, and even added beer.

The concoction is actually the agenda for the Houston Section, AIAA, covering an entire year.

It began Monday when a vice president from Shell Development Corporation spoke to the membership about petroleum production (oil).

Next June, the membership will hear a speaker on oceanography (water).

And in February, the Section will tour the Budweiser brewery in Houston (beer).

Other speakers will discuss supersonic and jumbo aircraft (aeronautics), lasers and lunar laboratories (astronautics).

Membership information may be obtained from Aleck Bond, Section Chairman. Bond is Manager of Systems Test and Evaluation, Engineering and Development Directorate.

Pallbearers were Eugene Cernan, Richard Gordon, Alan Bean, Charles Conrad, Michael Collins and Jack Lousma. Rev. Eugene Cargill, assistant pastor of the Shrine of the True Cross Catholic Church, Dickinson, officiated at the burial. Father Cargill said a requiem mass for Williams in Dickinson Saturday.

Williams, a Marine major, was flying alone in one of 23 T-38s used by MSC spaceflight pilots. He had left Patrick AFB, Fla., about 1 pm bound for Ellington AFB with a fuel stop at Brookley AFB, Mobile, Ala. The crash occurred about 1:30 pm EDT west of Tallahassee.

Appointed to the accident Board of Inquiry were Alan B. Shepard, chairman; Joseph Engle, H. E. Ream, MSC Aircraft Operations Office; James Powell, MSC Safety Office; Ralph E. Keyes, MSC Flight Crew Operations; and Dr. John F. Zieglschmid, MSC Medical Operations. MSC pilot Gerald Carr, a Marine Corps major, was appointed summary court officer to assist Williams' family.

Williams was one of the third group of 14 spaceflight pilots assigned to MSC in October 1963, and had served as backup pilot for the Gemini X mission. His technical assignment at the time of his death was in Lunar Module hardware development.

He is survived by his wife, the former Jane E. Lansche, daughter Catherine Ann, nine months, and his parents Mr. and Mrs. Clifton C. Williams, Mobile, Ala.



Blood Bank Sets October Drive

The MSC Blood Bank has scheduled visits of the Blood Services of Houston bloodmobile to MSC and contractor firm locations during October.

Now entering its second year of operation the MSC Blood Deposit Program serves participating employees and their families. But the committee reminds those employees that deposited a pint of blood at the program's inception that to remain eligible for participation, they must again deposit a pint. Participating membership expires one year from the last deposit.

Since the last drive in July, 17 persons have received 99 pints of blood. Moreover, the committee recently pledged 50 pints of blood to an employee as his illness requires. When the 50 pints are used, the committee will consider allocating more, provided there is a surplus in the bank.

All blood collected above 100 pints in the October drive will be divided evenly between the Shrine Burn Institute and the American Heart Association.

Bloodmobile hours will be 8:30 am to 1 pm at all locations except General Electric where hours will be 9 am to 3 pm.

Dates and locations are as follows:

October 16-MSD Bldg 8; October 17-GE Bldg 1; October 18-MSD Bldg 8; October 19-Ellington AFB Bldg 276 (north side); October 20-MSD Bldg 8; October 23 and 24—Lockheed, Alpha and Gemini Bldg.

Contacts for making bloodmobile appointments are as follows: MSC—Ed Stelly 3378; B&R—N—Bill Averyt HU 8-2500; NAA—Jim Hallmark HU 8-2720; GE—Ed McCabe 932-4511 Ext 2133; Lockheed—Jerry Holder HU 8-0080; Dynalectron—Al Schneider Ext 7630; Boeing—Sara Weyer 591-5285; AT&T—Larry Salyers HU 8-1010.

Chamber Queen



EARTH MODULE—A Lunar Module that will never fly in space, LTA-8, sits shrouded in plastic wrappings on the floor of the Space Environment Simulation Laboratory where later this year it will undergo thermo-vacuum manned testing in SESL's 35-foot diameter Chamber B. LTA-8 is configured similar to the Lunar Module which will be flown unmanned in earth orbit in the LM-1/AS-204 mission—Apollo V. The test LM arrived from Grumman-Bethpage September 24 aboard a Super Pregnant Guppy aircraft. Houston Grumman manager Jack Buxton and LTA-8 Vehicle Manager Phil Stump are shown reviewing spacecraft paperwork.



OFFICE AIDES—Dawn Hoyle of Personnel Recruiting and Staffing assists participants prepare their paperwork for MSC's Vocational Office Education and the President's Youth Opportunity Back-to-School programs. At MSC, 23 persons were appointed under the VOE program and six under the Back-to-School drive.

EARN GRADUATION CREDITS—

Two On-Job Training Programs Begun for 29 MSC Participants

By Silvie Gaventa

MSC launched its 1967-68 Vocational Office Education Program September 18 when 23 persons were appointed under the Vocational Office Education Program, and six under the President's Youth Opportunity Back-to-School Drive.

Vocational Office Education (VOE) is designed for senior students in business education whose curriculum combines on-the-job training with occupationally related classroom instruction. Students attend school each morning, spending one hour a day in the VOE laboratory where they receive individualized training in office practices, with emphasis on those skills needed in their particular office assignments.

They are enrolled in two or three additional classes, depending upon graduation requirements. Afternoons are spent in an approved training station—MSC—and for this on-the-job training students earn one credit.

The President's Youth Opportunity Back-to-School Drive provides up to 16 hours' employment per week for students who require financial assistance to remain in school.

All of the students who reported September 18 are enrolled in their school's Vocational Office Education Program. Here at the MSC they are designated "Office Aides," and are assigned clerical duties in various organizations throughout the Center.

MSC participated in the VOE program for the first time last spring, and this is our second year with the Youth Opportunity Back-to-School Drive. Participants in both programs have proved quite capable, and MSC supervisors have been pleased with the results of the programs. An objective of MSC's participation in these programs is that

participants will be able to take and pass the Civil Service Commission's examination, thus making them available for permanent Federal employment.

The two schools represented are Worthing and Milby Senior High Schools in Houston. Teacher-coordinators Jean Gaines of Worthing and Kathy Vavrecka of Milby will be visiting the Center periodically to observe students at work, and to confer with supervisors. Silvie Gaventa of the Employee Development Branch is MSC's coordinator of both the Vocational Office Education Program and the Youth Opportunity Back-to-School Drive.

Mariner Scans Venus For Signs of Radiation

Solar radiation and magnetic properties around Venus as well as in interplanetary space will be studied closely as the spacecraft Mariner V advances closer to the planet.

Mariner V carries special instruments to measure radiation and magnetism. One device could detect the presence of a Van Allen-type radiation belt, such as that which girdles the Earth. Mariner V was launched last June 14 in a program directed by the Jet Propulsion Laboratory (JPL), Pasadena, Calif.

Due to fly within 2,500 miles of the surface of Venus Thursday, Mariner V could help NASA acquire valuable information to supplement that learned from Mariner II in 1962. That probe detected no radiation belts and no magnetic field at a miss distance of 21,600 miles.

Dr. James A. Van Allen, University of Iowa, discoverer of a radiation belt around the Earth, heads the scientific team which built a trapped-radiation detector to observe particles of various energies in the belts around Venus. The instrument is also designed to provide general data on energetic particle emissions from the Sun.

A helium magnetometer will measure the strength and direction of the magnetic fields near Venus and in interplanetary space. This study will be made by a group led by Dr. Edward J. Smith of JPL. Dr. Smith and his colleagues expect to observe such changes near Venus because of the flow of the solar wind around the planet.

The properties of the solar wind itself will be investigated throughout the Mariner V flight by another team under Prof. Herbert S. Bridge of Massachusetts Institute of Technology. The solar wind, an outward flow of ionized gas or "plasma" from the Sun, was first investigated extensively by Mariner II. Its velocity is normally between 200 and 500 miles-per-second and its density is extremely low. Mariner V will pass through the so-called "solar plasma cavity" on the dark side of Venus. Because of the close approach, the results of the plasma experiment may show scientists a correlation with the magnetic field studies.

Plasma shock waves in interplanetary space also may be detected. If Mariner IV (the Mars probe of 1964) remains alert, Dr. Conway W. Snyder, Mariner V project scientist at JPL, intends to use that probe and the Venus-bound Mariner to measure the transit time of shock waves in the solar plasma as they travel from one spacecraft to the other.

Still a different family of electrically charged particles in space and near Venus will be studied in another experiment seeking to count electrons met by a radio beam passing through the atmosphere of the planet. This will be done by comparing the differences in two radio waves sent to the spacecraft by Stanford University experimenters headed by Prof. V. R. Eshleman at Palo Alto, Calif.

After Mariner V passes Venus, its trajectory will carry it within 54 million miles of the Sun next January 4. Investigators hope to get important data from this unexplored region before the spacecraft's solar cells deteriorate from the Sun's intense heat.

NASA scientists believe the findings of Mariner V could contribute helpful information on the planet to compare with that of Earth. They say it will also throw light on the chances of finding life on Venus via robot landers; and whether a manned spacecraft should be sent to Venus in the distant future.

