Parking Lots, Road Net Will Help MSC Traffic

Two of MSC’s major non-scientific problems — traffic and parking — will be on the road to at least partial solution before the end of this year, according to Center officials.

The Center is now planning a series of connector roads to join a network of public roads approaching the area where voters recently approved the construction of a new town. The public road network will be concentrated near the Gulf Freeway, off the west end of Highway 146 and Highway 317, near the Fire Station.

According to Center officials, in the MSC-Clear before the end of this year, partial relief to congested traffic and parking . . . will be on the planned for completion in the spring of 1967. This will offer partial relief to congested traffic in the MSC-Clear Lake area.

The schedule for completion of Bayshore Boulevard (four lanes) from the Gulf Freeway to Highway 3 and the balance from Highway 3 to Highway 146 has not been finalized. The Bayshore-Gulf Freeway interchange is included in a general state improvement of the Gulf Freeway system.

Early construction is planned for the four lane county improvement on Red Bluff Road, from Spencer Highway to the intersection with Bayshore Boulevard. This and Kirby Road improvements were included in the county bond issue approved last month.

The connector roads to Bayshore Boulevard and some of the internal street network are planned for completion late this year . . . the same schedule planned for the initial two-lane segment of Bayshore Boulevard.

Bids on the new on-site parking lots are scheduled for opening April 21 with the construction contract to be awarded the following week. All but one of the lots are scheduled for completion by the end of August. Parking lot E, near the Fire Station, will have a capacity of 450 vehicles. The planned parking lots will provide parking for an additional 1,742 vehicles. These additional parking lots will eliminate the necessity of Bayshore Boulevard improvements and substantially reduce street parking.

Family-Type Symposium Draws Large Turnout

The first MSC Technical Symposium with a family flavor played to an almost full house March 28 in the MSC Auditorium. Crew Systems Division presented the program to which wives and children of MSC employees were invited.

Except for a brief break during the meeting, it is anticipated that all future MSC Technical Symposiums will be slanted for enjoyment by the whole family, but without becoming so basic that they diminish in value to engineers. Also, family-type programs allow the younger to gain a better idea of what Dad’s work is.

The program, date and time for the next MSC Technical Symposium will be announced prior to the April 29 Roundup.

Corbtight Speaks To AIAA May 2

Edgar M. Corbtight, Deputy Associate Administrator of the Office of Space Science and Applications, will be the featured speaker at the May 2 meeting of the Houston Chapter of the American Institute of Aeronautics and Astronautics.

The meeting will be at the Holiday Inn on NASA Road 1, with cocktails at 6 p.m. and dinner at 7 p.m. and the program at 8 p.m. Complete details of the program will appear in the April 29 Roundup.

The Big Lift

Spacecraft Gemini IX this week was electrically mated to its launch vehicle and preparations began for electrical interference testing. Fuel cells were installed April 5 in the spacecraft equipment adapter.

To offset a recurrence of the thruster problem encountered during Gemini VIII which was caused by a short circuit in the Orbit Attitude and Maneuvering System (OAMS) wiring, the Gemini IX spacecraft has been modified. Modifications consist of installation of a master switch between the electrical power bus and OAMS circuit breakers. The change will allow rapid in-flight troubleshooting of thruster problems before spacecraft tumble rates have built up. All subsequent Gemini spacecraft will incorporate the new master switch in their OAMS power circuitry.

Gemini IX’s rendezvous vehicle, Agency 5004, will be mated with the Atlas Standard Launch Vehicle in the near future. The Atlas last week was erected in Launch Complex 14.

Testing of modifications to the Agency primary propulsion system at the USAF Arnold Air Engineering Center, Tullahoma, Tenn., is complete. Completion of the test series has raised the Gemini Program Office confidence level that the source of the Gemini VI Agena’s hard-start last October 25 has been identified and corrected.

In the last series of tests at Tullahoma, a hard-start was deliberately induced by duplicating the original Agena propellant feed sequence wherein fuel preceded the oxidizer into the engine combustion chamber. As modified, the sequence now injects oxidizer into the combustion chamber ahead of the fuel. Engine start tests incorporating the modification at temperatures as low as -10°F were run with no problems.

Boosting the Booster — The first stage booster for the Apollo/Saturn 202 mission is hoisted into position on Launch Complex 34. A/S 202 will be the third developmental flight of the Saturn IB and the area outset of production Apollo command and service modules. The mission, now rescheduled to follow A/S 203, will further verify CSM systems and command module ablative heatshielding.

I HAVE JUST THE PLACE TO HANG THAT — Gemini Program Office Manager Charles W. Mathews, right, receives the National Space Club’s Astronautics Engineer Award from OMSF Deputy Associate Administrator James Elms. Elms accepted the award on behalf of Mathews at the Club’s Ninth Annual Awards Dinner in Washington March 16. The award was made for Mathews’ "outstanding technical contributions to the Mercury and Gemini programs." Mathews was unable to accept the prize in person since the dinner was on the evening of the Gemini VIII launch.
USNS Kingsport Ends Network Service Job

The Grand Old Lady of Space Communications is ending her service with NASA.

