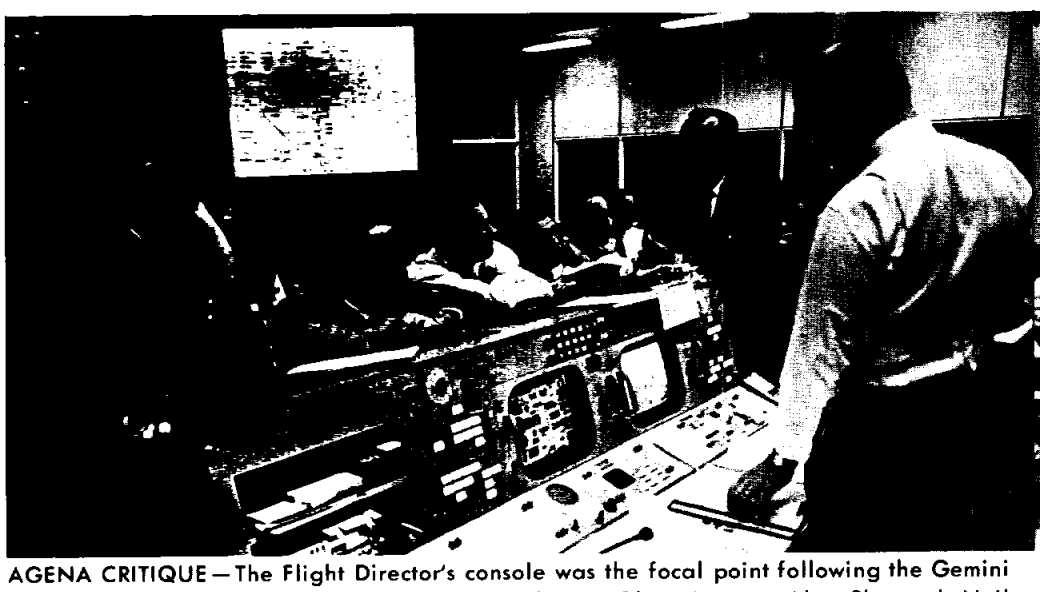
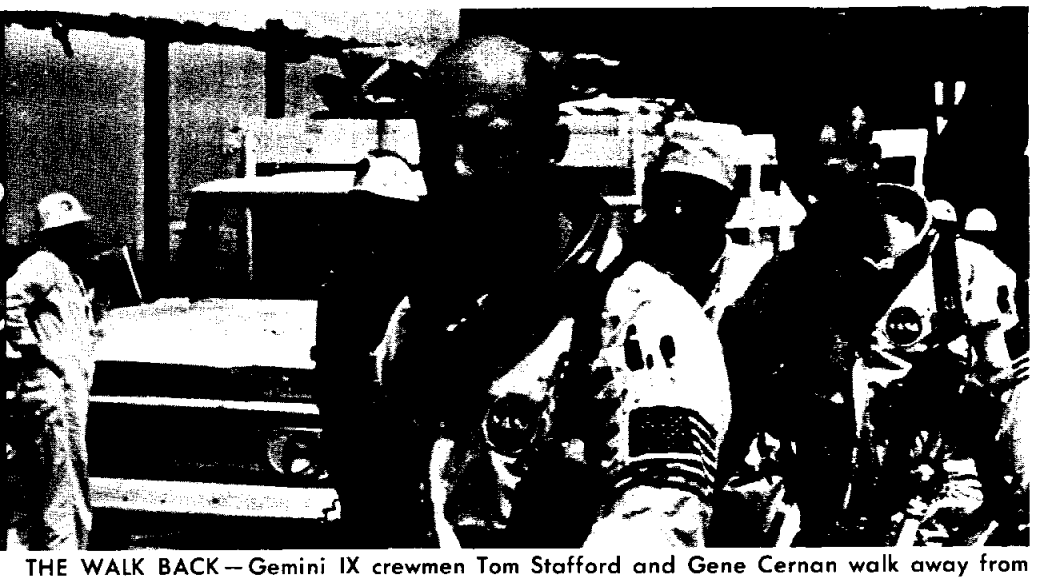


AGENA CRITIQUE—The Flight Director's console was the focal point following the Gemini IX Agena's failure to orbit May 17. Left to right are Glynn Lunney, Alan Shepard, Neil Armstrong, Richard Gordon, Richard Glover, Christopher C. Kraft and Eugene Kranz.



THE WALK BACK—Gemini IX crewmen Tom Stafford and Gene Cernan walk away from Launch Complex 19 with helmets doffed following the scrub of the mission. This was Stafford's third time to walk away from a scrubbed launch. Gemini VI was twice scrubbed.

Space Unit Formed; Medic Effort Realigned

Creation of a new Space Science Division, consolidation of medical functions, and title changes for some key management positions at the NASA Manned Spacecraft Center were announced recently by MSC Director Robert R. Gilruth.

The Space Sciences Division, which is a part of the Engineering and Development Directorate, will provide a focal point for expanding scientific activities in manned space flight, Dr. Gilruth said.

He listed four functional areas in which the Space Sciences Division is expected to make major contributions. The division will:

- Provide an avenue through which scientists from universities and other organizations can participate in scientific experiments associated with U. S. manned space flights.
- Evaluate space environmental data resulting from both unmanned and manned space flights, and thus contribute to spacecraft design and to ground and flight operations procedures.
- Develop and implement procedures for receiving and handling lunar samples, and other material objects originating in space.
- Help train U. S. spaceflight crews in the sciences.

Initial staffing for the division will be 76 positions drawn from the Engineering and Development Directorate. Robert O. Piland will head the group until a permanent division chief can be selected. Piland will continue to carry out his present assignments as Manager of the Experiments Program Office and Manager for Experiments for the entire Engineering and Development organization.

The consolidated Medical Directorate combines the functions of the Chief of Center Medical Programs with biomedical research functions previously performed by a segment of the Crew Systems Division and the medical operations functions previously performed by the Center Medical Office. It will be under the direction of Dr. Charles A. Berry, formerly Chief of Center Medical Programs. Berry's new title is Director, Medical Research and Operations. The responsibility includes biomedical research, all medical procedures in connection with manned flights, medical support for hazardous manned tests, medical care of the astronauts, and occupational medicine.

The Medical Directorate will include a Biomedical Research Office, headed by Dr. Lawrence F. Dietlein; a Medical Operations Office, under Dr. D. Owen Coons; and an Occupational and Environmental Medicine Office, with Dr. Coons as acting head.

The addition of the Medical Directorate brings to five the number of directorates at MSC. Dr. Gilruth said the four existing Assistant Directors of the Center would from now on be known as Directors. The four are: Director of Administration, Wesley L. Hjornevik; Director of Flight Crew Operations, Donald K. Slayton; Director of Engineering and Development, Dr. Maxime A. Faget; and Director of Flight Operations, Christopher C. Kraft, Jr. The change was made because of the expanding responsibilities in these areas.

(Continued on page 2)

Space News ROUNDUP!

VOL. 5, NO. 16 MANNED SPACECRAFT CENTER, HOUSTON, TEXAS MAY 27, 1966

Scrubbed Gemini IX Mission Reset For May 31 Launch

The multi-color rear-projection trajectory plotboard in Mission Control showed a nominal flight path for the Gemini IX Atlas/Agena rendezvous vehicle as it lifted off Launch Complex 14 at 9:15: 03 CST May 17 following a faultless countdown. But as the plotboard scriber reached the point for booster engine cutoff, things began to turn sour.

Incoming data on the Atlas/Agena flight path became erratic and the plotboard on the front wall of the Gemini Mission Control Operations Room went wild. It soon became apparent that the Atlas Standard Launch Vehicle was not acting in a standard manner, and at T+8 min 47 sec definite evidence showed that the vehicle had not achieved orbit and was lost.

Mission Director William Schneider scrubbed the mission ten minutes after liftoff, and a disappointed Gemini IX crew climbed out of the Gemini IX spacecraft to await launch on a later day.

That day has been set as no earlier than Tuesday, May 31.