Manning the Chairs



COMMITTEE HEADS—The Space City-Houston Chapter of the National Contract Management Association recently named committee chairman for the coming chapter year. Left to right are: David T. Riley, MSC-Constitution and By-Laws Committee; D. E. Matlock, Philco-Admissions and Membership Committee; Jack Fuller, MSC-Education Committee; Dave W. Lang, MSC-Nominations and Elections Committee; Francis F. Davis, MSC-Finance Committee, and Michael A. Ballas, MSC-Publicity and Public Relations Committee. Not in photo: A. E. Hyatt, MSC-History Committee.

Spanish Club Starts Plans for Cabrito Cookout

The MSC Spanish Club is planning a cabrito cook-out party in the near future. MSC and contractor employees interested in joining the Club are invited to Monday's meeting in Room 108 Bldg 13 at 5:15 pm. *Todos son bienvenidos.*

Steve Gilbreath of Personnel Division and formerly with the Peace Corps was guest speaker at the October 2 Club meeting. Gilbreath presented a slide-illustrated tour of Ecuador and Peru, including the "Lost City of the Incas," Machu Picchu.

Cancer Movie To be Re-shown To MSC Women

The American Cancer Society film "Self-Examination of the Breasts," October 24 again will be shown for the benefit of MSC and contractor female employees. Showing will be from 10 to 10:45 am in the Bldg 1 Auditorium.

One of several means used by the American Cancer Society for educating the public, the film is one all women should see. Supervisors are urged to promote attendance at the film showing to help in maintaining employee health and reassurance.

AAS Elects New Officers

The Houston Chapter of the American Astronautical Society has elected officers for the coming chapter year.

Elected chairman was Warren Gillespie, Special Assistant to the MSC Director for Engineering and Development. Joseph L. Nado of Advanced Spacecraft Technology Division was elected vice chairman.

Dr. Paul Penzo, senior scientist with the TRW Systems Mission Analysis Laboratory, was named secretary and Allen B. Thompson of GE Apollo Support was elected treasurer.

New chapter directors are E. L. "Ted" Hays, deputy chief MSC Crew Systems Division; John M. Eggleston, deputy chief Lunar and Earth Sciences Division, and George Xenakis, Guidance and Control Division Advanced Studies director.

Bridge Standings

The MSC Duplicate Bridge Club September winners are: September 5—J. Lee and Elise Lee, first; J. Oldfield and A. Bragg, second. September 12, Women's Pairs: E. Brown and B. Fagan, first; E. Reid and A. Gawdy, second. Mens' Pairs: (winner to be determined later) C. Castle and J. Sulester, B. DeGeorge and B. Durbin. September 19: J. Lee and B. Durbin, first; J. Rainey and H. Fagan, second.

An eleven-table Mitchell Movement was held by the club September 26. Winners were: North-South first—J. Herrman and R. Clemence; second—B. Durbin and J. Leighton. East-west first—J. Oldfield and A. Bragg; second—M. Carson and P. King.

Winners of the seven-and-a-half table October 3 Mitchell Movement were: North-south first—J. Oldfield and A. Bragg; second—R. Wiley and J. Snyder. East-west tied for first—J. Herrmann and R. Clemence, J. Wolfe and B. E. Leighton.

A two-session open pairs championship is scheduled for October 10 and 17.

A pay telephone has been installed in the club building for members' convenience.

Lunarfins Offer Scuba Classes

The MSC Lunarfins skin and Scuba diving club is offering a Scuba training course two nights a week starting October 9. Monday night classes will be held at the Tropicana Swim Club, 5920 Telephone Road, from 7 to 10, and on Thursday nights at Bldg 336 Ellington AFB from 7 to 10.

The course includes Lunarfins membership, diving manual, certification fee and pool fee—all for \$28. The course runs through November 9, and will be taught by instructors certified by the Underwater Society of America.

To register, call Jim Peacock at 2954 or Bill Moran at 2831. Lunarfins has available only 13 sets of tanks and regulators for free club use on a first come-first served basis.

Serving the second year of two-year director terms are Paige Burbank, assistant chief Space Physics Division, and aerospace consultant Dean Horning.

Working Group Formed to Plan Safety Panel

NASA has appointed an interim working group composed of Dr. Alfred J. Eggers, Dr. Floyd L. Thompson and Gen. Jacob E. Smart to review NASA safety procedures and prepare a plan under which the Administrator can proceed to establish an Aerospace Safety Advisory Panel.

Gen. Mark Bradley, Garrett Corp., will serve as a consultant to the chairman, Dr. Eggers. The action is taken to implement Section 6 of Public Law 90-67 (the NASA Authorization Act for Fiscal Year 1968).

Eggers is Special Assistant to the Administrator and Deputy Associate Administrator for Advanced Research and Technology. Thompson, Director of NASA's Langley Research Center, Hampton, Va., served as chairman of the Apollo 204 Accident Review Board. Gen. Smart is NASA's Assistant Administrator for Policy.

Golfers Have Two Tourneys Left This Year

The MSC Golf Association September 16 completed its tenth monthly medal play tournament at Brock Park. High scores were typical of all flights and a few exceptionally good rounds were carded.

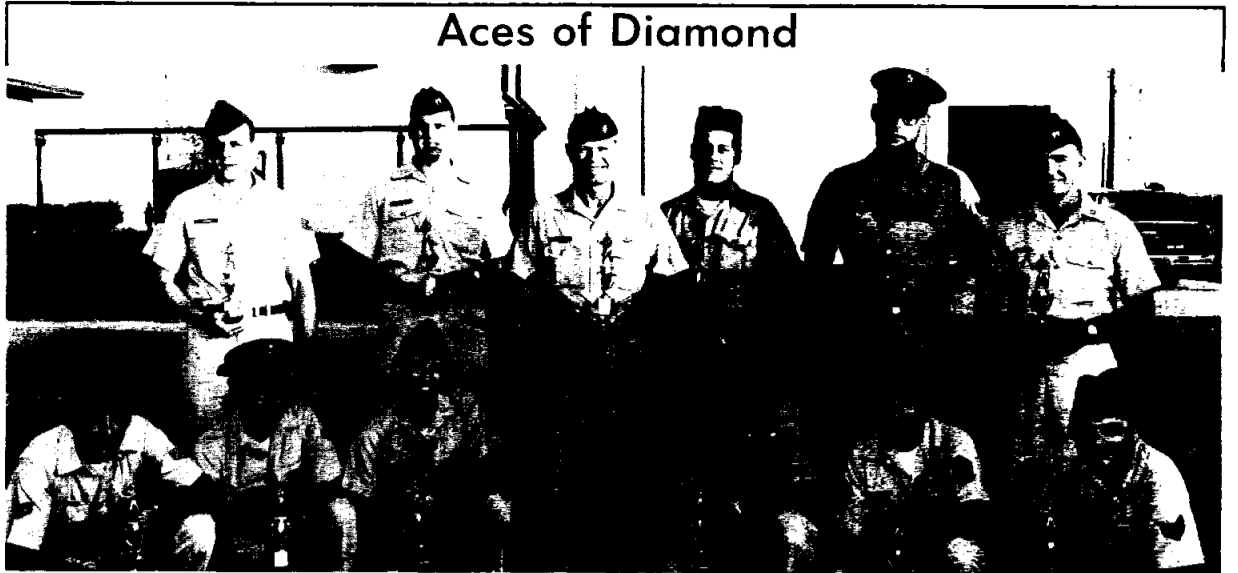
With two tournaments remaining in the 1967 season, here are the standings of the first five in each flight:

Championship: Max Engert 217, Dana Boatman 214, Tim White 144, Mitch Secundo 132 and Ray Holloday 131. First Flight: Norm Cooper 200, Loran Remmich 192, Bob Kosinski 167, Bob Reaves 149 and Sam Glorisco 128.

Second flight: John Jones 174, John McWhorter 151, Lou Leopold 143, Ed Cowley 132 and C. R. Davis 119. Third flight: Jim Neal 143, John Conlon 135, Carey Lively 113, Sparky Sparkman 110 and Charles Levy 109.

MSCGA will soon begin planning its 1968 season, but Association officers point out that if the group is to continue as a competitive golf association, members will have to take active parts in running the league. For example, someone is needed to manage monthly handicapping and a treasurer is needed.

MSCGA members interested in serving on the 1968 executive committee are asked to call Norm Beauregard at 5431. Suggestions for Association improvement should be sent to J. E. Jone/BG621.



FAST-PITCH CHAMPS—Winner of the MSC/EAFB Fast-Pitch Softball League was the 747th Aircraft Control and Warning Squadron team. Kneeling, left to right: Sgt. Pete Johnston, ATc Jose Fagan-Saez, Lt. Vince Barbera, A2c Cesario Bresino, Sgt. Ed Lane and Sgt. Coco Hartman. Standing: Sgt. Ronnie Logsdon, Capt. Phil Duncan, LtCol Frank Davis, Sgt. Herman Oltman, Sgt. Harold Lawson and Capt. Bill Snow.