The USNS Kingsport, first ocean link in America's research in communications by satellite and the ship which relayed western Pacific voice contact with Gemini VIII, has finished her job and will now be retired from NASA's networks.

It was Kingsport which relayed voice reports from Astronauts Armstrong and Scott that the mission was successful and the crew had undocked from the Agana.

From Gemini high over the Pacific Ocean, the astronaut's voice and spacecraft telemetry beamed to the instrumentation ship Coastal Sentry north of the Philippines represent the transmission to the Kingsport stationed nearby.

The Kingsport headed the signal on Syncom III orbiting 22,300 miles overhead. The satellite instantaneously relayed the transmission down to Hawaii.

Federal Employee Not Exempt From Citizen's Obligation

The term "Hatch Act" may at first glance appear to be some facet of maritime law. Actually it is an act of Congress which prohibits Federal employees from holding candidates for office in partisan elections and from taking an active part in partisan political management or campaigns. Moreover, the Texas Constitution restricts certain Federal employees from holding state or local government offices. 

Legislated restrictions on political activity should not be construed as relieving Federal employees of their obligations as citizens to keep themselves informed on issues, to register and to vote. Nor does it gag expressions of their personal political opinions.

Golfer Group Finishes First Tournament Series

First-round play has been completed in the MSC Golf Association's two-man team, low-ball, match play and elimination competitions. The first monthly medal play tournament is now history, and many of the round-robin medal play matches have been played.

In the first medal play tournament April 2 Bill Shoupshire won the A Division (21-18 handicap) and Bill Johnson topped the B Division (19-16 handicap).

"This year's Golf Association is off to a great start," said John Jones, "and should provide lots of fun for all our members."

Interested golfers who have not joined the Association still have time to become eligible for the individual match play elimination competition scheduled to start in July. Association membership also makes one eligible for the monthly medal play tournaments.

To sign up, call Jones at 4316.

from which cable and land line circuits continued to NACOM communications center at the Goddard Space Flight Center, Greenbelt, Md., and thence to Mission Control at Houston.

Her job completed, the Kingsport will find new assignments by the Department of Defense where studies are now being made for her use.

She gave the world's first demonstration of communications by a satellite in synchronizing orbit. This was in July, 1963, through Syncom II over a 45,000-mile loop from Kingsport to Syncom and back to Kingsport at anchor in Lagos harbor, Nigeria.

She was part of the first exchange of radio messages via satellite between North America and Africa a few days later, linking the terminal at Lakehurst, N.J., with land circuits at Lagos.

She was built in Los Angeles in 1944, at the California Shipbuilding Corp., destined for Army Transport Service. With 11,000 tons displacement, she was a big craft of 455 feet overall and 62-foot beam. She was a Victory ship (VC-2), tagged TAG-164.

Eleven years later—she was now 16—she was chosen by the Bureau of Ships to be the Navy's first communications satellite ship.

And so the Kingsport came of age. She went to Portland, Ore. for structural modifications by the Williamette Iron and Steel Co. She sailed to Philadelphia where the Naval Shipyard installed electronics to convert her for communications.

Principal feature of her new look was a 30-foot diameter parabolic "dish" antenna within a 34-foot radome which filled her afterdeck like a gigantic toadstool towering some 80 feet above the waterline. This was the antenna with which she was to control, guide and communicate with satellites up to 25,000 miles above the earth.
Six MSC People Get Astronautical Awards

The American Astronautical Society next month will present the Society's highest awards to six MSC people and three others will be named Fellows of the Society.

Richard S. Johnston, Chief Crew Systems Division, will receive the AAS Victor A. Prather Award which is presented each year to the person whose research efforts have contributed the most to the field of extravehicular protection in space.

Johnston's Division developed the EVA pressure suit, umbilical line and the Emergency Life Support System used by Ed White during the Gemini IV extravehicular activity. The Division is currently developing similar equipment for use in remaining Gemini extravehicular missions and for Apollo lunar-surface exploration.

Dr. Charles A. Berry, Chief of the Center Medical Programs, will receive the Melbourne W. Boynton Award, presented annually by the Society to the physician performing the most outstanding research contributing to space flight.

The AAS Flight Achievement Award for 1965 will go to Walter M. Schirra, Thomas P. Stafford, Frank Borman and James A. Lovell for the Gemini VII/VI rendezvous flight. The Award is made to those whom the Society feels have contributed most to the advancement of manned space flight.

MSC people being named Society Fellows are Dr. Helmut Heinrich, parachute specialist and professor of aeronautical engineering at the University of Minnesota.

A national symposium on aerodynamic deceleration will be conducted by the committee in Houston September 7-9.

Kiker Named To AIAA Committee

John W. Kiker, chief of the Landing Technology Branch, Structures and Mechanics Division, this month was named to the newly-formed American Institute of Aeronautics and Astronautics Committee on Aerodynamic Deceleration Systems. The Committee, chaired by Earl C. Myers, technical director of the USAF 6511th Parachute Test Group, El Centro, Calif., includes among its 22 members many pioneers in the field of parachutes, balloons, ballutes and paragliders. Committee vice-chairman is Dr. Helmut Heinrich, parachute specialist and professor of aeronautical engineering at the University of Minnesota.