ATDA Used

In the re-scheduled Gemini IX mission, an alternate rendezvous and docking vehicle—the Augmented Target Docking Adapter (ATDA)—will be used. The ATDA was developed as an alternate for the Gemini VIII mission or subsequent missions in which an Agena was not available.

A GOOD START—But a bad finish. The Gemini IX Agena rendezvous vehicle failed to orbit when one engine of the Atlas gimbaled hard over and ground guidance was lost.

"We are going to make a very determined effort to complete preparation and checkout of another Atlas booster and the ATDA by May 31," said NASA Associate Administrator for Manned Space Flight Dr. George E. Mueller. "However, it is a very difficult task and it will not be possible to set a firm launch date until the work is well under way."

Engine Hard-Over

Sorting through the Atlas/Agena flight data, the Gemini Flight Safety Review Board by 2 pm CST launch day issued a statement on the cause of the loss of the rendezvous vehicle. "The Atlas No. 2 booster engine swiveled to an extreme hard-over position about 10 seconds before booster engine cutoff." the statement said. "The other booster engine and the sustainer engine acting under auto-pilot control, continued to work to counter the asymmetrical thrust.

"After booster separation the vehicle continued the flight under sustained thrust but at a down angle. It had also rolled to a position to where ground guidance could not lock on or reacquire. Signals to shut down the sustainer engine and inhibit ignition of the Agena engine were sent and acted upon by the vehicles. The Agena separated on schedule and both vehicles plunged into the sea."

Possible causes of the booster engine malfunction are under investigation. Additionally, Maj. Gen. Ben I. Funk, Chairman of the Gemini Flight Safety Review Board, called for an immediate detailed technical review of the Atlas Standard Launch Vehicle with the Atlas associate contractor team.

Next Tuesday's rescheduled launch of the Atlas/ATDA is

(Continued on page 8)

LEM Adapter Arrives For Vibration Testing

An Apollo Spacecraft LEM Adapter (SLA), transported by helicopter from Tulsa to MSC on May 13, will get a facelifting for future LEM test support at MSC. *(Photo on page 8)*

The adapter, a truncated cone 28 feet high and about 22 feet in diameter at the bottom and 13 feet at the top, looked twice that big in its hauling rig when it was deposited at the Center antenna range west of Second Street by an Army CH-47A helicopter.

In flight the section mates the Saturn S-IVB stage to the Apollo Service Module and houses the LEM inside. In its role at MSC the adapter will go into a spacecraft stack being assembled in Building 49, the Vibration and Acoustics Laboratory.

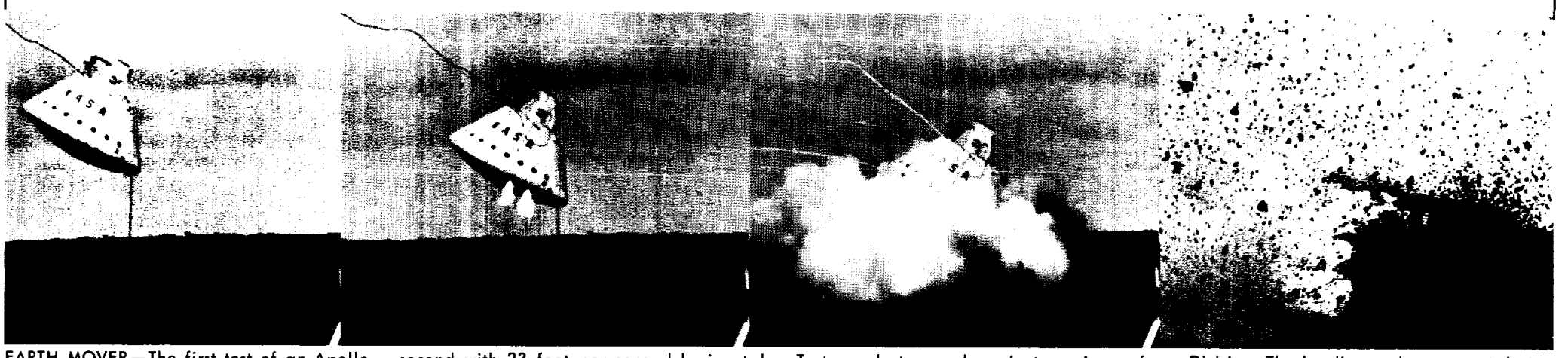
Sometime this Fall a Lunar Excursion Module is expected to join the adapter and the rest of the stack for various vibro-acoustic tests.

The adapter presently is in Building 10 for removal of the transportation and handling gear and for patching and cleaning. It has just undergone a series of tests at North American Aviation's Tulsa facility.

Within a week the adapter will be moved to Building 49 for installation and verification. At that time an airframe instrument unit, which connects the SLA and the S-IVB, and the adapter will be the only airframe or flight-type segments in the spacecraft stack. The boilerplate Service Module will be replaced later with S/C 007 SM.

Details of the complete vibro-acoustic test program involving the LEM and its adapter are currently being established.

BACK TO THE SOIL



EARTH MOVER—The first test of an Apollo boilerplate equipped with landing rockets took place at Ellington AFB on May 16. The spacecraft was dropped at 30 feet per second with 23 feet per second horizontal velocity. A force of 6 g's was measured inside the spacecraft during the landing. Test conductor and project engineer for the drop was Jack Lands, Landing Technology Branch of Structures and Mechanics Division. The landing rocket system is being developed by MSC for possible application on future spacecraft.

THE HATCH ACT AND YOU—

In a Quandary About Politics? Perhaps These Answers Clarify

In the face of uncertainties as to what restrictions on political activity are imposed upon federal employees by the Hatch Act, some MSC employees apparently are not participating at all rather than risking violations of the Act.

Pamphlet 20 of the Civil Service Commission includes the following statement:

"Each officer and employee is responsible for refraining from prohibited political activity. He is presumed to be acquainted with the legal provisions applicable to him, and his ignorance of them will not excuse a violation. If he is in doubt as to whether any particular political activity is prohibited, he should present the matter in writing to the United States Civil Service Commission before engaging in the activity."

The *Roundup* has obtained from MSC Chief Counsel J. W. Ould a series of answers to questions on how the Act affects MSC employees. He cautions that his interpretations of the Hatch Act or Civil Service Commission regulations would not be binding upon the Commission or upon the courts.

The following questions and answers spell out the limitations on political activity to be observed by MSC employees:

•Can I vote in a primary election? Yes.

•Can I attend a precinct convention? Yes, and you may cast your vote on any question presented. You may not go beyond this in participating in deliberations. For example, you may not act as an officer of the meeting, address it or make motions, or prepare or assist in preparing resolutions, or assume to represent others, or take any other prominent part in the convention.

•Can I be a precinct chairman? No.

•Can I attend a partisan county, state or national convention as a delegate? No.

•Can I run for city council, water board or school board positions? If the position requires only part-time services, and if your employing agency determines that holding the position will not conflict or interfere with your official duties for the government, you may do so if this does not involve you in partisan political activity prohibited by the Hatch Act. The employee remains responsible for seeing that he does not violate the restrictions.

The Texas constitution prohibits any individual from holding two state offices, or one state and one federal office, and also payment of compensation from the state as salary or other compensation to the holder of an office or position who also holds another office or position under the state or federal government. The dual compensation provision seems unlikely to affect local city council, water board and school board offices.

The restriction against holding two offices is somewhat uncertain in its application because of questions as to what constitutes the holding of a federal "office" within the meaning of the Texas constitution. It seems likely that the only federal position which would be considered an office is one in which the federal employee exercises any so-called "sovereign power of government," which could include the authority to make decisions that affect the private rights or conduct of members of the general public.

•Can I endorse or campaign for a partisan candidate by displaying signs in my yard or my car, attending or giving a coffee, distributing literature or by participating in telephone surveys? Employees are not prohibited from wearing political badges or buttons or from displaying political posters or pictures in the windows of their homes or on their automobiles. You may attend a coffee but may not give one, nor may you distribute campaign literature, badges or buttons. Telephone surveys also appear to be prohibited activities.