FAST-PITCH RUNNERS-UP—The Lone Stars were tied for first place with the 747th ACW Sqdn at the end of regular league play, but lost the league playoff game 6-4. First row, left to right: Doug Lilly, Ken Westerfeld, Jeri Brown and Walter West. Second row: Manager Larry Ratcliff, Gid Weber, Merle Schwartz, Bill Whatley and Bill Renegar. Not in photo: Tom Gibson, Bob Brown, Paul Liebhardt, Bob Ward, Dick Reid, Sam Ackney and Tommy Keeton.



SLOW-PITCH CHAMPS—Galveston Bay Packers nailed down first place in the slow-pitch league playoff. Front row: Jack Boykin, manager Jim Parker, General Manager Art Booth, Nat Hardee, Jim Meyer, Bill Whipkey and Jim Osburn. Back row: Reed Lindsey, Bob Richmond, Dennis Doherty, Jim LeBlanc, Jim Derbonne, Clyde Evans and L. O. Corcoran. Not in photo: Asst. Manager Jim Axley.



SLOW-PITCH RUNNERS-UP—The Mission Analysis Branch "Animals" were slow-pitch league runners-up and American Division champs. Kneeling: Oneil McCaffety, Al Morrey, Richard Wadle and Daryl Lostak. Back row: John Richardson, Rocky Duncan, Gene Ricks, Ivan Johnson, Ed Svrcek, James Larey and Richard Kruse. Not in photo: Manager Bernie Morrey.



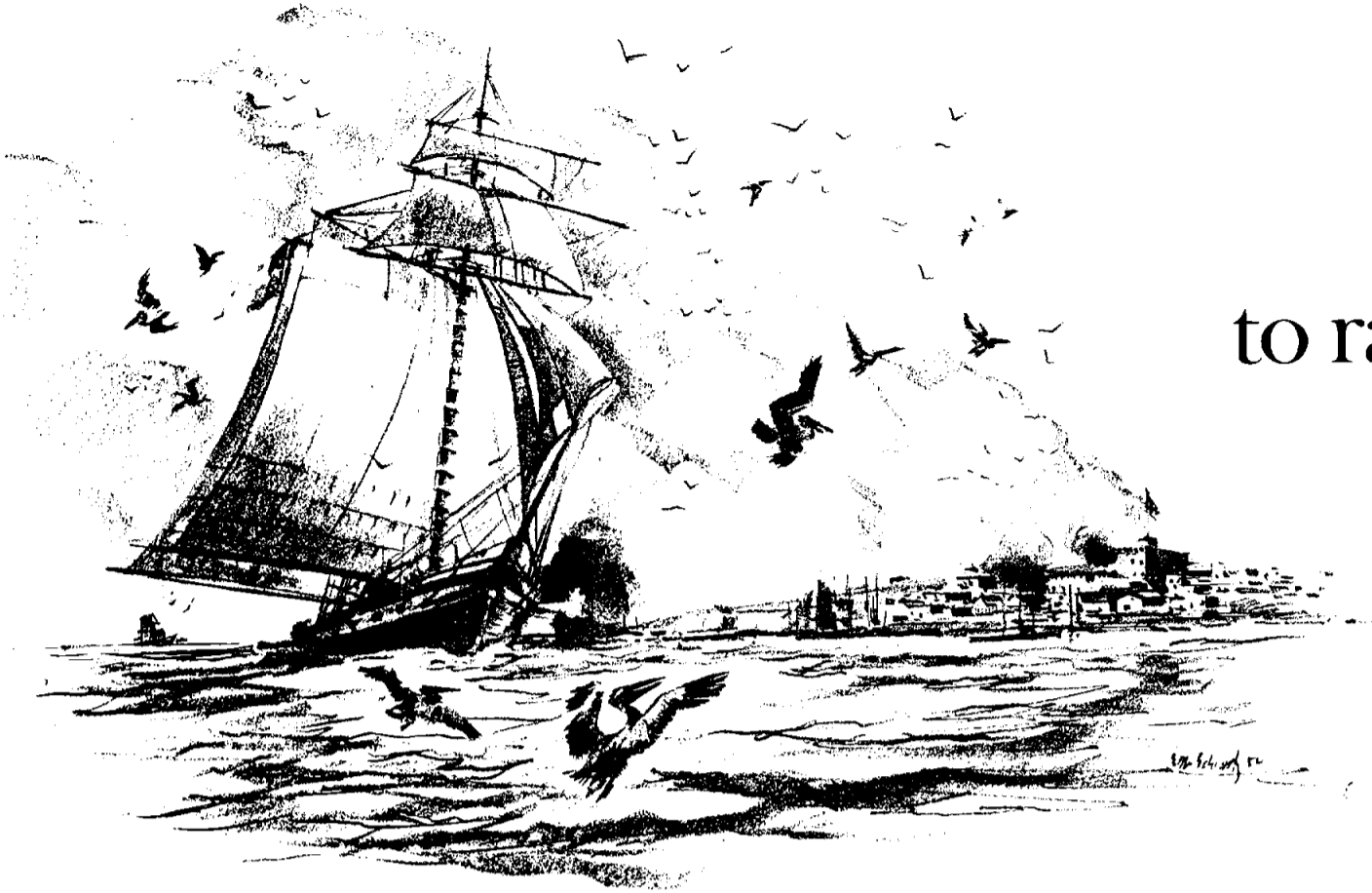
SLOW-PITCH NATIONAL DIVISION CHAMPS—The Technical Services Division team placed first in the Slow-Pitch Softball League National Division. Front row: Boyce Sterling, Ray Ramirez, Jimmy Lee and Danny Welsh. Back row: Paul Folwell, Bill Ball, Paul Moravek, Frank McCrimmon, Joe Barbour and Manager Joe Elliott. Not in photo: Gary Lauhon, Jesse Adkins, William Cowart, Leroy Mullaley, Joe Moravek and Gordon Boatright.

Sam Houston's San Jacinto victory

owed much

to ragtag Texas Navy

The Texas Navy: Part I



BATTLES and blockades of the Texas Navy during the revolution against Mexico are shrouded, and almost lost, in the mists of more than a century since San Jacinto. Mountains of manuscripts and books by the score tell stories of land campaigns. But one has to scratch deep among archives and libraries to find stirring sea tales of the small, but highly effective, Texas Navy.

As a result, every Texan proud of his state's history knows about the Alamo and San Jacinto; about Travis and Bowie and Sam Houston. But ask him about the *Independence* or Commodore Hawkins, and you are likely to draw a blank stare.

Those who know the full story of the Texas Navy declare, to a man, that it contributed largely to final victory on the battlefield of San Jacinto. Brigs and schooners, flying the Lone Star and manned for the most part by rag-taggle crews, mercilessly harried the Mexican coast. Tiny wasps with fearsome stings, they delighted in disrupting Santa Anna's shipping and playing havoc with his efforts to reinforce and supply his troops in Texas.

Thanks to the Texas Navy, flour and gunpowder bound for the enemy often found its way, through capture at sea, into the stomachs and muskets of Hous-

ton's beleaguered Texans. Armed reinforcements by the thousands languished in Mexican ports for want of water transport, as Texas warships prowled the Gulf outside.

Letters of Marque

Actually, there was not one Texas Navy, but two. But before either came officially into being, ships sailed for Texas under Letters of Marque and Reprisal. It was, to be quite blunt, a sort of legalized piracy. Though Texas in 1835 was still subject to Mexican rule, the Provisional Government issued Letters of Marque and Reprisal to owners of sailing vessels, permitting them to blockade Mexican ports and prey on shipping bound to or from the enemy. Under the agreement, the Texan government received a share, usually about one fifth, of any prizes taken. Ships and their commanders so commissioned were called *privateers*.

One of the first privateers was the *William Robbins* (later to become the *Liberty* of the first Texas Navy). After receiving a Letter of Marque on December 5, 1835, the skipper of the *William Robbins* proceeded at once, under rather unusual circumstances, to capture a sort of double prize.

The American schooner *Hannah Elizabeth*, carrying two cannon and munitions for the Texan

army, had been captured near Pass Cavallo (Matagorda Bay) by the Mexican warship *Bravo*. Before the Mexicans could claim their prize, however, a stiff wind came up, forcing the *Bravo* to stand off. In this plight the Mexican prize crew was found on board the *Hannah Elizabeth* and forced to yield themselves and their erstwhile prize to the *William Robbins*.

Here was a touchy question for any admiralty court. The *Robbins'* questionable prize was a ship flying a neutral flag and laden with provisions for Texas troops! And the manner in which the cargo was disposed of muddied the waters still more. Half of it was sold on the spot to a passenger of the *Hannah Elizabeth*; the other half was advertised at auction. Before the air had cleared of claims and counter-claims, accusations and denunciations on both sides had cooled the provisional government's enthusiasm for privateering.

Before the official birth of the first navy, however, at least two other privateers made themselves heard from—the *Thomas Toby* and the *Terrible*. The *Toby* insolently shelled the Mexican fort at Tampico, then sent a blithe challenge to the commandant there to "send out for a fight any vessel which might lie in port." The arrogant little *Terrible* baited Mexican shipping up and down the coast, taking prizes where she found them and always spoiling for a fight.

The First Navy

Early in 1836, the Texas Provisional Government set out to buy itself a navy. Naval agents were dispatched to New Orleans, where they found the former U. S. Revenue Cutter *Ingham* for sale. She was renamed the *Independence*, placed in command of Charles E. Hawkins, and before mid-January appeared off the Texas coast.