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Working Toward Safety

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Windjammer Skippers Hold Activation Meet

For those who prefer the quiet power of sail to the noise and odor of engines, a reactivation meeting of the MSC Sailing Club will held April 20 at 5 pm in Room 266, Building 16. Also to be discussed will be a proposed sailing party in early May. For further details, call Jerry Grayson at 3286.

A Tale of Two Centers

HOUSEKEEPING—Grumman built the above motor-driven "LEM Cleaning Positioner" to tumble the LEM structure during final build-up to allow vacuuming of metal chips, dirt and other debris at several positions. When upright many of the LEM's corners and boys are difficult to clean.

Debris Shakedown
Nasa negotiates for additional S-IC stages, Engines, for Saturn V

Nasa will negotiate incentive contracts with two major aerospace firms for the procurement of five additional Saturn V first stages (S-IC) and 33 F-1 rocket engines.

Nasa will negotiate with The Boeing Co. for the stages.

Management Sciences Program Held April 22

The Southwest Institute of Management Sciences' annual meeting will hold a paper session on "Implementation of the Management Sciences" at the Crest Hotel beginning at 9 am.

Speakers on the program are Dr. I. R. Brunner, University of Houston; A. J. Phillips, Jr., Bonner & Moore; B. H. Russell, GE Apollo Support Department; W. C. Spruhl, Honeywell, Inc.; Dr. F. L. Lewis, Rice University; D. A. W. Fox, University of Florida, and J. W. Coln, Texas Instruments.

Further details are available from R. W. Shroder of GE at HUO, Ext. 357.

and with Rocketdyne Div. of North American Aviation for the F-1 engines for these stages, plus spares.

The five S-IC stages will cost more than $156 million. Nasa's plans call for the launch of 15 Apollo/Saturn V space vehicles by the end of 1970.

Boeing is under contract to Nasa's Marshall Space Flight Center, Huntsville, Ala. for the manufacture, assembly and test of two ground test stages and eight flight stages. Two Saturn V flight boosters are being assembled at the Marshall center from components supplied by Boeing.

Boeing's assembly and test operations are performed at Nasa's Michoud Assembly Facility, New Orleans; and Mississippi Test Facility, Hancock County, Miss., respectively.

Rocketdyne will supply the additional 33 F-1 rocket engines for the 11th through 15th flight Saturn V vehicles.

Cost of the 33 engines, including production, support and sustaining engineering through the 15-vehicle Saturn V program, is in excess of $150 million.

Rocketdyne is now under contract to supply 76 F-1 rocket engines. Fifty-four of these push-thrust engines are to be used on the first 10 Saturn V launches and remaining 26 are for ground-test stages and rocketdyne's contract for the 76 engines now totals more than $150 million.

First flight of the three-stage Saturn V launch vehicle is scheduled for next year. The 365-foot-tall Apollo Saturn V space vehicle will launch manned missions during the late 1960's or early 1970's.

Anyone for Tennis?

If you are a tennis enthusiast, you may want to participate in the upcoming tennis tournament. The tournament will be held on the tennis courts at the local park.

Newly-selected group of 19 astronauts

The roster of astronauts assigned to Nasa will jump to 50 in May when members of the latest group selected report for duty. The group is composed of four civilians, seven Air Force, six Navy and two Marine Corps officers.

Average age of the 19 is 32.8 years and average college years is 5.8. Two have doctorates. Flight time for each averages 2,714 hours, 1,925 in jens. Two men are single.

Recruiting of the new astronauts began September 10, 1965. A total of 351 applicants and 159 of these met basic qualifications. Of the 159, 100 were military and 59 were civilians.

To qualify, applicants must have been a United States citizen no taller than six feet, born on or after December 1, 1929, and have a bachelor's degree in engineering or in the physical or biological sciences. They also must have had 1,000 hours jet time or have graduated from an armed forces test pilot school.

The 19 astronaut selecutes and their backgrounds are as follows:

Vance D. Brand, civilian, was born May 9, 1931 in Longmont, Colo. He holds a BBA and BSAE from the University of Colorado, and an MSBA from UCLA.

He is married to the former Joan Virginia Wenger of Chicago. They have four children, Susan Nancy 12, Stephanie 11, Patrick Richard 8, and Kevin Stephen 3.

Brand is presently an engineering test pilot for Lockheed assigned to the West German F-104G Flight Test Center, Istres, France. He has 2,714 hours flight time - 1,721 in jens.

He served with the US Marine Corps from 1953 to 1957, and graduated from the US Naval Test Pilot School in 1963. John S. Bull, Lt. USN, was born September 25, 1934 in Memphis, Tenn. He holds a BSME from Rice and has completed one year of study at Rice toward a master's degree. He is married to the former Nancy Lainine Gustafson of Seattle, Wash. They have a son, Jeffrey Tyler 1.