•Can I give a coffee for a nonpartisan type election such as water board, school board or city councilman? Yes, assuming the election and any campaign preceding it are in fact nonpartisan.

•Are there some MSC employees who can participate in some aspects of partisan politics and others who cannot? The Hatch Act has no exceptions for partisan politics for regular MSC Civil Service employees. The only exception is that persons employed on an irregular or occasional basis (such as experts or consultants on a per diem basis) are subject to the political activity instructions of the Hatch Act while in an active-duty status only, and for the entire 24 hours of any day of actual employment. Otherwise, temporary, part-time and emergency employees are subject to the Act and to Civil Service regulations.

Moreover, an employee subject to the prohibitions remains subject to them while on leave with or without pay or on furlough. It is not permissible to take leave of absence for the purpose of working with a political candidate, committee or organization; or for the purpose of becoming a candidate for office with the intention of resigning the federal position if nominated or elected.

Indirect political activity is also prohibited under the Act. Any political activity that is prohibited an employee acting independently is *also* prohibited an employee acting in open or secret cooperation with others. Whatever the employee may not do personally, he may not do indirectly or through an agent, officer or employee chosen by him or subject to his control.

Federal employees are, therefore, accountable for political activity by persons other than themselves, including wives or husbands, if in fact the employees are thus accomplishing by collusion and indirection what they may not lawfully do directly and openly. Political activity, regardless of the methods or means used by the employee, constitutes the violation.

New Division Formed

(Continued from page 1)

With the changes, the MSC organization under Dr. Gilruth is as follows: Second in command is George M. Low, Deputy Director and general manager of the Center.

Paul E. Purser continues as Special Assistant to Dr. Gilruth.

The Center's two major programs, Gemini and the Apollo Spacecraft Program, are managed by Charles W. Mathews and Dr. Joseph F. Shea, respectively.

These programs are supported by a functional organization consisting of Engineering and Development, Flight Crew Operations, Medical Research and Operations, Flight Operations, and Administrative directorates.

Testing of Apollo spacecraft propulsion systems is accomplished at MSC's White Sands Test Facility, Las Cruces, New Mexico, managed by Martin L. Raines.

Staff support to the entire organization is provided by the Public Affairs Office, headed by Paul Haney; Legal Office, under J. Wallace Ould; and the Flight Safety Office, headed by F. John Bailey, Jr.

Aerospace Writing Program Offered 25 Graduate Students

The First MSC Aerospace Analysis and Writing Program has offered summer positions to 25 graduate students from 20 colleges and universities across the country. Majors in engineering and the physical and information sciences, the students will work closely with MSC engineers and scientists in analyzing basic technical data and each co-authoring at least one scientific engineering report.

Students offered the positions were selected from those highly recommended by college officials and who have shown a special interest in technical reporting. All have top academic standings.

MSC Director Dr. Robert R. Gilruth said that "a great wealth of technical information has been developed at MSC which has not been put into a useable report form. This program should provide a means of fomulating several excellent reports and will, at the same time, give outstanding college students an unusual opportunity to contribute to the Center's program."

Students who have been offered MSC Aerospace Analysis and Writing Program positions are as follows:

Charlene Mason, University of Minnesota; Gary G. Gaffney, Tulane University; Raymond F. Machacek, University of Iowa; Robert A. Jacobson, Purdue University; Walter R. Koenig, University of Missouri; Walton E. Fredrick, University of Washington; and William R. Higgs, Louisiana Polytechnic Institute.

J. T. Knoles, Texas Christian University; Lloyd Pernela, Notre Dame University; Otis Byrd, Lamar State College of Technology; Carl M. Applewhite, Oklahoma State University; Joseph S. Cole, University of Houston; Daniel Goodman, Stanford University; James A. Anderson, Wayne State University; and Allen B. Rochkind, Carnegie Institute of Technology.

Charles S. Portwood, University of California; Brandford W. Southworth, University of California; Harold R. Anderson, Stanford University; Arnold G. Reinhold, Massachusetts Institute of Technology; Kenneth Duerkson, Southwestern Oklahoma State College; Geoffrey Roth, University of Illinois; Charles E. Lear, University of Texas; Robert J. Korsan, Manhattan College; Gilberto Garza, Texas College of Arts and Industries; and Glenn H. Thobe, Ohio State University.

Flyers Seek Members

The MSC Aero Club, on a recruiting drive for 10 new members, expects delivery of a Beech T-34 two-place aircraft next month pending outcome of negotiations with the Civil Air Patrol. Club ground school began May 24.

DR. LLOYD V. BERKNER ANSWERS—

Where Do Scientists Stand Regarding Space?

Dr. Lloyd V. Berkner, president of the Graduate Research Center of the Southwest, April 22 told a group of 450 MSC employees that the nation cannot afford to surrender technological leadership in space, and that to keep this leadership there must be realistic and productive goals and objectives.

Dr. Berkner's talk, "The Development of Science in Space," was an in-depth critique of scientists' attitudes toward space exploration, its demands upon them, and the general relationship between the scientific community and the space program.

"What is the position of scientists with respect to space?" asked Dr. Berkner. "When you ask that question you have to ask 'which scientist,' because, as many of you know, each scientist has a certain element of anarchy in his heart."

"Now the basic mechanism for the coordination of the—should I say—the very roots that underlie the scientific program in space is related to the National Academy of Sciences. Of course, I'm not going to tell you that all scientists agree on every element of our space program, or opinion—is, I believe, behind this program."

Dr. Berkner's career prior to becoming president of the Graduate Research Center includes being the first chairman of the NAS Space Science Board; member of the first Byrd Antarctic Expedition in 1928; founder of the Geophysical Institute of Alaska; executive secretary of the DOD Research and Development Board, 1946-1947, and membership on numerous scientific advisory boards. He rose to the rank of rear admiral in the US Naval Reserve.

Dr. Berkner touched upon the long productive history in the relations between the National Academy of Sciences and government.

"In its advisory role," said Dr. Berkner, "the Academy owes it to our government to weigh the scientific advances of each period, and to advise to the best of its ability the meeting in the potentialities of these scientific advances. The Academy does this by assembling appropriate groups of experts on any particular topic."

"I remind you of its Space Science Board which has played such an important role in outlining our scientific objectives in space," Dr. Berkner emphasized. "Of course, the government has the right to expect that the Academy will not allow to go unnoticed any potentiality in science that may significantly affect our national posture with respect to our very broad national objectives of world peace and freedom, dignity, and the prosperity of men everywhere."

Dr. Berkner reviewed the beginnings of the national space program as a part of the Academy's planning for the International Geophysical Year, and the resulting Academy recommendations for utilizing the potentialities of orbiting satellites as research tools.

Frustration and Success

"It's astonishing how much we can do in such a short time—a mere ten years. Of course, the deep frustrations in the early part of this program, and the profound successes that have followed, are all burned very deeply in our whole memory," said Dr. Berkner.

"But the point I want to make is that it is the National Academy that has played the central role from a non-governmental posture in recommending the initiation of and providing the broad guidance to major features of our space program—a program that I think we can all agree now commands the respect of the world."

"It was on March 31, 1961 that the Space Science Board recommended to the government the role of men in space," continued Dr. Berkner. "I will quote directly from the document that it transmitted to the President. 'From a scientific standpoint there seems little room for dissent that man's participation in the exploration of the moon and the planets will be essential . . .'."

Quoting his own testimony before the Senate Aeronautical and Space Sciences Committee last year, Dr. Berkner said, "In expending more than five billions annually for our space effort, we have the right to ask rather explicitly what is the rationale that underlies such a major and costly effort?"

Dr. Berkner defended the rationale in his testimony by driving home four major points: "Basically," he said, "no nation of our stature can afford to lag in any technology—to surrender the leadership in that technology freely to others. We need only to be reminded of our despair on October 4, 1957 (launch of *Sputnik I*) to recognize the basic truth of this assertion. No great nation can ignore the need to acquire the innovative dexterity that commands the great technologies of the time . . . Recognition of greatness stems implicitly from the mastery."

