SPACEPORT NEWS

Volume 2, Number 27 | NASA Launch Operations Center, Cape Canaveral, Florida | July 3, 1963

GETTING A JUMP on July 4th, Millie Jackson of Base Operations prepares to light this king-sized firecracker.

News Photo By Russ Hopkins

MSC Officials Tour State Discussing Space Programs

Three Manned Spacecraft Center officials at Canaveral have traveled across the state to discuss NASA programs with Florida business and civic leaders.

Orton L. Duggan, Chief, Integration and Test Operations Branch at Cape Canaveral for NASA's Manned Spacecraft Center, told 200 Ocala-Marion County Chamber of Commerce members last week that "with the advent of space exploration and exploitation, man stands on the threshhold of an unchartered and seemingly boundless frontier, as did Christopher Columbus some 470 years ago."

B. Porter Brown, Chief of MSC's Operations Support Office at the Cape, recently told approximately 350 Clearwater business and civic leaders that although American manned spaceflight achievements currently lag behind to some degree, those of Russia, the overall U.S. space research being undertaken today is more extensive than Russia's.

Dugald O. Black, Technical Assistant to the Manager, MSC/AMR Operations, told Daytona Beach Rotarians last week that due to the extreme research nature of manned space flight missions, there will be a gradual buildup on the Gemini program similar to the Mercury program.

Black explained that manned spacecraft do not attain an operational status as do other NASA or military systems since each spacecraft is configured to the very latest space flight knowledge. This includes data gained on the flight immediately preceeding the schedule flight, he continued.

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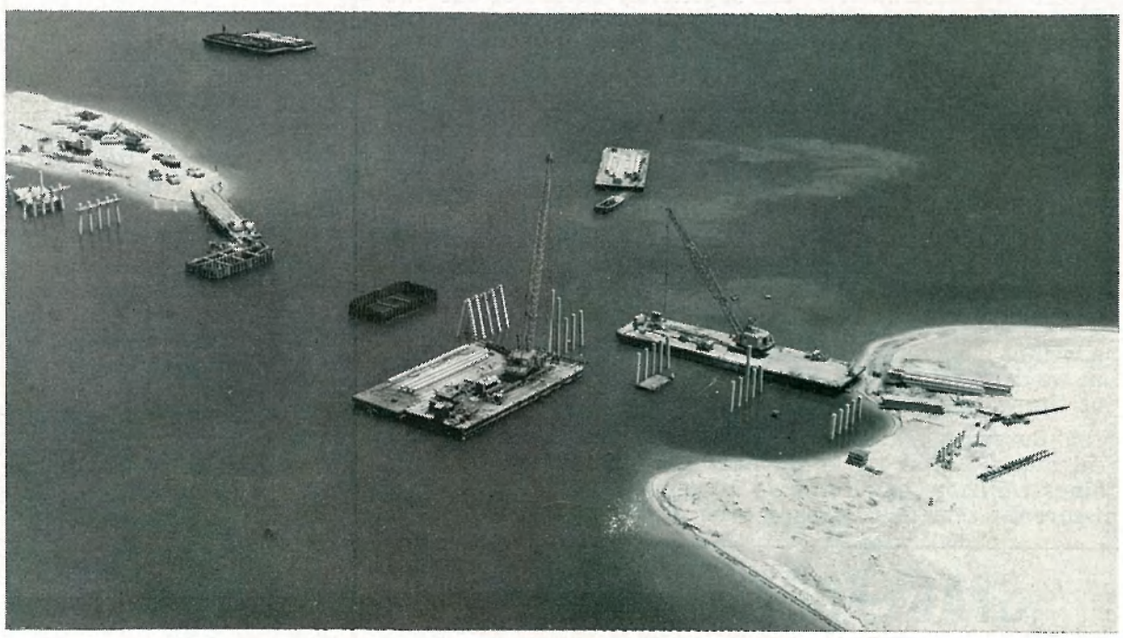
Moon Map To Provide Geological Information

NASA has asked the U.S. Geological Survey to make a comprehensive map of the moon's 8.5 million square miles of surface.