Bull is presently a carrier suitability test pilot at NASP Participant, Newport News, Va. He is married to the former Nancy Lainine Gustafson of Seattle, Wash. They have a son, Jeffrey Tyler 1.

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Charles J. Davis, USAF, was born October 3, 1935 in Charleston, S.C. He holds a BS in Naval Science from the US Naval Academy and an MS in Aeronautical and Astronautics from MIT. He is married to the former Janet Haise of Kansas City, Mo.

He has been assigned since 1963 to the Marine Corps and the Aerospace Research Pilot School, Edwards AFB, Calif. He has 1,724 hours flight time in jens. He was commissioned an officer in 1957.

Joseph R. Engle, Capt. USAF, was born August 26, 1932 in Abilene, Kansas. He holds a BSME from the University of Kansas and was assigned to the Nasa Flight Research Center, Edwards, Calif., as a research pilot. He has 4,762 hours of flight experience and 523 hours in the T-38.

After completing an MS in Aeronautical Engineering, he joined Nasa's Langley Research Center, Hampton, Va. He has 2,372 hours flight time - 2,084 in jens. He was commissioned in 1956.

Edward G. Givens, Maj., USAF, was born January 5, 1930 in Quanah, Texas. He holds a BS from the University of Texas and an MS from the US Naval Academy. He is married to the former Ada Evan Musco of Bedford, Mass. They have two children, Catherine Helen 3, and Edward Galen III, 2.

Givens was assigned to the USM SSD office at Nasa as project officer for the Astronaut Maneuvering Unit (Gemini Experiment D-12). He has 3,353 hours flight time - 2,628 in jens. He was commissioned in the Air Force in 1952 and is a graduate of the USAF Experimental Test Pilot School and the Aerospace Research Pilot School.

Darrell L. Goff, Lt. Col., USAF, was born November 23, 1931 in Bixby, Miss. He holds a BSAE from the USM SSD office at Nasa as project officer for the Astronaut Maneuvering Unit (Gemini Experiment D-12). He has 3,353 hours flight time - 2,628 in jens. He was commissioned in the Air Force in 1952 and is a graduate of the USAF Experimental Test Pilot School and the Aerospace Research Pilot School.
Spain To Share In Operation Of DSN Station By Joint Agreement

Spain's Instituto Nacional de Tecnica Aeroespacial (INTA) will share in the operation of a U.S. space station near Madrid which maintains radio contact with unmanned probes to the Moon, Mars and Venus and will support the Apollo astronauts on their flight to the Moon.

Twelve-five Years

James E. Eaton
RASSO/Onway

Under a contract announced today, Spanish engineers and technicians will receive six months' training and be assigned positions in the operation and maintenance of the NASA station located near Madrid 40 miles west of the Spanish capital. The agreement is already being implemented; INTA has sent some of its key personnel to the United States for special training at the Deep Space Facilities, Goldstone, Calif. Further training will continue in the United States and on job training in Spain.

Trainees will be assigned to tracking, telemetry, communications and support positions on the team of Americans and Spaniards operating and maintaining the station.

The contract enters into effect May 1, 1966, and will be continued through Jan. 28, 1974, with the cooperation of both parties, in accordance with the government-to-government agreement between Spain and the United States signed Jan. 29, 1964.

Frequently found clipped under windshield wipers of MSC employee cars are Security citations saying "Illegally parked in a No-Parking zone." How does one legally park in a no-parking zone?

Smiley, Powers Chosen For Career Programs

MSC Director Dr. Robert R. Gilruth last week announced that Ed Smiley of Crew Systems Division, and James Powers of Gemini Program Office had been selected for participation by two of the nation's outstanding career development programs.

Smiley will pay a year of intensive study in the MIT Alfred P. Sloan Fellowship Program. Powers will complete approximately nine months work at one of five national known universities in the National Institute of Public Affairs career education program.

"It is unprecedented that the Manned Spacecraft Center is to be represented by Ed and James in these two fine university programs," said Dr. Gilruth.

Twenty-five Year

Colorado Springs, Colo. He has 5,468 hours flight time—3,780 in jets. He has been Air Force officer since 1953 and is a gradate of the USAF Experimental Test Pilot School and the USAF Aerospace Research Pilot School.

Dr. L. Lind, civilian, was born May 18, 1930 in Murray, Utah. He holds a BS in physics from the University of Utah and a PhD in physics from the University of California at Berkeley. He is married to the former Kathleen Maughan of Logan, Utah. They have five children, Carol Ann 10, David Melvin 10, Dawn 8, Douglas Maughan 6 and Kimberly 3.

Dr. Lind since 1964 has been at the NASA Goddard Space Flight Center as a physicist working on experiments to determine the nature and properties of low-energy charged particles within planetary atmospheres and in interplanetary space. He has 1,361 hours flight time—1,044 in jets. He was a naval officer from 1945 to 1957.

Jack R. Louisma, Capt. USAF, was born June 8, 1937 in Independence Kansas. He has 1,258 hours flight time—1,077 in jets. He has been a Marine Corps officer since 1959 and received the Navy "E" for piloting skills in 1962.