It was not the first fast promotion for the swashbuckling Hawkins. Tired of waiting for advancement in the United States

Navy, he had resigned a junior officer's commission in 1826 and entered Mexican service. As commander of the *Hermon*, he distinguished himself off the Cuban coast in an engagement with a Spanish squadron. Hawkins resigned his Mexican commission in 1828, to serve later as a riverboat captain and a *filibustero*, or soldier of fortune, in Col. Mexia's Tampico expedition. He appeared reasonably well equipped, by experience and temperament, to command the new-born Texas Navy.

With the *Independence* at sea as the Texas flagship—she carried seven guns distributed over 125 tons of schooner—the agents proceeded to buy the *Brutus*, another 125-ton schooner of eight guns. After much repair work and legal difficulties designed to prevent her sailing, the *Brutus* appeared off the Texas coast in February, 1836, commanded by a seasoned captain, W. A. Hurd.

Also early in January, the former privateer *William Robbins* was added to the fleet. Renamed the *Liberty*, the tiny 60-ton schooner mounting four to six guns was bought from the Matagorda Committee of Safety, her owners during privateering days. In command was Capt. William S. Brown.

Rounding out the first four-ship navy was the *Invincible*, another 125-ton schooner, bought from McKinney & Williams. Heaviest in her ordnance of eight guns were two 18-pounders, the deadliest and longest-range weapons the little fleet had to offer. Commanding the *Invincible* was Capt. Jeremiah Brown.

A complement of 20 to 50 men sailed on the *Liberty*. The *Invincible*, fastest in the navy, carried 70 men; the *Brutus* and *Independence*, 40 each. A fifth vessel, not officially part of the navy, was the *Flash*, sailing under Capt. Luke A. Falvel and a Letter of Marque.

Flour and Gunpowder

On land, the Alamo had fallen and Sam Houston was in full retreat. At sea, Commodore Hawkins and the *Independence* patrolled the Mexican coast like an avenging angel. In the waters between Tampico and Galveston he destroyed numbers of small enemy craft, "with all material on board that could be used to the injury of Texas." Completing a cruise about mid-March, Hawkins turned back to New Orleans for refitting.

It was time for the *Liberty* to take the offensive. Early in March, finding the Mexican schooner *Pelicano* anchored in the roadstead off Sisal, Yucatan, Capt. Brown closed for action. After Capt. Perez had received a few telling shots and had his deck well raked with grapeshot, he thought it wise to strike the *Pelicano's* colors.

All went well until a Texan boarding party clambered over the rail and onto their captive's deck. At that moment, a young Mexican marine decided to make a name for himself. Leveling his musket, he was about to fire into the boarding party, but was cut down by an alert Texan's pistol. A wild melee followed, ending in the death of seven Mexicans. Others, who chose judiciously to run away and fight another day, leaped over the rail and made for shore. Poorer swimmers, perhaps men with no stomach for the shark-infested waters around, took refuge below decks.

Even at first hasty inventory, the *Pelicano* proved a fine prize. A closer inspection revealed that she was a windfall, indeed, for Houston and his army. Carefully cached inside casks of flour and other foodstuffs were smaller kegs of gunpowder! Houston was elated when he learned the news. It was stroke enough to deny Santa Anna vital food and powder; it was a double stroke to divert that material to the Texans' use.

Diplomatic howls went up at the *Pelicano's* capture and appropriation of her cargo. A false



manifest showed the cargo to be the property of an individual in New Orleans, and it was well known that this same individual sometimes cooperated with the agent for Santa Anna's source of supplies there. Under such conditions, the Texans were in no mood for diplomatic niceties.

Shortly after the *Pelicano* affair, the valiant little *Liberty* put into New Orleans for repairs. That proved her undoing. When repairs were completed, the Texan government could not afford to pay for them, and the *Liberty* found itself on the auction block. Thus, the first ship lost in the Texas Navy surrendered to financial difficulties rather than to enemy fire.

Victory of the *Invincible*

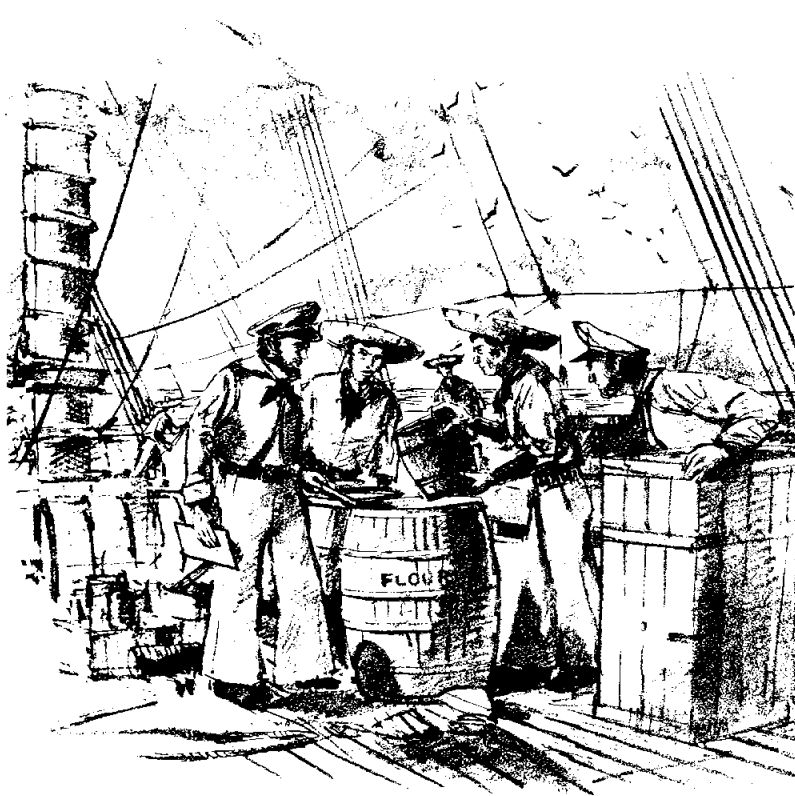
To keep his eye on enemy movements and protect the flank of Sam Houston's retreating army, Commodore Hawkins kept most of his fleet at Matagorda Bay. Part of his job was to thwart Mexican reinforcement by sea. Thus it was, late in March, that the warship *Invincible* received orders dispatching it on patrol to Matamoros, near the mouth of the Rio Grande. Hawkins could not have made a wiser assignment.

In Matamoros, at that very time, 2000 troops were being mobilized and equipped to reinforce Santa Anna's army in Texas. They would go by sea to the Texas coast. Matamoros lay under embargo, and only supply or troop vessels escorted by warships were permitted to clear port.

When Capt. Jeremiah Brown's fast little *Invincible* arrived off Matamoros during the first week in April, 1836, two Mexican ships were standing out of Matamoros and crossing the bar. One was the warship *Bravo*, Capt. Jose Maria Espino commanding. In his convoy was the *Correo Segundo*. At this point, fortune chose to favor the Texans. Crossing the bar, Espino lost his rudder and the *Bravo* lay helpless before the *Invincible*.

Capt. Brown must have subscribed to the theory that all is fair in love and war. Instead of breaking out his true colors, he ran up the Stars and Stripes, lowered a boat, and sent a party with Lt. William H. Leving in command to the stricken *Bravo*. Leving's job was to get what information he could of activity in Matamoros without revealing his true identity. Dressed as an American naval officer, and declaring the *Invincible* was an American revenue cutter from Pensacola, Leving played the game as best he could. But now fortune shifted to the other side.

Using Brown's own tactics, Capt. Espino sent a boatload of his men aboard the *Invincible*. One, unfortunately, was a young junior officer who knew and recognized some of the *Invincible's* crew the moment he stepped aboard. Knowing the play was over and reality was at hand, Capt. Brown clapped the boarding party beneath hatches and opened up with a broadside against the *Bravo*. Espino, quite naturally, countered by arresting and confining Lt. Leving (later delivered before a firing squad in Mexico) and returning the fire.



The Pelicano Prize

by E. M. Schiwetz

The battle blazed for about an hour, without great damage to either ship. It might have continued but for the appearance on the horizon of bigger game for the *Invincible's* guns, the American-owned brig *Pocket*. Pulling out of its battle with the *Bravo*, the opportunist *Invincible* made for and took the fatter prize. As it turned out, the *Pocket* carried contraband cargo and a false manifest, as usual. Actually, the *Pocket* was under contract to move Mexican troops from Matamoros to Copano Bay on the Texas coast.

Back to Matagorda hastened Capt. Brown with his valuable prize. Finding no ships there, he proceeded to Galveston, where he found great crowds wild with excitement. At Galveston aboard the *Flash* were Acting President David G. Burnet with his cabinet. All had, a few days before, narrowly missed capture by Santa Anna at Harrisburg. A major battle impended on land, and on it hinged the fate of Texas. Fleet headquarters had been moved from Matagorda to Galveston.