"Secondly," continued Dr. Berkner, "to achieve leadership in any major technology, we must have goals—goals like those set by President Kennedy in 1961 to put a man on the moon in this decade—goals that stretch our technological posture as tautly as possible."

"Third—since our nation must command space technology, our interest requires that our space effort be turned to the most effective ends. It would be quite useless, indeed wasteful, to conduct mere space spectaculars without sincere and productive useful objectives. These ends are the scientific exploration of space. Since science cries for the data that space can provide, the results of scientific exploration of space can benefit man and advance his civilization in many ways. So, our goals in space are primarily scientific goals, although they may at the same time challenge the human spirit to the utmost."

Dr. Berkner's fourth point was that "out of this basic national requirement for an intelligent space program at man's technological limit, with its natural scientific goal, the nation reaps many other rewards in the forms of our more advanced dexterity in every aspect of living, in the direction of space applications already evident, and in the challenge to our national spirit."

Impotent Acceptance?

"Would we be happy if some other power were reporting scientific data from space, the moon, or the planets, while we impotently had to take their word for their findings?" he asked his MSC audience.

Dr. Berkner then reviewed the progress for space exploration during the past ten years through the manned space flight program, unmanned satellites and planetary probes, and weather and communications satellites.

"Now, let's look for a moment at just where we are," Dr. Berkner said. "In the course of this operation we have, and are, developing enormous vehicle capability with the Saturn IB and the Saturn V. And, of course, as you all here know, we are now within reach of our lunar objective. Indeed, we're getting to the point where it's almost frightening to realize that you can begin to count in months—less than fifty—the time in which this landing will take place."

"Now certainly there are some very real problems that remain to be solved. But compared to our position ten years ago, in light of our present capabilities, we have an altogether new view of this lunar objective, and we view it with considerable confidence."

Dr. Berkner called attention to the preamble of the National Aeronautics and Space Act of 1958 as exemplifying the goals and responsibilities of the space program. "I must confess," he said, "that it had been some time since I had re-read the provisions of that Act. And in a sense, I came upon it in a new and fresh way, and I found myself very strongly moved by the compelling nature of the basic provisions of this Act, in defining the nature of the goals in space—very wise provisions." Dr. Berkner then read the Preamble to the audience.

MSC Director Dr. Robert R. Gilruth and Dr. Lloyd V. Berkner watch a demonstration in the Crew Systems Division suit laboratory.

"I think the National Aeronautics and Space Administration has a right to be proud of its performance so far in the light of the requirements of this Act. When we read the purposes of the Act we must, in fact, look farther than the moon: to the planets and their satellites."

National Strategy Needed

In outlining post-lunar landing space exploration, Dr. Berkner said, "The very broad strategic objectives for the exploration of the solar system are clearly outlined in the National Academy of Sciences Summer Study that was done last summer . . . It is urgent and imperative that this study be adopted, or something like it, as our major basic strategy beyond the moon. The first job is to adopt a national strategy. This is not just a decision of NASA; it is a decision of the administration, of the Congress, of the American people."

"And second," he continued, "it is urgent and imperative that this study be translated by joint actions of NASA, the National Academy of Sciences and American scientists into specific tactical plans for a specific program with dollars attached to it. For example, in my opinion, it makes little sense to undertake the first Martian landing without some precedent exploratory steps. We must first orbit and map the planet and ascertain where a landing would be profitable.

"To do the planetary exploration job effectively, we now need a tactical program of specific flight on specific dates with the instrumentation necessary to plan to accomplish those tasks. I remind you that what we are doing today was planned in 1961. And yet, when we get to our planetary program in the 1970's, we don't have corresponding specific plans. And, as Max Faget pointed out to me today, the longer flights will require even longer preparation because of their great difficulty."

Dr. Berkner reemphasized the urgency by saying, "If we are to achieve in the planetary exploration of the future in an intelligent way, in light of the objectives of the Space Act, the time has come to get our scientists started now. Your vehicle program is already ahead of us."

Dr. Berkner said that the long-range program should meet certain specifications: 1. step-by-step advancement of experiments in the proper order; 2. use of the right vehicles to carry out the experiments; 3. effective use of Saturn capabilities, from unmanned missions to the ultimate manned landing on Mars and perhaps Venus, and, 4. proper phasing-in of smaller vehicles with the larger ones, and reasonable time/cost programming.

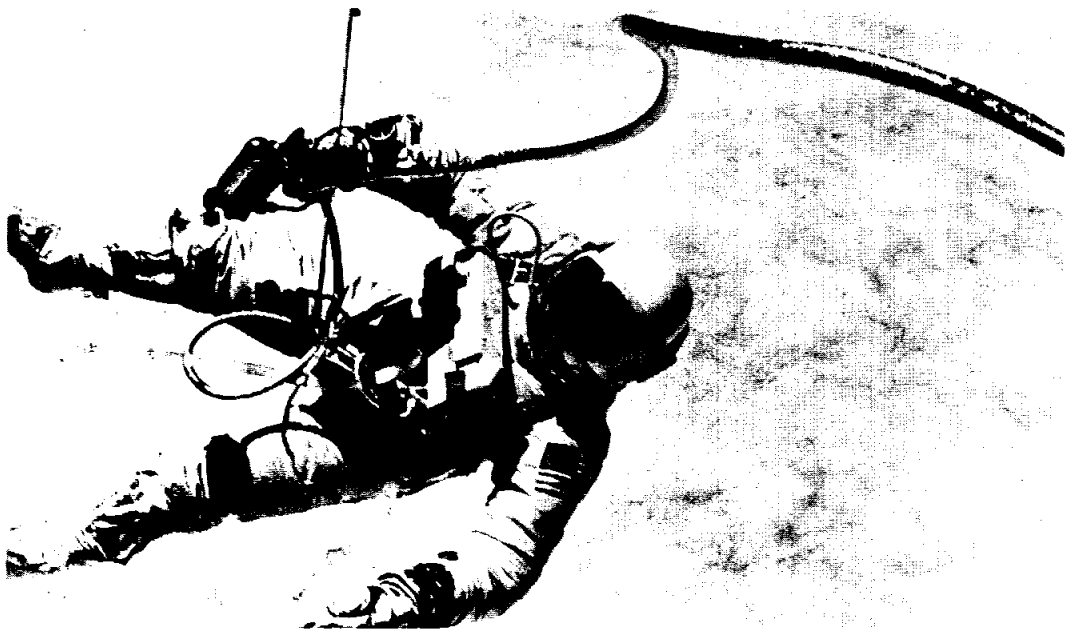
Dr. Berkner closed by saying that "all of us have got to get together and get on with this job. With advanced vehicular capabilities we just can't wait until the last minute and expect to get good scientific capabilities on command. This job is so tough that it is conceivable that we could get behind and we could fail . . . One of the elements of the Preamble of the Space Act is to maintain the leadership of the United States in space technology. But beyond this responsibility cost-effectiveness requires that we identify our scientific objectives in the right tactical order, assigned to the right vehicles and get the job done by the best scientists that we can find."