Thomas K. Mattingly, Lt. USN, was born March 17, 1936 in Chicago, Ill. He holds a BS from Auburn University.

Mattingly is single and is presently a student in the USAF Aerospace Research Pilot School, Edwards AFB, Calif. and will graduate this month. He has 2,582 hours flying time—1,036 in jets. He has been a naval officer since 1958.

Bruce McCandless II, Lt. USN, was born June 8, 1937 in Boston, Mass. He holds a BS in Naval Sciences from the U.S. Naval Academy, an MSE from Stanford University and a PhD candidate at Stanford. He is married to the former Alphonse Bertraise Doyle of Roselle, N.J. They have two children, Bruce III, 5, and Tracey 3.

McCandless presently is working on his doctorate in electrical engineering at Stanford. He has 1,435 hours flight time—1,399 in jets. He has been a naval officer since 1961.

Edgar D. Mitchell, LtCdr USN, was born September 17, 1930 in Hepsfield, Texas. He holds a BS in Industrial Management from Carnegie Institute of Technology, a BS in Mechanical Engineering from the US Naval Postgraduate School, and a Doctor of Science from MIT. He is married to the former Louise Elizabeth Randall of Pittsburgh, Pa. They have two daughters, Karlyn Louise 13, and Elizabeth Randall 11.

During this month will graduate from the USAF Aerospace Research Pilot School. He has 2,207 hours flight time—1,716 in jets. He has been a naval officer since 1953.

William R. Pogue, Maj. USAF, was born January 23, 1930 in Okemah, Okla. He holds a BS in mathematics from Oklahoma Baptist University and an MSE in mathematics from Oklahoma State University. He is married to the former Kitty Lee of Annapolis, Md. and is a graduate of the USAF Aerospace Research Pilot School.

Stuart A. Roosa, Capt. USAF, was born August 16, 1933 in Durango, Colo. He holds a BS from the University of Colorado. He is married to the former Joan Carol Barrett of Syracuse, Miss. They have four children, Christopher Allen 7, John Daniel 5, Stewary Allen 4, and Rosemary DeLozier 3.

Roosa presently is an experimental test pilot with Edwards AFB, Calif. He has 2,758 hours flight time—2,406 in jets. He was commissioned in 1953 and is a graduate of the USAF Aerospace Research Pilot School.

John L. Swigert, Jr., civilian, was born August 30, 1931 in Denver, Colo. He holds a BS from the University of Denver and an MSE in mathematics from the University of Colorado and MS in mathematics from Stanford University. He is married to the former dianna Stimler of Ann Arbor, Mich.

They have a son, Timothy James 3.

Paul J. Weitz, LtCdr USN, was born July 25, 1932 in Erie, Pa. He holds a BS from Penn State University and an MSE from the US Naval Postgraduate School. He is married to the former Suzanne Margaret Berry of Erie, Pa. They have two children, Matthew 8, and Cynthia Ann 5.

Weitz is presently operations officer of an ASH Thunderbird at Oak Harbor, Wash. He has 2,510 hours flight time—2,207 in jets. A naval officer since 1955, he recently completed a tour of duty aboard the USS Independence from which he has 132 combat sorties in Vietnam.

Alfred M. Worden, Capt. USAF, was born February 7, 1932 in Jackson, Mich. He holds a BS in Military Science from the US Military Academy and an MS in Astronautics/Aeronautics and Instrumentation from the University of Michigan. He is married to the former Pamela Ellen Vander Beek of Bayside, L.I., N.Y. They have two daughters, Merrilee Ellen 8, and Alison Pamela 6.

Worden presently is an instructor at the USAF Aerospace Research Pilot School, Edwards AFB, Calif. He has 950 hours flight time—1,108 in jets. He was commissioned in 1955 and is a graduate of the Empire Test Pilot School and the USAF Aerospace Research Pilot School.

April 20, 1961—The National Academy of Sciences issued a report by its Space Science Board which stated that “the histrionic and theatrical exploitation of Earth tells over and over again the deaths of bold explorers.”

April 25, 1961—Mercury-Atlas 3 was launched from Cape Canaveral in an attempt to orbit the spacecraft with a “mechanical astronaut” aboard. After lift-off, the launch vehicle failed to roll to a 70° heading and pitch over into the proper trajectory. The abort system activated the escape rockets prior to the launch vehicle’s destruction. The range safety officer after about 40 seconds of flight that had attained an altitude of 16,400 feet. The spacecraft then coasted to 24,000 feet, deployed its parachutes, and landed in the Atlantic Ocean.

The spacecraft was recovered and found to have incurred only superficial damage. It was then shipped to McDonnell for retesting.

Official Soviet report decried the fact-based training of the Soviet cosmonauts as follows: “It was established that all selected cosmonauts possess a good ability to endure weightlessness up to 40 seconds, the cosmonaut can eat food liquid and solid; can perform delicate coordinated actions, such as writing or purposeful hand motions; can maintain communications by radio; can read; and, besides, can orient visually.”

April 27, 1961—NASA Ames Research Center measured the intensity of radiation from the hot gas over the nose of a model flying through the air at 42,300 feet per second. This speed was 2,000 yards north of the launch pad. The spacecraft’s destruction from a shock-driven wind tunnel.