The *Invincible's* capture of the *Pocket* brewed a storm of controversy in New Orleans. The offended captain, Elijah Howes, hotly denounced everyone aboard the Texan warship as pirates. But Texan supporters and sympathizers in the Crescent City pointed out that the *Pocket* had asked for trouble when she carried contraband cargo white-washed by a false manifest. Arguments flew on either side and the case dragged along interminably. Finally in 1838, courting favor with the United States, the Republic of Texas agreed to pay, with interest, losses suffered by owners of the *Pocket*. A similar agreement was made to reimburse owners of the American brig *Durango*, which had fallen victim to the *Liberty*.

The Horse Marines

No account of the Texas Navy period would be quite complete without some recognition of the famous exploits of Major Burton and his "Horse Marines."

The major and a detachment of about 20 mounted rangers were on reconnaissance near Copano Bay early in June of 1836. Their job was to determine whether Mexican General Vi-

cente Filisola was retreating to Mexico, as commanded by the captured Santa Anna.

Hearing that a suspicious-looking craft had been spotted offshore, Burton and his men hid themselves in the brush and, when the merchantman appeared, signalled it to send a boat ashore. No sooner had the boat touched land than Burton's men seized it. In a matter of minutes they had boarded and taken possession of the ship, which turned out to be the *Watchman*, laden with provisions for Filisola.

While the little group of rangers pondered over what to do with its suddenly acquired prize, two other ships dropped anchor in the bay. Flushed with victory, the audacious little band decided if one prize was good, three would be better. By sheer daring, they proceeded to decoy aboard the *Watchman* the commanders of the other two vessels. These two unfortunates, to their great chagrin, found themselves imprisoned and their ships taken by small parties of Burton's men. The three ships proved lawful prize, and Burton and his boys forever afterward enjoyed the lofty title of "Horse Marines."

Loss of the *Independence*

On April 10, 1837, the flagship *Independence* sailed from New Orleans for Texas. In command was Capt. George Wheelwright, for Commodore Hawkins had died in January of that year.

Aboard was a distinguished passenger, W. H. Wharton, Texas Minister to the United States, who had just secured American recognition of his republic and was returning to accept the plaudits of his countrymen.

Early one morning a week later, off the mouth of the Brazos River, the *Independence* encountered two Mexican warships, the *Vencedor del Alamo* and the *Libertador*. These gave chase and a running cannonade ensued. At one time, the range between the *Libertador* and her quarry was reduced to a couple of cable's lengths, and some spirited fire was exchanged. Stiff winds and choppy seas kept both ships from inflicting serious damage on the other, however. The Texan craft lay low in the water, and the muzzles of her guns dipped under water as the ship rolled.

Meanwhile, the *Vencedor del Alamo* was catching up astern. Coming up with the *Independence*, the *Vencedor* presented a full broadside and received one in return, then veered off. Aboard the Texan flagship Capt. Wheelwright was wounded and carried below, leaving Lt. Taylor to fight the ship.

About noon, both Mexican warships overtook the *Independence*, squeezing her into such a hopeless position that there was little to do but surrender. It was the only Texas warship captured during the life of the Texas Navy. The *Independence* was incorporated into the Mexican Navy; Wheelwright and Wharton were carried, prisoners, to Mexico. Both escaped later and made their way back to Texas.

End of the First Navy

With the surrender of the *Independence*, the first Texas Navy was cut in half—and the end was near for the other two schooners-of-war. The *Invincible* was next to go, not a victim of enemy fire but of shipwreck almost within sight of Galveston on August 27, 1837. Only the *Brutus* remained, and she not for long. In October she fol-

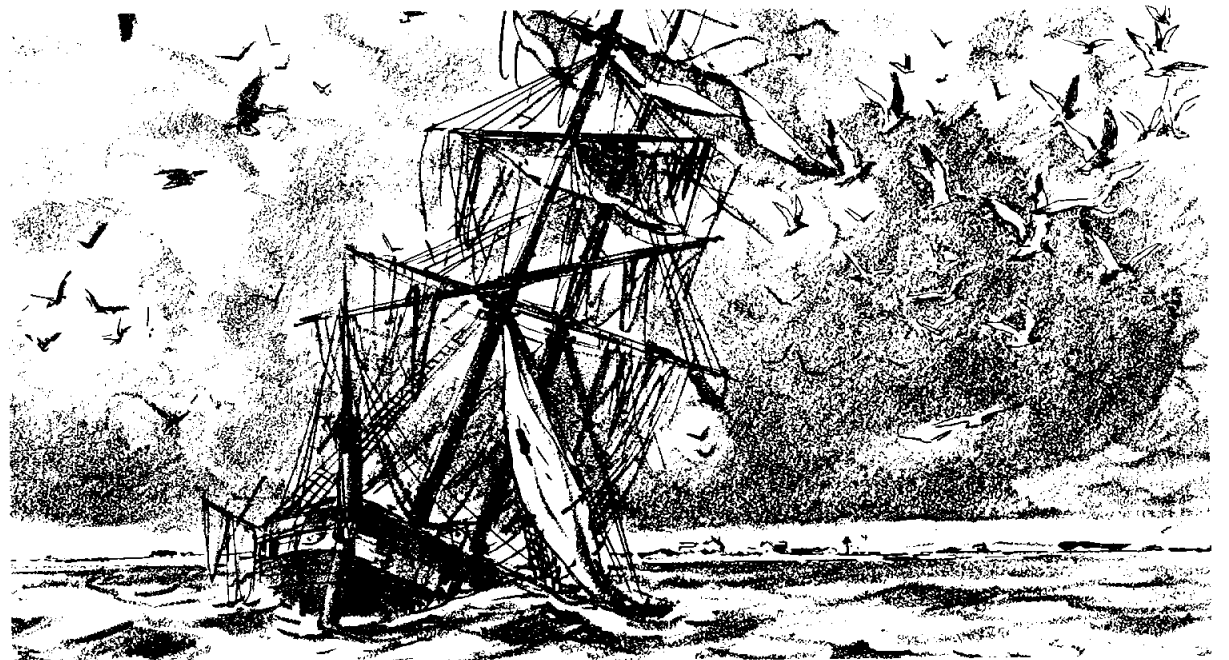
lowed the *Invincible* into shipwreck, and as the furious storm that beat her to pieces abated, the Texas Navy was no more.

From the fall of 1837 until the spring of 1838, Texas was without a ship to defend her interests on the Gulf. It might have been a serious situation, but for two fortunate circumstances. First, Mexico herself welcomed a chance to lick grievous wounds suffered at sea. The same storms that had proved the undoing of the *Invincible* and the *Brutus* had sent Mexican warships limping back into port for repairs. And of course, money to repair them was as short in Mexico as in Texas.

A second situation that favored Texas during that interim period between navies was the activity of the French fleet in the Gulf of Mexico. Ill will that had been brewing for some time between Mexico and France broke at last into open hostility. French Admiral Baudin took his fleet up and down the Mexican coast, paralyzing shipping and blasting seacoast towns. Better still, from a Texan standpoint, he seized and held the Mexican fleet. The French, moreover, did something the Texans had failed to do at San Jacinto—they inflicted bodily harm on Santa Anna.

Ever in the eye of shifting political hurricanes, Santa Anna led a charge against a French landing party—when he saw that it was already leaving the town, anyway, making its way back to the waiting ships. He had good reason to think he had timed his charge perfectly, and that the danger to his person was past—giving him a chance for glory at small risk. But he reckoned not with the covering fire from fleet batteries. One last salvo swept the town, so wounding Santa Anna in the leg that it had to be amputated. Even this stroke of ill luck he turned to his gain. A noble monument to the lost leg was erected in Mexico City, with burial ceremonies accompanied by the most florid eulogies!

The history of Texas from its earliest exploration through its colonization and growth into a republic, and finally as a state of the Union, is an extremely interesting history. Through the courtesy of Humble Oil and Refining Company, articles from Humble's *Texas Sketchbook* will appear in the *Roundup* during the next several months. The articles were written by R. T. Fields. Pencil sketches and watercolors accompanying the articles are by the noted Texas artist E. M. "Buck" Schiwetz. Many of the places described in the series are within weekend driving distance of MSC.



Wreck of the *Invincible*

by E. M. Schiwetz

Annual Leave Policy Provides Flexibility

Did you know that the 1967 leave year will consist of 27 bi-weekly pay periods? It began Sunday, January 1, 1967, and ends Saturday, January 13, 1968.

Here are additional facts on leave for Federal employees:

Annual leave, for vacations or other personal business. Except for emergencies, must be authorized in advance, generally by the immediate supervisor.

Annual leave is earned at the following rates. Full-time employees with less than three years of service, 13 days a year; with three but less than 15 years service, 20 days a year; with 15 or more years, 26 days a year.

Generally, part-time employees with less than three years of service earn one hour of annual leave for each 20 hours in a pay status; with three but less than 15 years, one hour for each 13 hours; with more than 15 years, one hour for each 10 hours.

Annual leave may be accumulated within limitations. Certain overseas employees may accumulate 45 days, other employees 30 days. Additional annual leave cannot be accumulated. Employees must use all the leave earned each year, in excess of the maximum, or lose the unused portion.

Thirty days, or the amount carried forward at the beginning of the leave year (if more than 30 days) is the maximum for which lump-sum payments can be made on leaving Federal service.