The map will provide basic geological information needed to place instruments and men on the lunar terrain.

The moon mapping, says Dr. Robert J. Hackman of the Survey's astrogeological branch, is accomplished by a combination of stereostatic examination of photographs, telescopic observations, and analysis of brightness changes measured with a microdensinometer.

The map will show the distribution and relative age of geological units and major structural features in both symbol and color.



TAKING SHAPE in the middle of the Banana River is this bridge-to-be, a 90-foot, double-leaf bascule, which will span the river's access channel on the NASA Causeway. This three-mile, two-lane causeway segment will join a four-lane causeway between MILA and the mainland over the Indian River. The MILA-Cape causeway will connect with U.S. Highway 1 south of Indian River City at Addison Point.

SPOTLIGHT

PASS ALONG A LITTLE HERITAGE

"It is my living sentiment, and by blessing of God it shall be my dying sentiment, independence now and Independence forever".

— Eulogy on John Adams and Thomas Jefferson, 1826

Tomorrow, America will blow out — with festive celebrations across the country — 187 birthday candles.

The day will be full of picnics and softball games and fireworks and all sorts of fun.

But perhaps sometime tomorrow, when there's a momentary lull in the activities, we should stop a minute and remember just what it is we're celebrating.

How long has it been since you've recited the pledge of allegiance to the flag, or thought of Lincoln's words at Gettysburg?

It would be a good time to tell our children a little about this great country of ours and its hard-earned independence.

Let's pass along a little heritage.

APOLLO'S MERITS

Dr. Lloyd G. Berkner, President of the Graduate Research Center of the Southwest in Dallas, had some pertinent remarks to make before the Senate Committee on Aeronautical and Space Sciences during the recent inquiry into the merits of the Apollo program.

The nation that achieves and retains mastery of space will have won the equivalent of a war, he told the Congressmen.

"Men everywhere see, in the conquest of space, the peaceful demonstration of the superiority of one of the two competing systems of economic organization, capitalism vs. communism, he said.

"The conquest of space has become a symbol of the challenge of each system to demonstrate it's superiority. Some may deplore this situation as foolish, or ungentlemanly, or costly or unintellectual, but that's the way it is and we had better accept it if we want to retain our free system," Dr. Berkner added.

Dr. Lee A. DuBridge, President of the California Institute of Technology, also testified before the committee, and challenged critics of the Apollo program.

"Of course there are lots of things we would like to do as well as explore space," he said. "We'd like to cure cancer, but we don't know how. We'd like to abolish hunger throughout the world, but we don't know how."

"But we do know how to go into space. And in this real and practical world we had better go ahead with the things we know how to do — to capitalize on the technical discoveries that have already been made."

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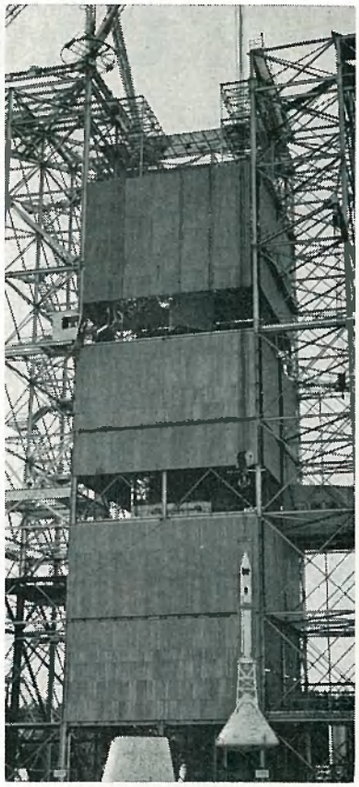
Published each week by the National Aeronautics and Space Administration's Launch Operations Center, Cape Canaveral, Florida.



A "BOILERPLATE" (non - flight) model of the Apollo three - man lunar spacecraft tower, right, is shown being placed in the dynamics test stand at the Marshall Space Flight Center for a series of vibration and mating tests. It is being tested with the S-IV Saturn upper stage.

KRONOR FOR SPACE

The U.S. manned space flight program has received some unofficial international support.