April 28, 1961—Little Joe 5B, a rocket Wallops Island to test the Mercury escape system under maximum dynamic pressure conditions. At one time the launch vehicle rocket motors did not ignite until after four seconds had elapsed. This fault caused the launch vehicle to pitch into a lower trajectory than had been planned, with a result that the abort maneuver experienced greater dynamic pressures than had been specified in the test plan. Other than this, all other sequential systems operated according to plan, and after landing a normal helicopter recovery was accomplished. Thus, all test objectives were met and were actually exceeded because the spacecraft withstand the higher dynamic pressures.

A simulated countdown for the first Mercury-Redstone manned suborbital flight (MR-3) was successfully completed.

Narrow Thought Inhibits Ideas That Pay Off

Hide-bound rationalizations frequently get in the way of constructive thinking that, if applied, would improve and streamline government operations to make them not only more efficient, but also easier on Mr. Taxpayer’s pocketbook, demonstrates.

MSC’s Incentive Awards program is designed to encourage free-thought among employees on how their own work can be done more quickly and cheaply. But thinking about it is not enough; these thoughts should be set down on paper in the form of an Incentive Suggestion. Such suggestions are now off in the form of award money—money which no one would even think of since.

Below are several state-of-mind stumbling blocks that often interfere with the way of innovation and progress in government operations:

• We tried that before.
• We don’t have the time.
• That’s beyond our responsibility.
• We’ve never done it before.
• Why change? We’re getting along fine.
• If I’m front office would squelch it.
• Let’s shelf it. Maybe it will die of old age.
• Employees don’t like change.
• Has anyone else tried it?
• If the above platitudes are indulged in, the government workers throw them out before they can completely paralyze originality—help stamp out tunnel vision.

Out of Texas’ Past—

Did a Texas College Prof Beat Signor Marconi into Airwaves?

A bare decade ago Texans were this planet’s greatest Chauvinists, bragglants and tellers of tall tales. Professional Texans loudly proclaimed the Lone Star’s supremacy in everything from natural endowments to military exploits. Everywhere in Texas was the biggest, best, hottest, coldest, longest, tallest, richest, oldest. Wherever they went, Texans boasted vigorously— even about their brahmagadicons. Thus the fame of the state of states had spread to the remotest villages of Siberia and Tibet.

The admission of the 49th state was the beginning of the end. As talented as crowning as they were at petroleum production, Texans at first tried to laugh off Alaska’s enormous size. They said Texas was still the largest inhabited state— thus Alaska out, and it would be no bigger than the Texas panhandle. But that was whisking Dixie.

When the flat claim is not ours, we retort, dynamic pressure conditions. At bigger than the Texas panhandle, radio. The flat claim is not ours, Methodist University. We also frequently get in the way of constructive thinking that, if applied, would improve and streamline government operations to make them not only more efficient, but also easier on Mr. Taxpayer’s pocketbook, demonstrates.

Author Seeks Examples Of Spacese, Narratives

Intrigued by the Ruskin thesis in the light of MSC’s profound cultural impact on the Galvez Bay area, Out Of Texas’ Past has assigned itself the opera of compiling two aids for present and future historians:

1. A dictionary of spacese. This is not to be a formal lexicon of technological terms like NASA’s new “Dictionary of Technological Terms for Aerospac.” It will be an informal catalog of assembled figures of speech, slang, colloquialisms, lingo, jargon, neologisms and peculiar usages in the space industry.

Examples: Lase, mode, de- boost, interface (both noun and verb), grand tour, sub-optimization, lunar, kluge (or is it kluge?), glitch (or is it glich?).

2. The second opus would be an anthology of authentic narratives of incidents in and related to the space program, each conscientiously labeled as to whether it is factual, fact-based, or purely imaginative. Examples: Factual: What the range safety director was heard to exclaim just before he pushed the de- structure button. Fact-based: What the pilot really said at the point in the communication up-transcript where the long elliptic occurs. Imaginative: The popular one about the kamakooma cast- aground on Luna.

Any and all contributions will be gratefully received. Just send to Out of Texas’ Past, AP-4, MSC, Houston. Confidences meticulously respected.

The Saturn V is 77.82 Toulouse-Lautrecs tall.
**Space News Roundup**

**Manned Spacecraft Center, Houston, Texas**

**Employee News**

**MIMOSA MEN’S LEAGUE**

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<td>Technics</td>
<td>16</td>
<td>12</td>
<td>0</td>
<td>28</td>
</tr>
<tr>
<td>Foul Play</td>
<td>16</td>
<td>12</td>
<td>0</td>
<td>28</td>
</tr>
<tr>
<td>Whirlwinds</td>
<td>15</td>
<td>13</td>
<td>0</td>
<td>28</td>
</tr>
<tr>
<td>Goobers</td>
<td>12</td>
<td>16</td>
<td>0</td>
<td>28</td>
</tr>
<tr>
<td>Roadrunners</td>
<td>12</td>
<td>16</td>
<td>0</td>
<td>28</td>
</tr>
<tr>
<td>Fabricators</td>
<td>11</td>
<td>17</td>
<td>0</td>
<td>28</td>
</tr>
<tr>
<td>Agitators</td>
<td>10</td>
<td>18</td>
<td>0</td>
<td>28</td>
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<tr>
<td>Green Giants</td>
<td>7</td>
<td>21</td>
<td>0</td>
<td>28</td>
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</table>