Preamble

National Aeronautics and Space Act of 1958

The aeronautical and space activities of the United States shall be conducted so as to contribute materially to one or more of the following objectives:

- *The expansion of human knowledge of phenomena in the atmosphere and in space.*
- *The improvement of the usefulness, performance, speed, safety and efficiency of aeronautical and space vehicles.*
- *The development and operation of vehicles capable of conveying instruments, equipment, supplies and living organisms through space.*
- *The establishment of long-range studies of the potential benefits to be gained from the opportunities for and the problems involved in the utilization of aeronautical and space activities for peaceful and scientific purposes.*
- *The preservation of the role of the United States as a leader in the aeronautical and space science technology and in the application thereof and the conduct of peaceful activities within and outside the atmosphere.*
- *The making available to agencies directly concerned with the national defense discoveries that have military value or significance and the furnishing by such agencies to the civilian agency established to direct and control nonmilitary aeronautical space activities information as to the discoveries which have value of significance to that agency.*
- *Cooperation by the United States with other nations and groups of nations in work done pursuant to this Act in the peaceful applications of the results thereof. And finally,*
- *The most effect utilization of the scientific and engineering resources of the United States with close cooperation among all interested agencies in the United States in order to avoid unnecessary duplication of effort, facilities, or equipment.*



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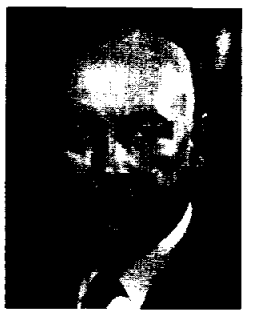

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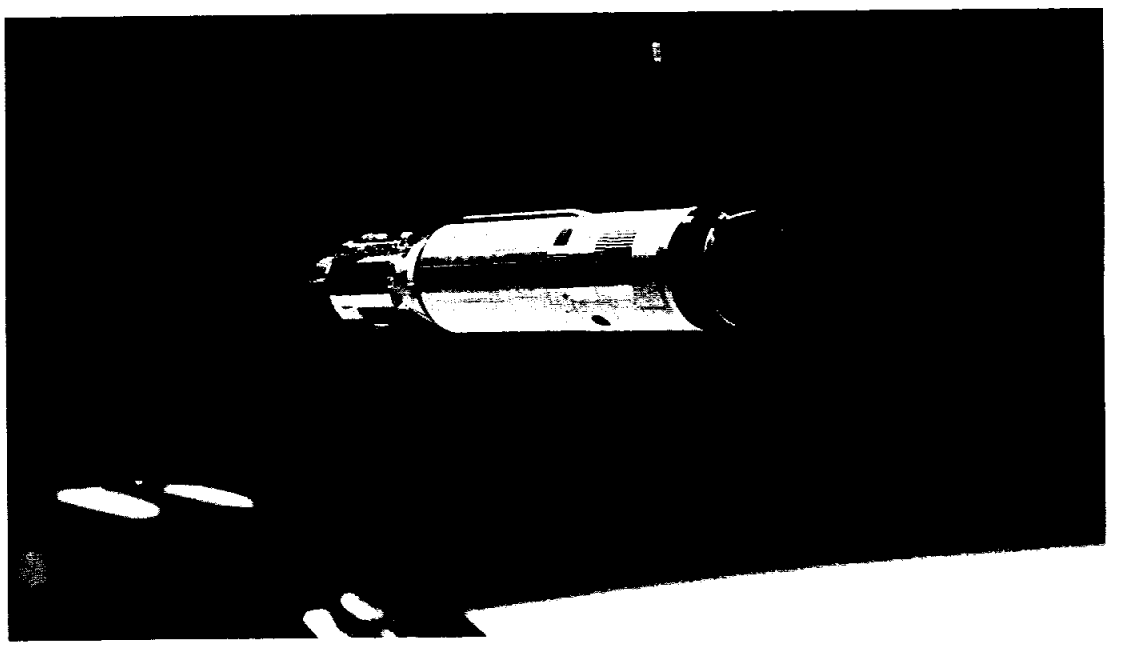

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PERATIONS
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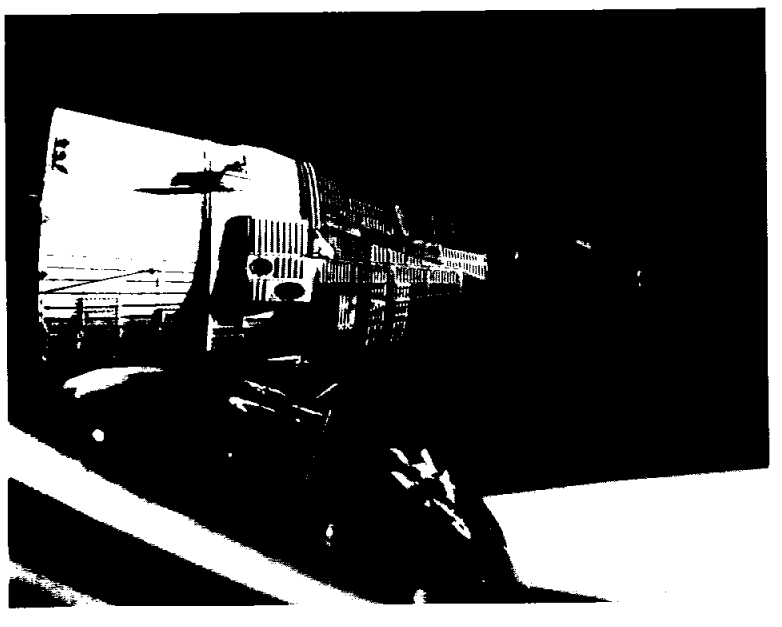

STOP!

STOP THE WASTENIK IN HIS TRACKS!
EXTERMINATION IS IN ORDER

Space News Of Five Years Ago

May 27, 1961—Dr. Lloyd V. Berkner, chairman of the Space Sciences Board of the National Academy of Sciences, stated: "Since, as space activity becomes more difficult and advanced, the space effort will be limited by our knowledge of space at any time, leadership in space science must soon become one of the controlling factors in acquiring space leadership generally." Berkner spoke at the first National Conference on the Peaceful Uses of Space held at Tulsa, Okla.

May 30, 1961—USSR revealed first details of Cosmonaut Gagarin's orbital space flight on April 12, when application was made to the *Federation Aeronautique Internationale* to have flight made an official world's record: Duration, 108 minutes, maximum altitude, 203 miles; launch site, cosmodrome at Baikonur (near Lake Aral); landing site, near village of Smelovka in Seratov region; launch booster, six-engine rocket with 20-million horsepower total.

June 3, 1961 — A leading Istanbul newspaper, *Milliyet*, reported Turkish newsmen's reactions after seeing movies of both the Shepard and Gagarin space flights: "When the film was over the journalists asked the Soviet consul general: 'In the Shepard film we followed all phases of his space flight, but in yours we followed only Khrushchev . . . Why don't you show your space flight, too?' The Tass correspondent on behalf of the consul general answered: ' . . . We are mainly interested in people's excitement and reaction. This is what we wanted you to see.' Gagarin may have gone into space, but this is not the impression of the journalists who saw both films: Shepard really went into space, not Gagarin, and in front of the whole world, too."

June 6, 1961—Biomedical results of Mercury-Redstone space flight of Alan B. Shepard, Jr. publicly reported at a special conference in Washington sponsored by NASA, National Institute of Health and the National Academy of Sciences. Shepard's heart reached a maximum of 138 beats per minute during the flight.

June 8, 1961—NASA announced accelerated recruiting of qualified scientists and engineers at its field centers to fill anticipated manpower requirements in the expanded space exploration program. During 1960 NASA interviewed 3,000 persons on 100 college campuses.

June 9, 1961—NASA press conference revealed that data from Vanguard III (during November 15-17, 1960) and Explorer VIII (also during November 1960) indicated that high-velocity clouds of micrometeorites moved near the earth, perhaps in a meteor stream around the sun.

Unclaimed Items Still Seek Owners

Two months ago, the *Roundup* published a list of small personal items which had been accumulated by the Security Branch. Several of these items have been reclaimed, but the bulk of the material is still being retained by Security, including such things as a camera, exposure meter, watches, keys and glasses.

The Security Branch has advised that any of the items maintained over one year which are not claimed within two weeks will be disposed of.

OUT OF TEXAS' PAST—

Ruffled French Diplomat Caused 1840 Texas Coast Invasion Scare

Nowhere in the history of international diplomacy is there an incident more fantastic than the cold war between France and the Republic of Texas in 1840. A 37-million-franc loan was influenced by the ridiculous affair, and for a time there actually was talk of armed conflict between the Lily and the Lone Star!

Jean Pierre Isidore Alphonse Dubois, Comte de Saligny, *charge d'affaires* to Texas for the court of Louis Philippe, first arrived in Austin in January of 1840. An arrogant little man, he wore a chest loaded with decorations when he was presented to the national hero, Congressman Sam Houston. Not to be outdone by the count's salad, Houston bared his battle-scarred chest.

"M. le comte, an humble republican soldier, who wears his decorations here, salutes you!"