Annual leave may be taken all at once, or in parts, at the discretion of the employing agency.

Sick leave, for medical, dental, optical and other appointments for physical examination and/or treatment, and for illness or injury. Advance authorization required for known appointments, scheduled surgery, etc. Absence requires proof of inability to work, in the form of a doctor's certificate or other evidence acceptable to the agency.

Full-time employees earn 13 days of sick leave a year, part-time employees one hour for each 20 hours in a pay status. There is no ceiling on accumulation.

Court and Jury Leave.—Employees summoned to court as witnesses for the United States or District of Columbia Government, or to serve on any Federal or state jury, may take leave with pay, with no charge against annual leave, but may not retain fees for such duty.

Military Leave may be given with pay for not more than 15 days in any calendar year to permanent or indefinite employees in the National Guard or one of the military reserve organizations when called to active duty or training with the Armed Forces.

Leave Without Pay may be granted on request at the employing agency's discretion whether or not there is accrued annual or sick leave, for such purposes as education of benefit to the agency, recovery from illness or disability, pending final disability retirement approval or final disability compensation action.

Advanced Leave.—Some agencies (including NASA) grant annual leave in advance of its being earned. Under certain circumstances, up to 30 days of sick leave may be advanced in case of serious illness or disability.

Administrative Leave may be granted by agencies to employees without charge to annual leave under special conditions. Examples—to vote, to donate blood, to attend job-related meetings. Under this category, too, come excused tardiness and early closing when weather conditions are extreme and/or hazardous.



ON DOTTED LINE—MSC Director Dr. Robert R. Gilruth signs an agreement between MSC and Lodge 2284 American Federation of Government Employees (AFL-CIO) covering all wage board employees at MSC except wood and plastic modelmakers. Seated left is Lodge president Alma Hurlbert; seated right is Director of Administration Wesley L. Hjernevik. Standing are Personnel Management branch chief Jack Lister, Personnel Division chief Floyd Brandon, Lodge chief steward Herman Fisher of Supply branch, and Lodge past president Fred Rowell of Technical Services Division.

Agreement Signed With Federation Covering Wage Board Employees

On August 14, NASA Administrator James E. Webb notified Dr. Robert R. Gilruth that the formal agreement between MSC and the American Federation of Government Employees, Lodge 2284 (AFL-CIO), had been approved. This agreement, which is the result of more than a year of discussions between MSC Management and the AFGE, sets the tone for employee-man-

agement cooperation at the Center.

The unit to which the new agreement is applicable consists of all wage board employees at MSC except the Wood and Plastic Modelmakers. Alma Hurlbert, Computation and Analysis Division, is President of the Local Lodge 2284.

The purpose of the new agreement is to promote and improve the efficient administration of the Federal Service within the meaning of Executive Order 10988, and to provide a framework for amicable discussion of matters of mutual interest at the Manned Spacecraft Center.

Key aspects of the agreement concern the basic right of all employees to join or refrain from joining the union without coercion; the allowance of reasonable time off during working hours to permit union officers

and stewards to carry out their approved official responsibilities to the employees of the union; the agreement that reassignment of union officials will be limited to instances where it is absolutely necessary to do so to better carry out the mission of MSC; and an agreement that, whenever requested, leaves of absence will be granted for employees to attend union activities unless compelling circumstances indicate otherwise.

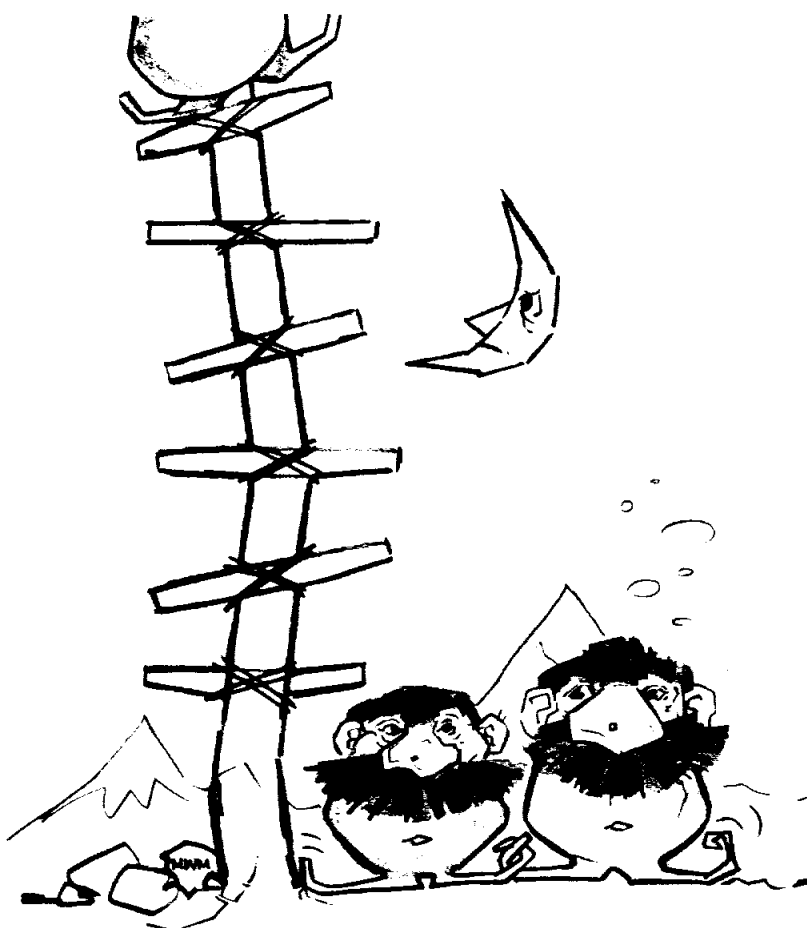
Another provision of the agreement is that all employees will be encouraged to participate in worthwhile charity drives at MSC, but that no coercion will be used by either union or Management officials to force participation.

The current agreement has been approved by John Griner, AFGE President, and will be in effect for two years.

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

Director Dr. Robert R. Gilruth
Public Affairs Officer Paul Haney
Editor Terry White
Staff Photographer A. "Pat" Patnesky

Long fight with short stick . . .



For Superior Performance



POSTHUMOUS AWARD — Mrs. Weldon F. Heath accepts a Sustained Superior Performance Award earned by her husband before his death September 12 of a heart attack. Special Assistant to the Director Paul E. Purser makes the presentation. Heath had been recently appointed assistant branch chief of Thermochemical Test Branch, Propulsion and Power Division, and had been recommended for the SSP for his leadership and contributions in test programs from December 1966 to June 1967, including fuel cells, cryogenic storage systems and Apollo command module flammability tests.

Credit Union Moves

The MSC Federal Credit Union is moving to Bldg 11, the new cafeteria building. Tentative move date is October 26-27, and the Credit Union will be closed for the move. Check with the Credit Union for exact dates.

Roundup Swap-Shop

(Deadline for classified ads is the Friday preceding Roundup publication date. Ads received after the deadline will be run in the next following issue. Send ads in writing to Roundup Editor, AP3. Ads will not be repeated unless requested. Use name and home telephone number.)

FOR SALE/RENT—REAL ESTATE

3 bedrm frame house w/attached garage on 2 acres ground, completely fenced. Front yd (132' x 150') has cyclone fence. Lots trees, several fruit & two pecan trees. About 18 miles from MSC. \$8500. Owner will finance. Babylonn Click, 932-2846 after 5. Polynesian style home, 3-2-2, family rm paneled in solid cypress, Bayside Terrace, 15 min. to NASA, low equity, call Jack Wiley GR 1-3731. 3-2-2 brick in Sagemont. Large paneled den, fenced yd, all-electric built-ins, intercom. For low equity and assuming loan. D. E. Rhoades HU 7-1192.