Erik Svensson of Malmo, Sweden, was so impressed with Major Gordon Cooper's MA-9 flight, he wrote the astronaut a letter.

"It is with great happiness," he said, "that I extend my good wishes to the very fortunate space traveler who amazed the entire free world.

"I know this is an expensive project, and it is for this reason that I wish for you to have this small contribution to help defray the cost."

Enclosed in the envelope was $1.70 worth of Swedish kronor.

Lost and forgotten badges weaken security.

$35 MILLION PACT SIGNED FOR MODULE

NASA has signed a contract totaling $35,844,550 with the AC Spark Plug Division of General Motors Corporation to fabricate, assemble and test the navigation and guidance system for the Apollo command module.

AC Spark Plug is one of three contractors participating with the Instrumentation Laboratory of MIT which has overall responsibility to NASA for design, development testing and operational support of the Apollo navigation and guidance system.

Raytheon Co. will fabricate and assemble the onboard digital computer and the Kollsman Instrument Corporation will fabricate and assemble the optical subsystems which include a space sextant, a telescope and navigational display equipment.

Under the contract AC Spark Plug will fabricate electro - mechanical components and will assemble and test the complete guidance and navigation subsystem.

Essay Contest Open On Rocketry Aspects

The National Rocket Club has announced the opening of the 1963 Robert H. Goddard Historical Essay award competition.

Essays may cover any significant aspect of the historical development of rocketry and astronautics and will be judged on their originality and scholarship. They may bring new information to light or may cast a new and different light upon events or individuals influencing rocketry and astronautics in the United States.

Essays should be submitted by Nov. 1 to the Goddard Historical Essay Contest c/o National Rocket Club, 1745 K Street, NW, Washington, D.C.

The winner, who will be announced in March, 1964, will receive a trophy, a $200 prize and a certificate.

For complete rules call Wally Hudgins, SU 3-3758.

NASA-RCA To Negotiate Sites' Pact

The RCA Service Company has been selected for initiation of contract negotiations for operation and maintenance of two new NASA satellite data acquisition facilities near Rosman, N. C., and Fairbanks, Alaska.

RCA will be responsible for all operational and maintenance support needed to operate each facility. The cost, over two-year period, will be more than $5 million.

The first two stations are designated Rosman I and Ulaska. Each consists of an 85-foot parabolic antenna, data acquisition systems and other needed support facilities. The stations are completely self-supporting, including their own power and other utilities.

The Rosman I and Ulaska stations will begin operating next month and will be completely operational by September. The second Alaska station, designated Gilmor, will be completed early in 1964 and the second Rosman station, to be known as Rosman II, is expected to be ready by mid-1964.

The new facilities will be the first high capacity data acquisition stations in support of NASA's new generation of scientific and meteorological staellites. These multi-experiment satellites include the orbiting Astronomical Observatory (OAO), the Polar Orbiting Geophysical Observatory (POGO), the Ecentric Orbiting Geophysical Observatory (EGO), all projects of the Goddard Space Flight Center.

Echo I Still Going

Echo I, the balloon satellite America put into orbit in 1960, now is partly crumpled and riddled by meteorites but still is whirling around the earth, visible to the naked eye although not as clearly as before.

Echo's arbit is "holding up fine," a spokesman for NASA said and the huge aluminized satellite could stay up for another year or more. It was launched Aug. 12, 1960.

NEW YEAR comes six months early for Procurement and Contracts people, who lunched Friday at the Cape Colony Inn to celebrate the end of the Fiscal Year. The group also paid homage to Chief Gerry Michaud's secretary, Betty Crippen, who is moving to Boca Raton.

KING-SIZE MUFFLER TO STIFLE SATURN'S MIGHTY ENGINE ROAR

An experimental sound suppressor which may be a forerunner of a muffler to stifle the noise from big rocket booster captive firings is being tested at NASA's Marshall Space Flight Center.

The king-size muffler, a water-lined tank 126 feet long, 24 feet high and 24 feet wide, is one-sixth the size of a drawing board version of a silencer that could be used for the Saturn V and other large rockets.