President Lamar, who hoped to borrow a million dollars from France, presented Saligny—who was the French finance minister's brother-in-law—to the Texas Senate. That night, in his room at Bullock's Hotel, Saligny was awakened by an Indian raid in which two Austin residents were scalped.

Despite his apprehensions about the stability of the frontier republic, Saligny built himself a pleasant cottage of Bastrop pine in the national capital. The restored house still stands in Austin and for some reason—probably just normal Texas hyperbole—is touted to tourists as "the French Embassy."

But the count never fully satisfied Dick Bullock's demands for payment for lodging. Then some of the inkeeper's pigs strayed into the legation grounds, destroyed some flowers and ate some corn in a stable. One of Saligny's servants killed one of the pigs, and Bullock beat up the servant. Finally the belligerent boniface literally kicked the Frenchman out of the hotel when the latter came to call on the United States minister.

Saligny indignantly demanded redress from the Texas government.

As for the other side of the controversy, there was evidence that the count had circulated several hundred dollars' worth of counterfeit Texas redbacks which the Austin government had redeemed in the interest of good Franco-Texan relations. Saligny had tried (and had been partially successful) to influence Texas legislation. He freely criticized the government (not entirely without justification) in the most undiplomatic language. And he had a reputation—which may have been undeserved—as a deadbeat.

President Lamar, who handled his own foreign relations, declined to punish Bullock without due process. Saligny, disdaining to testify in a Texas court, demanded his passport. In an outraged note to the Texas state department he warned that henceforth his government would be represented in Texas by the royal navy.

The count tarried in Galveston, seeking to embarrass Britain's attempt to mediate the perennial hostilities between Texas and Mexico. Then he proceeded to New Orleans. Meanwhile the Texas legation in Paris reported that a squadron of French mean-of-war was fitting out for the coast of Texas. New Orleans, Galveston and Houston newspapers warned of an invasion.

The situation appeared critical. The Texas navy's heavy ships had been decommissioned in the interest of economy, and Lamar was desperately trying to raise some revenue by leasing two armed schooners to the rebellious Mexican province of Yucatan.

War rumors rocked Texas. One said a French squadron was anchored off Martinique. Another said twenty French war vessels had been sighted off Pensacola. In New Orleans, Saligny declared that a French invasion fleet was standing by for his order to attack the Texas coast. Lamar ordered the navy reactivated.

The situation was preposterous. There was nothing to attack on the Texas coast—except coyotes. And the "citizen king" of France had plenty of headaches at home. The net result of *l'affaire* Saligny was that Texas blew the French loan. Sam Houston was reelected, and hostilities with Mexico were resumed, despite the continuing financial crisis. It was becoming increasingly clear that the only thing that could save Texas from fiscal ruin was annexation by the United States.

—Sigman Byrd

The SPACE NEWS ROUNDUP, an official publication of the Manned Spacecraft Center, National Aeronautics and Space Administration, Houston, Texas, is published for MSC personnel by the Public Affairs Office.

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Public Affairs Officer . . . . . Paul Haney
Editor . . . . . Terry White
Staff Photographer . . . . . A. "Pat" Patnesky

Extravehicular Stamps

NEW ISSUE—Gemini IV pilot Edward White holds several postal covers upon which are special stamps issued by the Republic of Nigeria commemorating man's achievements in space flight. The Nigerian stamp used an illustration of Ed White's Gemini IV extravehicular activity to typify these achievements.

MSC's Scubanauts

INNER-SPACE EXPLORERS—Members of the MSC Lunarfins skin and Scuba diving club are shown preparing for a dive into Canyon Lake near New Braunfels (top photo). In the center photo, Hugh Scott prowls the depths of the lake *a la* Lloyd Bridges. Two fish pose warily for the camera in the lower photo. The Lunarfins plan a return trip this weekend to the New Braunfels area to further explore underwater caverns and natural artesian wells.

Employee Earns Annual Leave By Service Length

A NASA employee earns annual leave, or time off with pay for vacation and other purposes, on a graduated scale based on creditable length of Federal civilian and military service. During the first 3 years of service, 13 working days or 4 hours every 2 weeks are earned. Those with 3 to 15 years of service earn 20 working days or 6 hours every 2 weeks and those with 15 or more earn 26 days a year or 8 hours every 2 weeks. Annual leave remaining to the individual's credit at the end of the leave year may be accumulated for later use up to a limit of 30 days.

To become qualified to earn annual leave, a new employee must be employed for 90 calendar days without a break in service. A break in service is 1 day or more when the employee is not on the Government's employment rolls. Any absence during this 90-day period will be without pay unless the absence is due to illness for which accrued sick leave is granted. After an employee has worked the 90-day period, his leave credits will be restored retroactively for each payday included in that period. An employee should always request annual leave from his supervisor in advance.

Thirteen days of sick leave a year, or 4 hours for each biweekly pay period, are earned by all employees regardless of length of service. Unused sick leave is accumulated and remains to the employee's credit indefinitely. There is no restriction on the amount that may be accumulated.

An employee may be granted leave without pay in an emergency or under exceptional circumstances.

More detailed information regarding leave is contained in MSC Management Manual Instruction 17-10-1.

Space News ROUNDUP!

MANNED SPACECRAFT CENTER, HOUSTON, TEXAS

EMPLOYEE NEWS

Back from the Underworld

RECOVERY OPERATION—Four small ducklings must have thought their lives had gone down the drain when they tumbled into a drain tunnel near Building 12 last week. David L. Elmore hands the last of the ducklings up to William Hensley. Three of the feathered critters survived the ordeal; the fourth was a fatality.

1966 MSC/EAFB Fast-Pitch Softball League

American Division	National Division
1. TRW	11. Lockheed Electronics
2. IBM/RTCC	12. McDonnell Aircraft
3. Lonestars (ASTD)	13. NAA
4. Link	14. Brown & Root
5. Graham	15. Hustlers (Comp & Anal)
6. IESD/LEC	16. MSC/Pyros
7. MSC/AF MOLS	17. Weather
8. FCD	18. IESD
9. Philco/WDL	19. CG/Houston
10. 747th Rams	20. 2578th

All games are played on EAFB Diamond No. 1. Game times are at 6 and 8 pm. Teams are listed in schedule by numbers assigned above.

May 30	May 31	June 1	June 2	June 3
20 vs 16	12 vs 15	13 vs 14	11 vs 18	19 vs 17
10 vs 6	2 vs 5	3 vs 4	1 vs 8	9 vs 7
June 6	June 7	June 8	June 9	June 10
7 vs 10	6 vs 2	8 vs 9	3 vs 5	4 vs 1
17 vs 20	16 vs 12	18 vs 19	13 vs 15	14 vs 11

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

1959 Hillman Minx deluxe station wagon, 81,500 miles, runs well, new valve job, $150. 1963 Falcon deluxe station wagon, air conditioned, tinted glass, padded dash and visors, seatbelts, whitewalls, 35,500 miles. Book value $1175: sell for $1100. Dr. Howard Minners, 932-2417.

3-bedroom, 2-bath brick house, air conditioned, fenced, landscaped, in Swan Lagoon. $22,500 or equity plus assume $142/month payments. Dr. Howard Minners, 932-2417.

Lotus 7 spares for many engines. Pair of 1½" SU carbs, Volvo w/ford-Lotus manifolds and linkage $35. (Healey, TR, etc) Coxworth A-111 billet cam $40. Stock Anglia 105-E gearbox $35 complete. Jon Farbman, WA 6-7192 or RI 7-3435.

1959 Karmann Ghia, Blaupunkt AM/FM radio, reclining seat, headrest, newly painted, xclnt condition. 28 miles/gallon. Michael Ballas, GA 1-1595.

Walnut dining table, buffet, four chairs, $50. Mahogany end table $15. Mahogany coffee table $10. Chest of drawers $8. Pair of lamps $20. Ann Landry, MO 7-4615.

AKC-registered white female German Shepard, three months old, shots, wormed, $50. Lee Adams, OR 4-3797.