**1966 MSC/Ellington AFB Volleyball League**

<table>
<thead>
<tr>
<th>Division</th>
<th>Team</th>
<th>Wins</th>
<th>Losses</th>
<th>Ties</th>
<th>Matches</th>
</tr>
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<tbody>
<tr>
<td>National</td>
<td>Aces</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
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<tr>
<td>B</td>
<td>Eagles</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>C</td>
<td>Avengers</td>
<td>0</td>
<td>0</td>
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</tbody>
</table>

**MSC 5 O’CLOCK MONDAY MIXED LEAGUE**

<table>
<thead>
<tr>
<th>Team</th>
<th>Won</th>
<th>Lost</th>
<th>Ties</th>
<th>Matches</th>
</tr>
</thead>
<tbody>
<tr>
<td>TEAM WON LOST</td>
<td>50%</td>
<td>40%</td>
<td>5%</td>
<td>10</td>
</tr>
<tr>
<td>Hot Shots</td>
<td>55%</td>
<td>42%</td>
<td>3%</td>
<td>10</td>
</tr>
<tr>
<td>Hi-Hopes</td>
<td>49</td>
<td>51</td>
<td>0</td>
<td>10</td>
</tr>
<tr>
<td>Thrills</td>
<td>45%</td>
<td>52%</td>
<td>3%</td>
<td>10</td>
</tr>
<tr>
<td>Sporty’s</td>
<td>43%</td>
<td>56%</td>
<td>0</td>
<td>10</td>
</tr>
<tr>
<td>Bombers</td>
<td>43</td>
<td>57</td>
<td>0</td>
<td>10</td>
</tr>
</tbody>
</table>

**Game Results**

- April 18: Aces vs Eagles 2-1, Eagles vs Aces 2-1
- April 19: Eagles vs Aces 2-1, Aces vs Eagles 2-1
- April 20: Aces vs Eagles 2-1, Eagles vs Aces 2-1

**Roundup Swap-Shop**

**PILOTS, MAN YOUR PLANES!** — MSC Radio Control Club members once a month meet to discuss the latest in radio control gear, super-duper fuel, and to swap lies about the performance of their airplanes. Left to right are Tim Brown, Bill McCarty, Tom Perry, Bob Tracy, Marion Kitchen, Skipper Stenof, Choles Palermo, Dave Hoffman, John Kiker, Tom McPherson, Dave Clark and Harold Stenof.

**Flyers Keep Their Feet on Ground While Directing Airplanes in Flight**

Every Tuesday after work a group of 20 MSC employees get together to fly airplanes. The air-planes do all the flying while their owners keep their feet on the ground, for the group is the MSC Radio Control Club, most recent among clubs to be sanctified by the MSC Employee Activities Association.

The Club holds its combined business and program meeting the first Tuesday each month, but the national Tuesdays are spent in “fly-together” sessions in which members gather after work to demonstrate their aircraft and radio gear.

The Club’s “airfield” is the open area to the west of the HESD Aeronautical Chamber in Building 14. Through a Club field manager, self-imposed operating rules are observed by the Club members to insure safety in the flying area and to lessen confusion.

Each earbound pilot must have a valid FCC license to operate his radio-control equipment in either the Citizen’s Band or amateur radio frequencies. Experimental and home-built radio-control equipment ranges from sophisticated full maneuvering control to rudder-only control.

The Club welcomes onlookers to their flying sessions but allows no cars in the traffic pattern of their aircraft. A grassed parking space is available after hours in the Building 14 parking lot, and the activity can be observed from the parking lot or from the “airfield, but... watch for low-flying aircraft!”

The MSC Radio Control Club is open to all MSC, contractor and Ellington AFB employees who are interested in radio-controlled airplanes. One requirement for membership is each person also become a member of the Academy of Model Aeronautics, which provides liability and property damage coverage, sponsored meadline, insurance for all types of works and to promote model aircraft as a hobby.

Club officers for 1966 are Bill McCarty, president, Bill Mul- lacy, vice president, Tim Brown, secretary-treasurer, and John Kiker, field manager. Additional information on the MSC Radio Control Club is available from Brown at Ext. 4374.
Production Apollo CM Arrives for Sea Tests

The first production-line Apollo command module to be shipped to MSC arrived today to begin manned habitability demonstrations in a sea environment. Testing of the module, designated Airframe 007, and its post-landing systems in the Gulf of Mexico and in an environmental tank at MSC will be the final Apollo postlanding tests prior to manned earth orbital flights.

The command module arrived at Ellington AFB on the "Pregnant Guppy" aircraft. It was the Fifth S-IB Static Fired In Marshall Test Stand.