FOR SALE—AUTOS

67 Corvette Coupe, 427 engine, 3 dual carbs, FM, air, pwr steer, 4-speed close-ratio trans, 3.70 rear end, 10,000 miles. P. R. Charlton, 944-0208. 64 Ford Galaxie 500, 4-dr, V-8, automatic, low mileage, clean, pwr extras, good rubber. R. B. Hill, 471-4305. 64 Dodge Dart, 270, white, 2-door, V-8, stick shift, very good condition. R. B. Hill, 471-4305. 62 Pontiac Tempest 2 door, A/C, WW, R, H, \$500. R. Latta Dickinson 534-4380. 66 Ford Galaxie 500 convertible, air, cruise-o-matic pwr S & B, AM/FM 390 2V, 13,000 miles. John R. Pierce, HU 8-0354 after 5. 59 2-door Ford, John R. Pierce, HU 8-0354 after 5. 66 Impala 4-dr hdtp., fully equipped. Will arrange financing, best offer. James Lovell, 877-3250. 63 Dodge 440 wagon, needs body work, air cond, auto trans, 383 V-8, low mileage. \$375. Don Heywood, Dickinson 534-3979. 65 Mustang, 2 plus 2 fastback, 289 hp, auto trans, air cond, GTO package, pwr brakes and steering, rally pack, Firestone super sports, low mileage, one owner, \$1495. Don Heywood, Dickinson 534-3979. 57 Oldsmobile 4-dr sedan, good condition, \$250. One owner, Jim Peacock, 932-4458 League City. 56 Ford 4-door sedan, V-8 standard, new battery and paint, radio and heater, \$150. Charlie Jones, MI 3-5547. 64 Oldsmobile Holiday sedan, white exterior w/red vinyl interior & carpets, factory air, radio/heater, power steering & brakes, automatic transmission, new tires, perfect condition, unusually clean. \$1,595. M. Hall, 946-8921 after 5:30. 57 DeSoto V-8. Standard trans with over-drive, radio, heater, excellent running condition, good second car. \$215 or best offer. Paul G. Stokholm, 932-3753, Webster. 58 Ford Country Sedan station wagon, air, auto., \$225, Roger Carter, 591-2295. 64 MGB, overdrive, wire wheels, \$1295, Dick Beaudry, GR 3-4958. 63 Rambler 440, one owner, good condition, best offer over \$300. C. Sullivan, 591-3968 after 5:30. 64 yellow Triumph Spitfire convertible, good tires, radio, heater, 28-plus mpg. Will sell for wholesale price. P. Howell, 944-3769 after 5:30. Jeep for sale or trade, excellent condition, new tires, new top, front hubs & several spare parts. Trade for good sports car or late model VW. R. I. Lowndes, HU 8-3530 Ext. 2711, or 534-5682. 59 Fiat 1100, 4-door sedan, 4 good tires, mileage less than 60,000. Any reasonable offer considered. Richburg, Ext. 3891 (No home phone). 64 LeMans, GTO, loaded, excellent condition, automatic trans., pwr steering and brakes, factory air, pwr stereo deck, delux

interior, low mileage, original owner, other extras. \$1550. Dianne Milner 591-2509 or 591-3277 after 5. 62 Chevy II, 6 cyl, 4 dr., good tires, clean, \$550. John J. Cunningham, HU 8-1390. Clean 62 Valiant, radio, heater, air-conditioned, push button. 1926 Model T Ford, 2 extra motors and lots of new and used parts. New, modified motor for quarter midget race car. Phyllis Morton, 946-4752. FOR SALE—MISCELLANEOUS Lowrey transistorized electric organ—2 manual, full pedal board, Leslie speaker, many extras, including bench. Walnut finish, 2 yrs old, but like new. Cost \$1450. Will sell for \$900. Can be financed at \$24/mo. Male Beagle puppy. One year old. Nice looking hound with an excellent pedigree. He has been trained to hunt rabbits as well as being a child's pet. Has permanent shots \$40. Ted Cone, GR 3-8835. 7.5 cubic ft. refrigerator, \$35, Sears deluxe 30" range \$65, Wards portable dishwasher \$50, International stamp collection \$214 value for \$95. Miscellaneous silver holloware, priced per each piece. Ben Locher, GR 1-4387, LaPorte. Wedding dress, size 10, has been cleaned and is in perfect condition. Has detachable floor length train, \$70. Carolyn Davis, 3327 (no home phone). 12 x 12 Wonderplush, antique gold, \$100. 9 x 12 nylon, off white, \$50. Also, baby crib. James B. Irwin, GR 1-0373. Sailboats for sale or rent: 13'9" Scorpion board-boat, 15' 3" Demon centerboard sloop. Bob Ward Nassau Bay 591-2182. Nice dresser and night stand, good condition. J. Whiteley HU 6-3804 after 5. English Pointers, AKC reg. Top show and field stock, liver and white pups, \$100. Rita Heywood, 534-3979. 22 cu. ft. Carrier upright freezer, \$100. Travis Brown, HU 2-1582. SSB transistor, 3-band, with AC power supply, excellent condition, low price. Frank Loch, GR 1-4700. Altec Lansing corner enclosure, Jim Lansing 15" speaker with ring radiator and crossover; Reh-O-Kut turntable with transcription arm, Altec Lansing Amplifier (Mon.). \$145. R. E. Wilson, HU 8-4139. Golf clubs, Sam Snead Blue Ridge, 8 irons, 3 woods, and bag; \$65. Bowling ball, Manhattan, 16 lb., with bag; \$10. Two gas space heaters \$3 and \$5. Beginners water skis used one time \$5. Three Coast Guard approved life jackets \$1 ea. 8mm movie camera: \$5. Light Bar: \$2. Home barber kit, like new: \$2. 7 ft. aluminum Christmas tree with stand: \$7. Mary Dunn, GR 9-1295 after 6. Mother (\$2) and two young guinea pigs, weaned, (\$1.50 ea) very affectionate and easy to care for, Ada W. Moon, JA 8-6079. Upright piano, mahogany finish, good condition, matching bench. \$175. Mason Hagan, HU 8-0044. Spinet organ, Baldwin Orgasonic, ebony finish, \$500. LaVerne Hansen, HU 8-3594. Modern walnut coffee table by Paul McCobb, size 5 ft. by 1 1/2 ft. by 10 in. ht. Excellent condition. \$20. Richard High, 591-3254. 65 Harley Davidson motorcycle, 165 cc "Scat." Used very little (2800 miles). No scratches and in perfect condition. Owner in Army, must sell. Cost \$500, will take \$325. Wayland E. Hull, 877-1324. 15 ft. Santa Fe camp trailer, sleeps 6. J. Fitzgerald, 534-3048 Dickinson. Remington Model 870 pump shotgun with modified and full choke barrels. Good goose gun, xclnt condition. James Sulester, MI 5-5603.

18 ft. runabout, 40 hp Evinrude selectric, big wheel tilt trailer, complete. \$900, Ted Guillory, HU 4-5022. Factory built Electro-voice Aristocrat enclosure. Includes EV LT-12 woofer, EV horn tweeter and cross-over network. Roddy Hotz, 591-4721. 21" RCA B&W TV set, maple console, \$25. Larry Annim, HU 8-2757. 1961 Cruise-along 26' cabin cruiser, \$2,750. Sleeps 4, head, ice box, fresh water tank, 2 gray marine 135 hp, radio, compass, depth finder, bilge pump (new), bilge vents and blower, 110-v wiring, three anchors, lines, two deck chairs, 8 life preservers, fire extinguishers, flares, etc. Good condition. Needs paint. Located Seabrook Ship Yard, Shed F, Slip 19. Dennis Fielder, 649-6243. Aluminum 8 ft. Jon-boat with oars \$30. And 10' x 10' heavy canvas umbrella tent \$15. Both in good shape. P. F. Hurt, HU 2-7837. Paint sprayer, \$30. 1/3 hp motor, 2 1/2 CFM at 35 PSI, 15 ft. hose, one quart spray gun with interchangeable internal/external mix nozzles. Brand new, original shipping carton. Dick Glover, 944-4863 after 5. Four tickets to the Univ. of Texas vs Rice Univ. football game, October 28. Tom Moser, 877-3048. Upright piano, has been rebuilt. Judy Lender, 946-4031. RCA record player, child's new, 3-speed, used 1 month, \$15. R. Ritz, 591-2433. Maple desk, 7 drawers, 42" W, 30" H, 20" D. Excellent condition, Ed Lattier, 534-2756, Dickinson. 19 ft. fiberglass keel sloop with trailer and dacron sails, stable day sailer, \$1250. Call Jack Wiley, GR 1-3731. Come fly with the Skyrovers, a non-profit corporation. Flying club owned aircraft. J3-\$4.50/hr; 172-\$5.50/hr wet. Dues \$10/month includes first hour free. Club is expanding to buy 182 or equal. Dick Grow, 944-1305. Two Lafayette Hi-Fi speakers, 12", 3-element, 50-17500 cps, like new. Both for \$15, G. O. Miller, 932-2646. Large wooden office desk, brown 2-piece sectional couch, metal typewriter table, two tourquoise & black quarter midget racing uniforms, modified, new motor for quarter midget race car. Phyllis Morton, 946-4752. 25-in. 1959 table model Zenith TV, B&W, good condition. 12 x 14 ft. cotton beige carpet, excellent condition, Mrs. Edward H. White, 877-2231. 14 ft. fiberglass runabout, 35 hp electric-start Johnson motor and big wheel trailer, good condition. \$400. Mike Lonsberry, 16461 El Camino Real, Apt. 3, 488-0627 after 5. Magnavox console hi-fi, stereo pickup, AM/FM radio, excellent condition, Donald Blume, 591-2428. 65 Honda trail bike 90 cc buddy seat and rack, 2200 miles, adult rider, \$250, Underhill, 946-8390. 59 Cushman Eagle (needs assembled) new paint, rebuilt motor. Sell or swap for 4 mag type steel wheels 14" for Cougar or Ford. Underhill 946-8390. 15 ft. Yellow Jacket (needs deck refinished) Mark 55 Mercury (needs water pump) big wheel trailer. \$350. Underhill 946-8390.