1964 white VW, radio, 40,000 miles, one owner, good condition, $1150. Richard R. Baldwin, MI 4-5061 after 6 pm.

Minolta SR-1 35mm single-lens reflex camera, 55mm f/1.8 lens, light meter, carrying case, manual. Best offer over $45. Mel Feldman, HU 8-1270, Ext. 275.

3 bdr 2-bath French provincial overlooking Bay, 10 minutes to MSC, formal dining room, fireplace, intercom, dishwasher, disposal, central air/heat, 2800 sq ft, carpet and drapes, 2-car garage. $26,000 mortgage commitment for buyer who can qualify. Don Lewis, GA 1-4397.

AKC-registered toy male poodle, apricot, 6-months old, champ line, or will breed. Mrs. Robin, HU 8-2304.

3 bdr 2-bath brick, central air, 2-car garage, fenced, one mile from MSC. $23,000 or equity and assume mortgage. John Kicinski, 877-1869.

CAR POOLS

Want to join or form car pool from Dickinson to MSC, 8:30 to 5 shift. Carl D. Scott, 534-2627.

Additional driver wanted for existing 2-person car pool from Sagemont (Sec I & II) to Bldg. 2, 8:30 shift. Bob Sampson, HU 7-2716.

Ride or riders from Bissonnet area, 8:30-5 shift. Leslie Malicote, JA 3-1813.

Bridge Club Schedules Champ Tourney June 14

Winners at the MSC Duplicate Bridge Club Master Point on April 26 were North-South: Sue Shrader and Emer St. Leger tied with Esther and Bob Wake for first. East-West: Bob Hodgson and Leona Kempainen, first; Floyd Goostree and Arthur Carlson, second.

At the special Charity Master Point game on May 10, the North-South winners were P. Meyden and Fred Walser, first; Fuad Tawil and Alice Gowdey, second; East-West: Tom Holt and John Herrmann, first; Bill Hamby and Clarke Hackler, second.

On June 14, the club will hold an Individual Championship tournament at which master points and a trophy will be awarded.

1966 MSC/EAFB Slow-Pitch Softball League

American Division	National Division
1. TSD All Stars	13. SMD Moonrakers
2. LRD	14. IBM
3. TRW OGOS	15. CSD
4. FSD Batmen	16. Univac
5. MPAD/FAB	17. FSD Dirty Sox
6. APSO Lunartics	18. RMD Plus
7. IESD Misfits	19. P&PD Hustlers
8. Security Mets	20. SSD
9. Pro & Con	21. TSD Virginians
10. MPAD Animals	22. MPAD/RAB
11. FCSD	23. Lockheed Operators
12. GE	24. CG/EAFB

All games are played on EAFB Diamond No. 3. Game times are 6, 7:30 and 9 pm. Teams are listed in schedule by numbers assigned above.

May 30	May 31	June 1	June 2
8 vs 2	7 vs 3	20 vs 14	19 vs 15
9 vs 12	6 vs 4	21 vs 24	18 vs 16
10 vs 11	1 vs 5	22 vs 23	13 vs 17
June 6	June 7	June 8	June 9
4 vs 5	12 vs 8	16 vs 17	24 vs 20
3 vs 6	10 vs 1	15 vs 18	22 vs 13
2 vs 7	11 vs 9	14 vs 19	23 vs 21

MSC Offers Summer Internships To 54 Top Graduate Students

Outstanding graduate students from 38 universities and colleges have been offered the opportunity to study and work this summer in the MSC Aerospace Summer Intern Program. Internships have been offered 54 students majoring in science, engineering and public and business administration.

Each student must be highly recommended by their deans and department heads and must have maintained a 3.5 or B+ grade average during their college work. The group offered MSC internships represents 15 major academic disciplines, including astronautics, physiology, engineering, physics, mathematics, and public and business administration.

Engineering and science majors will have the opportunity to take part in an extensive seminar program in the engineering and design of manned spacecraft, while administrative majors will attend a graduate-level seminar program covering major administrative and management topics.

This fourth consecutive MSC Aerospace Summer Intern Program allows students to gain practical experience in areas related to their college studies. A second major objective of the Intern Program, according to MSC Director Dr. Robert Gilruth, is that of strengthening relationships and communications between MSC and the nation's colleges and universities.

Technical Summer Internships were offered to the following students:

Stanley Gershwin, Columbia University; Harleston E. Cabaniss, Georgia Institute of Technology; John Bankovskis, University of Cincinnati; Harald Portig, University of Texas; Mark Salita, Pennsylvania State University, and Alexander W. Young, University of Delaware.

Victor K. Chan, University of California; Suzanne R. Jaax, and James R. Jaax both of Kansas State University; William L. Wilson, Rice University; Benjamin W. Day, Dartmouth College; Robert C. Mers, University of Illinois; James A. Weber, Purdue University; and Milton A. Wiltse, University of Indiana.

Jo Ann C. Joselyn, University of Colorado; William L. Hogan, Cleveland State University; Emmett G. Ward, University of Houston; Rene A. DeHon, Texas Technological College; William V. Weiss, University of Toronto; Charles A. Pilcher, University of Washington; Stephen R. Miller, University of Indiana; and Edward S. Bocian, Carnegie Institute of Technology.

James V. Carrol, Massachusetts Institute of Technology; Richard E. Hunter, Columbia University; Robert D. Hellweg, Jr., University of Illinois; Dennis Luckinbill, Oklahoma State University; Michael H. Heinz, Notre Dame University; Clyde A. McMahan, Louisiana State University; and Frederic H. Howard, Notre Dame University.

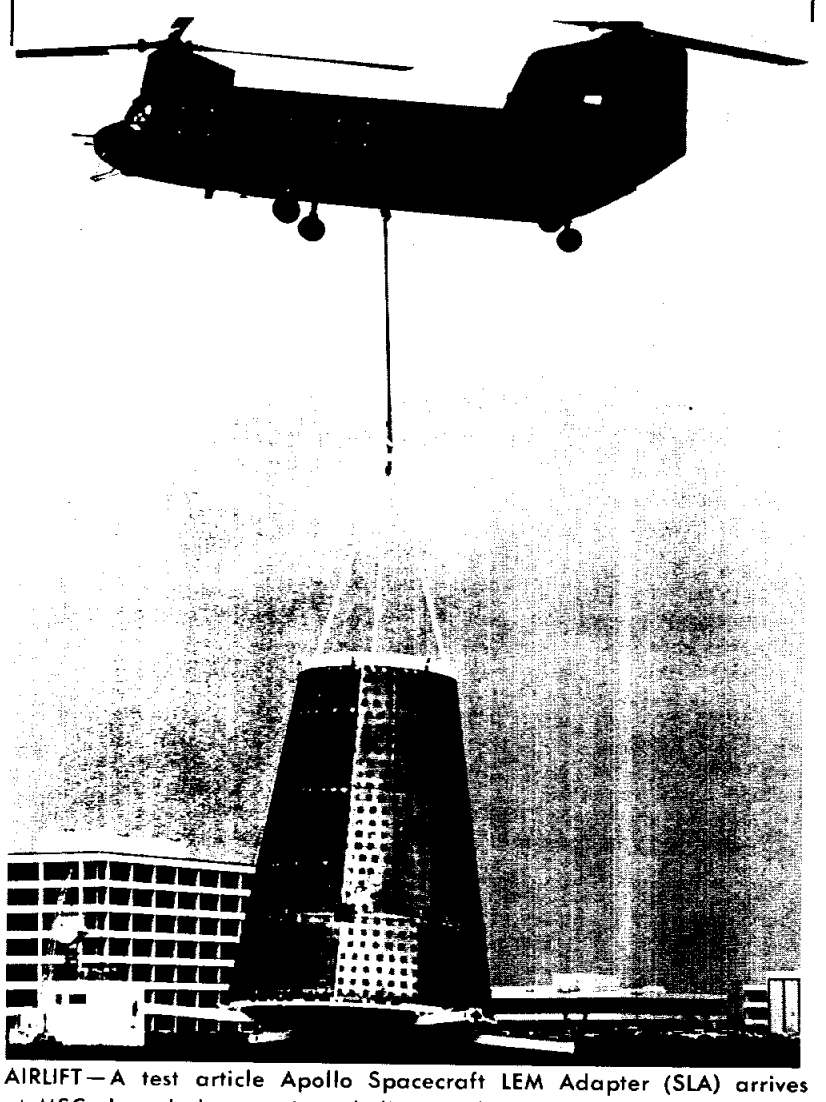
Glyn K. Romrell, Utah State University; Horace V. Smith, Jr., University of Texas; Ronald J. Pogorezelski, California Institute of Technology; Ronald H. Sones and Larry A. Spitzberg, both of Rensselaer Polytechnic Institute.