The fifth Saturn IB booster (S-IB-5) was captive fired for about 2-1/2 minutes April 1 at the NASA-Marshall Space Flight Center.

The successful test was the second and longest duration firing of the booster. A 35-second firing was conducted on March 23. The S-IB-5 was taken from the captive test stand on April 7 and shipped by barge back to the Michoud plant for post static test checks.

shipped by North American Aviation Inc., prime contractor for the Apollo spacecraft.

Airframe 007 contains all the recovery systems and equipment other than that required during actual flight. Its heat shield is a cork rather than ablative material, but the total configuration is that of a flight-type command module.

A series of tests will be conducted this spring and summer to verify operational suitability of the command module and to qualify the postlanding subsystems—egress, survival, communication and location, power, and spacecraft ventilation equipment.

The Apollo Postlanding Suitability Program tests will be conducted by the Landing and Recovery Division's Operations Evaluation and Test Branch. Wayne E. Koons is the program manager with Ronald K. Billie as project engineer on this test vehicle.

The T-O Jitters: "If the booster isn't fired next week, we will be."

Nimbus C Goes To West Coast For Launching

The nation's most advanced weather satellite, Nimbus-C, scheduled for launch April 26, was flown by C-133 cargo plane March 27 from Pennsylvania to the launch site at the Western Test Range in California.

Nimbus-C, Nimbus II if successfully orbited, underwent a year of rigorous testing at General Electric Co.'s Valley Forge, Pa., facility.

This will be the first National Aeronautics and Space Administration satellite to take and transmit nighttime infrared pictures directly to relatively inexpensive Automatic Picture Transmission (APT) ground stations.

Eight experimental APT stations are being modified to receive these pictures taken of the Earth's cloud cover at nighttime. Instructions for modification have been made available to interested stations.

Boondoggle: a trip taken by another man in the section.

Wholesale Thrust

THE BUSINESS END—The Saturn IB launch vehicle for the Apollo/Saturn 202 mission is readied for erection on Launch Complex 34. Technicians on and under the launch vehicle are dwarfed by its immensity. Eight H-1 liquid oxygen/RP-1 engines develop a total of 1,400,000 pounds thrust.

SECOND FRONT PAGE

Smylie to Study Under MIT Sloan Fellowship

Robert E. Smylie, chief of the Apollo Support Office of Crew Systems Division at the Manned Spacecraft Center, has been selected for a 1966 Sloan Fellowship in executive development.

The 12-month fellowship, under sponsorship of the Sloan School of Management at the Massachusetts Institute of Technology, will lead to a degree of Master of Science in industrial management. It is designed to broaden and develop outstanding, but typically specialized, young executives for more general and senior management responsibilities.

Smylie's selection is one of 45 Sloan Fellows selected each year by MIT from both the U.S. and abroad. Nomination of Fellows is made by both industry and government. Participants in the program spend a full year studying changing theory and practice of management decisions. The program includes a number of management policy and practice discussions with corporation presidents and senior government executives. Many of the discussions are held in field trips to major cities of this country and Europe.

As chief of the Apollo Support Office, Smylie is responsible for development of the life support and environmental control systems for NASA's Apollo program. His responsibility also includes a number of management functions with corporation presidents and senior government executives.

Smylie recently was named a member of Tau Beta Pi, Kappa Mu Epsilon and Pi Tau Sigma.

Houston AIAA Mails Ballots To Elect 1966-67 Officers

The Houston Section of the American Institute of Aeronautics and Astronautics next week will mail out ballots for the election of officers and board of award program recognizes 80

Superior performance, suggestion and invention awards and quality salary increases were made April 6 to 80 employees at the annual MSC awards program in the Auditorium.

Cash invention awards went to Andre Meyer for ablative structures $160; Joseph G. Thibaudaux for a solid-propellant rocket motor $150, and to Robert H. Lamb for a hypersonic reentry vehicle and for a spacecraft heatshield $400. Outstanding Performance Certificates went to 33 employees.

Among employees receiving quality salary increases was Neil Armstrong, Gemini VIII command pilot, following his successful early termination of the mission.

Today is Bad Friday

In addition to being Friday and the day payroll checks are mailed to homes and banks, today is another type of red (or black) letter day on each citizen's calendar—the deadline for filing Federal income tax returns.

space suit and portable life support system for use on the lunar surface.

Smylie is a native of Brooklyn, Mississippi, and graduated from Mississippi State University in 1952 with a B.S. in Mechanical Engineering. After graduation he spent approximately five years with Ethyl Corporation in Pasadena, Texas, before returning to Mississippi State to teach and work towards a Masters degree. He received the advanced degree in Mechanical Engineering in 1956.

He joined Douglas Aircraft Company in Santa Monica, California, in 1956 where he assisted in the design of the air conditioning system for the DC-8 jet transport. He joined NASA in 1962 and was active in operational aspects of the Project Mercury environmental control system.

His wife is the former June Reeves of Carthage, Texas. They have three children, Steven, Susan and Lisa. Smylie is a member of Tau Beta Pi, Kappa Mu Epsilon and Pi Tau Sigma.

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