WANTED Bedroom wardrobe closet. Kodak Instamatic 104 or similar, Charles Clarke, 877-2426. House wanted: from owner, 3 or 4 bedrm, nicer home, Friendswood area, prefer Colonial style on large wooded lot. Gracie Smith, HU 8-2281. Young man seeks roommate between 21 and 25 for efficiency apartment at Portofino Strip. Hans Von Ross, 591-2412. Would like to rent a car garage or similar building near MSC. High hopes of restoring old Jaguar classic to original condition. R. L. Jones 591-2318. Wanted to buy: Bassinet in good condition, with or without skirt. Ada W. Moon, JA 8-6079. Ride from Hillcrest Village in Alvin to Bldg. 8, 8:00 to 4:30. Faye Roper, OL 8-5514, Alvin. Model airplane ignition engines and parts. Also magazines: Flying Aces, Air Trails, Model Airplane News, etc. A. C. Copeland, Jr., 944-3104. Good homes for half-Persian kittens, free, good with children, 2 litters to choose from. Mothers are grand champion bloodline pedigreed Persians. D. DeAtkine, HU 7-1556.

Paperwork Eliminator



COST CUTTER—Herbert L. Tash, ASPO Program Control Division, left, shows NASA Administrator James E. Webb the award plaque he received September 26 from the Administrative Management Society for saving the government \$5 million in costs by streamlining Apollo data management procedures. Tash was the first NASA employee to receive the Federal Government Paperwork Management Award. The award luncheon was held at the Shoreham Hotel, Washington, D.C.

Credit Union Straight Talk

By Paul Sturtevant

The true success of your Credit Union is not measured by the amount of money it accumulates nor by the dividends it pays, but by how well it serves its members, how well it helps them form habits of thrift, and how well it helps to teach them to control their own finances.

We hope that we have encouraged you to save small sums which you would otherwise spend. These sums, when frequently and regularly saved, develop in the members habits of thrift which vividly demonstrate the practical application of financial management.

Genuine thrift, however, goes far beyond the amassing of money. It also means the wise use of money. In a federal credit union, the savings members accumulate are used to make loans to other members, granted upon the judgment of officials elected by members for that purpose. Thus, savings are not hoarded but are put to work by enabling members to provide not only for necessities and emergencies but also by helping them raise their general standard of living as well.

The supreme objective of any federal credit union is to assist its members, through systematic thrift and the wise use of credit, obtain more of the things that make life richer and more satisfying while at the same time they are strengthening their overall financial security.

Don't forget—"Not for profit, not for charity, but for service"

—this is the slogan of your MSC Federal Credit Union.

Now that most of you have received your copy of the new Credit Union booklet *Know Your Credit Union*, we are expecting to hear from you and to have many new members. Your questions and constructive criticism are welcome and you can be sure that your questions/criticism will get the "straight answers" as suggested by the column heading above.

The officers of your Credit Union will give a hearty welcome to those who wish to take an active part in your Credit Union.

The Board of Directors is pleased to announce the nomination and acceptance of Blanche Henderson and Theodore Paulos to the Supervisory Board.

We have several openings for other Credit Union committees and your assistance in filling these vacancies will be appreciated.

If you have not received your copy of the new booklet, copies are available at the Credit Union.

Lawson W. Campbell, a new Credit Union member, won this month's ticket drawing and selected tickets to the Houston Symphony.

These drawings will end the first of December, so you have two more chances to win. The rules are still the same. Join the Credit Union and for each share deposit you will receive one chance on the drawing for tickets.

MSC/EAFB Flag Football League

Standings as of October 6

TEAM	WON	LOST	TEAM	WON	LOST
CAD	4	0	2578th	1	1
FCD	3	0	LRD	1	3
MPAD	3	0	Coast Guard	0	3
TANG	4	1	Bandits	0	3
SMD	2	2	Rats	0	3
Packers	2	2	747th	0	2

Peanuts

One FAIR SHARE Gift Works Many Wonders!

I'VE ALWAYS BELIEVED IN THE POWER OF MASS COMMUNICATION



SCHULZ

But no sawdust . . .



CIRCUS DECOR—Betty Schick and Ed Stelly decorate the Bldg 3 cafeteria in a circus motif to publicize tomorrow's fifth annual MSC Picnic at Galveston County Park in League City. The picnic will feature varied contests and entertainment events for all family age groups. The picnic story on page one of this issue lists winning numbers for prizes to be given at the picnic; compare these numbers with the number on the special flyer distributed with the last labor distribution sheet.



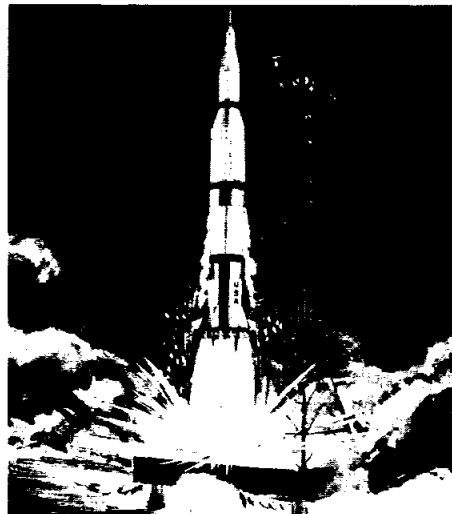
Dr. Robert H. Goddard launched the world's first liquid propellant rocket at Auburn, Massachusetts. This 2-1/2 second flight covered 184 feet and served as the 'Kitty Hawk' event of aerospace exploration.

Dr. Goddard's early engine produced fifty pounds of thrust, yet pales in comparison to such progeny as the F-1.

MARCH 16, 1926

Saturn's five-first stage F-1 engines, each made up of some 16,000 parts, generate 7.5 million pounds of thrust; enough to accelerate the 6 million-pound Apollo system to better than 6,000 mph during the first 2-1/2 minutes of flight.

But don't let Saturn's brobdingnagian size and unprecedented complexity fool you. Apollo success can come very easily -- by each of us doing the little jobs well.



KEEP NASA THE SYMBOL OF EXCELLENCE
MANNED FLIGHT AWARENESS
APOLLO

Surveyor V Answers Many Lunar Questions

A test conducted with the Surveyor V spacecraft on the lunar surface has filled an important blank in the information needed by engineers planning the Apollo program for a manned landing on the moon.

Photographs of the surface immediately under the rocket nozzles indicate that no craters were made on the moon and no appreciable dust cloud was created by the exhaust. The report was made by officials of NASA's Office of Manned Space Flight.

Surveyor V was launched by NASA September 8 from Kennedy Space center, Fla., and achieved a soft-landing on the moon September 10. The test involved firing the small vernier engines to observe the effect of the rocket exhaust as it struck the lunar surface during a burn of 0.2 second.

A picture taken before the rocket firing showed four or five clumps of lunar soil in the area and after the rocket operation only one clump remained.

Only one "little blob" of dust was detected on the Surveyor's outer surface and this may have been deposited when the spacecraft landed.

This information indicates there will be no problem associated with the effects of the rocket exhaust of the Lunar Module which will carry two astronauts to and from the moon. There was a lack of data to indicate whether the rocket exhaust would "dig a hole" in the surface immediately under the landing spacecraft, or whether it would scatter dust around the spacecraft and seriously curtail the visibility of the crew returning to earth.

The Surveyor vernier engines were operated at a thrust of 17, 20 and 27 pounds. By scaling up these figures arithmetically, engineers can apply them to the larger Lunar Module descent engine to be used in the manned lunar landing.

Additional pictures under different light conditions will be made and a "look" at a mirror on the Surveyor spacecraft will be taken to verify whether the mirror was pitted or otherwise obscured as a result of the rocket thrust and resulting scattering of lunar soil particles.

Summer Intern Completes Work On Physics PhD

Dr. Kurt H. P. H. Sinz, a member of the 1967 Aerospace Summer Intern Program, completed work for his PhD degree in Physics from Texas A&M University in August. The major topic of his research was "Plasma-Kinetic Theory."

Sinz was assigned to the Theory and Analysis Office, Computation and Analysis Division, under the direction of Dr. Bryan Oldham where he was



able to continue research in his area of interest performing numerical analysis and nonlinear analysis in this subject area.

As a result of the close correlation of his assignment as a summer intern to his dissertation subject, he was able to apply some of his findings to his academic work.

Sinz completed his summer internship September 29, but will remain at MSC as a Postdoctoral Resident Research Associate in the Theory and Analysis Office under a NASA grant administered by the National Research Council.

The purpose of the National Research Council Postdoctoral Resident Research Associateships is to provide to investigators of unusual ability and promise an opportunity for research in the various areas of science having to do with space exploration.

Research Associates are selected by an evaluation board appointed by the National Research Council.

Sinz received his BS in Physics from La Sierra College in Riverside, California, where he was a California State Scholar. He obtained his PhD degree in Physics while on a full graduate school fellowship. During his graduate study, several previous summers were spent at the U.S. Naval Ordnance Test Station, China Lake, California, in research work.



BUY U.S. SAVINGS BONDS

WHERE YOU BANK OR WORK

Is Today One Of Those Days?

Churchy LaFemme and others of Pogo's friends in Okefenokee Swamp can perhaps conveniently say that "Friday the thirteenth come on Toosday this month." But we cannot move Fridays around; 1967 has dealt us two Fridays the thirteenth and today is one of them.

If nothing goes right today and one gets the feeling that he "shouldastoodinbed," it can all be chalked up to what day it is.

Perhaps a calendar reform will be in order at the millennium.