Administrative Summer Internships were offered to the following students:

Lawrence Rinderknecht, New York State University; Robert D. Fluss, University of Illinois; Joseph Hilderbrandt, University of Wisconsin; Robert W. Joselyn, University of Colorado; James F. Kurtz, Pennsylvania State University; and Lillian Hobson, Howard University.

Sheridan Johnson, University of Minnesota; Mary A. Sudol, Syracuse University; William K. Daugherty, University of Texas; Michael S. Weinberger, University of Michigan; Stanton Calvert, University of Texas; Maxie D. Higgs, Lamar State College of Technology; Thomas W. Vinson, University of Southern California; Stephen G. Welch, San Diego State College; and Robert B. Denhardt, University of Kentucky.

Cross-Country Yo-Yo



AIRLIFT—A test article Apollo Spacecraft LEM Adapter (SLA) arrives at MSC slung below an Army helicopter from NAA-Tulsa. The SLA will undergo a series of vibration and acoustics tests at MSC in conjunction with other Apollo spacecraft modules and a Saturn IB instrument unit.

Gemini IX

(Continued from page 1)

set for 9 am CST, with the Gemini IX to follow 99 minutes later. The ATDA will be launched into a 161 nm circular orbit.

Existing Components

The ATDA was developed from existing qualified Gemini hardware and includes an Agena nose shroud, target docking adapter, Gemini Reentry Control Section (RCS), Gemini orbital attitude and maneuvering electronics, Gemini digital command system and Gemini electrical system components, and an Agena/Atlas adapter. The RCS module used on the ATDA was "borrowed" from Gemini spacecraft VI.

The only new portion of the ATDA is the structure housing the above-named components. Launch weight of the ATDA is 2,400 pounds, and orbital weight is 1700 pounds.

Lacking a propulsion system, the ATDA may not permit all of the rendezvous and docking activities planned for the original Gemini IX Agena which involved Agena maneuvers, but use of the ATDA will not affect plans for Gemini IX pilot Gene Cernan's extravehicular activity.

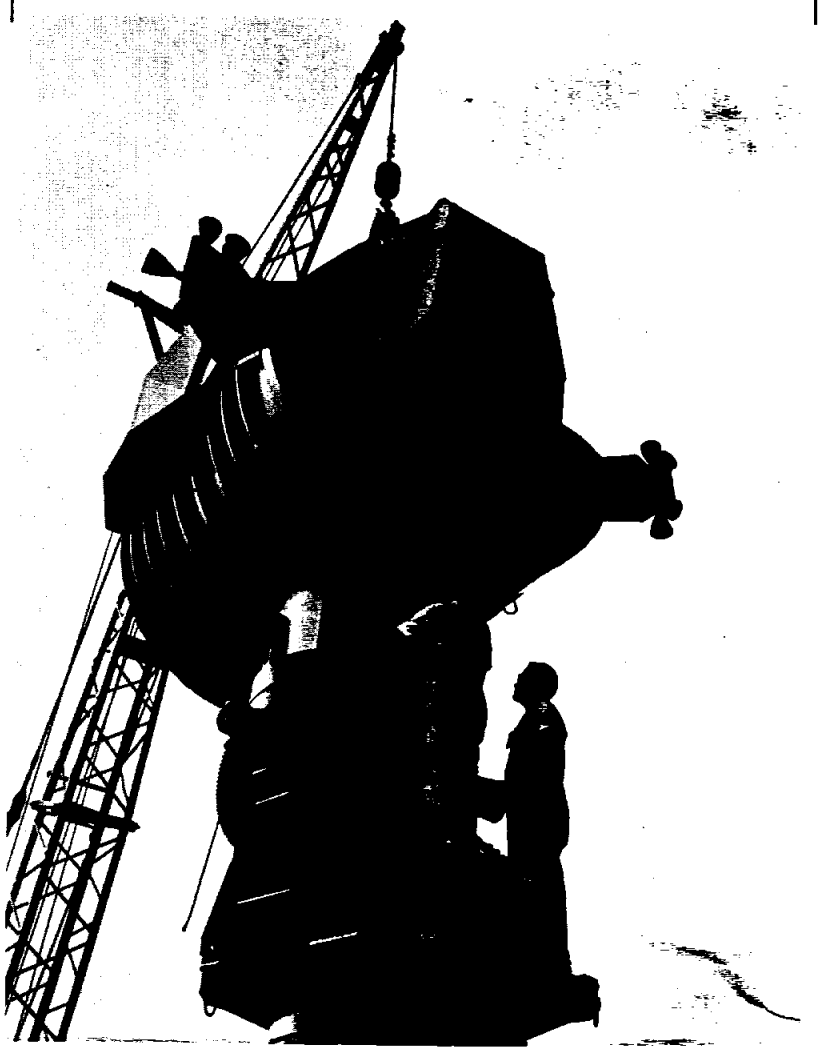
Attitude control of the ATDA will be provided by the RCS module driven by an automatic rate stabilization system.

McDonnell Aircraft Corporation, under a supplemental agreement to the basic Gemini contract, built the ATDA. GD/Convair and USAF Space Systems Division are integration contractors, while guidance and ATDA guidance and reference trajectories are furnished by Thompson-Ramo-Wooldridge.

Space News ROUNDUP!

SECOND FRONT PAGE

LEM On A Swivel



RADAR TESTS—LEM Test Module 7, a full-scale ascent stage mockup, is mounted on a three-axis positioner atop the Instrumentation and Electronic Systems Division's Boresight Range Control Building (Bldg. 14B) for boresighting of the LEM's rendezvous radar.

Saturn V Test Vehicle Moves To Launch Pad

A 365-foot tall Apollo/Saturn V Lunar launch vehicle was picked up from its assembly site and carried 3.5 miles to the launch pad May 25 just five years after the late President Kennedy set the goal of sending American astronauts to the moon by the end of this decade.

This test vehicle designated the Apollo Saturn 500-F will never make the journey to the moon, however. It is being used to verify launch facilities, train launch crews and develop test and checkout procedures. The first flight vehicle is scheduled to arrive later this year.

Following the procedures which will be used during preparation for the actual lunar launch, the 500-F was assembled on a mobile launcher in the Vehicle Assembly Building at the John F. Kennedy Space Center. Assembly and checkout in the VAB began late in March 1966.

A 3000-ton crawler moved under the mobile launcher and lifted the launcher and the assembled rocket off its support pedestals. The combined weight of the launcher and space vehicle is almost 6000 tons. The journey to the launch pad began about 9:00 a.m.

In a short ceremony before the event, Dr. George Mueller, Associate Administrator for Manned Space Flight; Dr. Wernher von Braun, Director of Marshall Space Flight Center; Dr. Robert R. Gilruth, Director of the Manned Spacecraft Center; and Dr. Kurt H. Debus, Director of the Kennedy Space Center, spoke briefly. Master of ceremonies was Albert F. Siepert, Deputy Director of Kennedy Space Center. Colonel Rocco A. Petrone, Director, Plans, Programs and Resources, of Kennedy Space Center explained the functions of the 500-F vehicle.

Swim Lessons Offered

Beginners' swimming lessons will be offered at the Tropicana Swim Club, 5920 Telephone Road, Houston, for MSC employees, their families, and MSC contractors.

The class will be taught by Evelyn Huvar, a qualified Red Cross Water Safety Instructor, beginning the second week in June. To register for the class or for additional information, contact Evelyn Huvar, extension 4543.