Rocket noises — mainly the low frequency ones — are being suppressed efficiently with the novel muffler, which is being used in the Center's unique sound suppressor development program.

An H-1 engine, which produces 165,000 pounds of thrust, is fired into the muffler to test the effectiveness of its design.

Squelch Noise

Marshall engineers, exploring the really-new field of rocket engine sound suppression, have found that they can squelch the noise generated by miniature scale engines by a factor of ten. They are now providing their findings with the large scale version.

Fritz Kramer, who is directing the program, said suppression of high-intensity sound as generated by rocket engines is so new there are no specific requirements for suppressors.

"We only know if we can get a sound reduction of more than 10 decibels (a factor of 10) this would give sufficient sound reduction to prevent annoyance to outlining communities during large booster tests.

"Sound pressures will be so high on test stands built for future large stages," Kramer said, "there will be a need to have something to reduce noise thus preventing damage to delicate rocket parts.

Development Costly

"Development of large suppressors cost a lot of money," he said, "so we are working with models that have the same effectiveness but are much cheaper to build."

"To suppress sound generated by rocket exhausts!" Kramer pointed out, "you must reduce the velocity of the jet as soon as it leaves the nozzle."

Kramer stated that low frequency noise does not attenuate quickly, as does other noise, and is an annoying by-product of static firings. When focused by weather conditions, low frequency sound can be heard and felt many miles from the test site.

Kramer, explaining the suppressor principle, said the fast moving engine gases create a low pressure in the "muffler" chamber causing water standing in the upper jacket to be pulled into the jet.

Some 9,000 pounds (1,100 gallons) of water a second are mixed with the jet. Kramer said this is about 14 pounds of water for every pound of propellant burned by the engine. The engine uses about 650 pounds of liquid oxygen and kerosene a second.

Steam and gases rise to the top of the closed suppressor and go through a water spray before escaping to the outside air. The spray cools the steam causing it to condense into water again.

Kramer predicts that sound suppressors for large static stands are practical.

"We think what we have accomplished is about optimum for the present design approach and is particularly valuable because the sound suppressor is very efficient in the low frequency range."

Youthful Weathermen Begin Observations

Fifth and sixth graders at Emery Elementary School in Washington have started drawing cloud formations, taking wet and dry bulb temperature readings, and measuring barometric pressure and wind velocity — all to help the U. S. Weather Bureau.

The Bureau has recruited about 50 youngsters in the area in hopes that some of the clouds the weather satellite Tiros films from 450 miles up can be identified and pinpointed specifically.

The Project Skywatch isn't due to start until the fall, but the Weather Bureau is trying the students out on their observation skills now.

NASA NEWCOMERS

Fifty-five new employees have joined NASA at the Cape, Cocoa Beach and in Huntsville in the past three weeks.

LVO, Huntsville: Lowell Mason, Noel D. Buffington, Floyd E. Lundy, Jr., Robert M. Jerguson, Betty F. Headrick, Fred Harris, Jr., Ewell P. Smith, David K. Brookshire and Hans W. Palaoro.

MSC: Preflight Operations ger: Floyd D. Brandon.

MSC: Preflight Operations Division: William H. Webb, Niven N. Ball, John M. Keefer, Dale E. Jansen, William L. Beeker, William S. Kendall, Jr., Bert L. Grenville, George F. Page, David E. Long, Ollie Smith, Roger Cooner, James J. Tadich, Harold J. Fuller, John W. Coburn, Jr., and Hubert O. Barbour.

Goddard Space Flight Center: Robert Kemerait, and William Brosier.

LOC: Nicholas V. Costello, Ruth G. Stein, James E. Battles, E. Michael Chambers, James M. Coonce, Jr., Denise C. Coward, Alexis A. Johnson, Edward E. Manning, James J. Phillips, Stephen J. Prosen, Billie J. Smith, Francis F. Uteg, Joylyn S. Walls, Michael A. Vickers, Charles H. Sinex, III, and Benn Cowan.

Donald R. Bailey, John M. Curran, Richard A. Simmons, Lonnie Blocker, Howard M. Jones, Marion L. Miles, Thomas C. Ormsby, Edna I. Stamp, Billy C. Wilson, Robert W. Paskel, Peter M. Ricca, Ida E. Denney, Charles Hollingshead, and Brian Fullmer.

Dear Sir:

"Would it be possible to paint in red, white and blue letters the words 'John Glenn Launch Pad' at Cape Canaveral, so tourists flying over will be able to see it?"

William B.
Chicago, Illinois.

NASA Employees Honored For 182 Years' Service

G. Merritt Preston, Manager, MSC - AMR operations, presented service awards to 22 MSC personnel recently at the Cape.

Honorary service emblems, certificates and congratulatory letters were presented for 20, 15, 10 and one year of federal service.

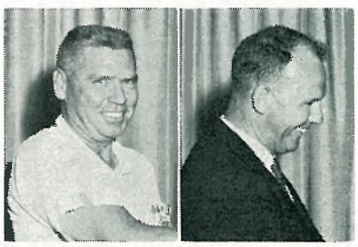
Recipients of 20 year awards were Dugald Black, Paul Donnelly, Carl Griffis, Raymond Kalgallen, Ned Morrison and Jacob Moser.

Cited for 15 years' service were John Kornegay and Marvin Picos.

Ten year veterans honored were James Conley and Melvin Ezell.

One year awards went to Aron McMillan, Vicki Lester, Wiley Williams, Moody Steadham, Glenn Roberts, Myrtle Zita, Stanley Gross, Richard Nersesian, Albert Lightsey, James Cerven, Donald Phillips, and Albert Branscomb.


Donnelly Black


Griffis Kalgallen


Moser Kornegay


Ezell Conley

Hill Elected Chairman Of Technical Writers

The Cape Canaveral Chapter of the Society of Technical Writers and Publishers held their first meeting last Wednesday.

Russell Hill of LOC was elected Chairman for the coming year. Other officers elected were: Vice Chairman, George Woerner, Martin; Secretary, Mrs. Ruth Woodruff, BTL; and Treasurer, Art Harris, RCA.

In addition, Dave Smith of LOC and Harold Moxham of Aerospace were elected to two year terms on the Board of Directors, and Paul Farrington, Martin, and Bill Willmot, LOC, were elected to one year terms on the Board.

The new officers are already lining up programs for the fall season. This new program will consist of lectures by outstanding writers and editors, and with the cooperation and support of the membership, will include at least one workshop.

Anyone interested in joining the Chapter should contact one of the officers or board members for additional information.

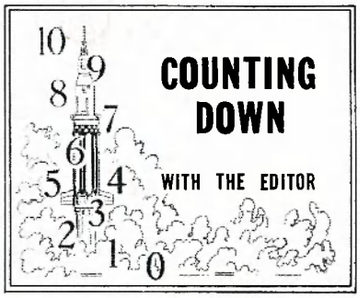
MSC OFFICIALS

(Continued from Page 1)

Brown said the benefits from this research as applied to future manned spaceflight will provide more rapid advancement of our programs.

We don't know what Russia's crew safety record is, but wo do know that ours is 100 per cent—which can't be improved upon, he said.

Duggan said "At the time Columbus was desperately attempting to procure funds, equipment, and manpower to explore the then unknown boundaries of uncharted seas, few if any, foresaw the establishment of the Spanish Main and the rapid emergence of Spain as the greatest power of the times as the result."



The word game called "Tom Swifties" is sweeping the country these days. It's a modern-day takeoff on the old Tom Swift novels in which the hero always ended his sentences with an adverb.

A "Swiftie" is a pun with a double meaning adverb. Example: "I'll have a martini," said Tom drily.

With a little stretch of the imagination and a lot of adverb stretching, we came up with the following gems, specially tailored to the space age. Here goes:

"How weightless can you get?" the spacecraft pilot asked lightly.

"We'll get there yet," said Jerri Cobb belatedly.

"Look at that rocket's crazy trajectory," said the range safety officer explosively.

"I'm reentering now," Glenn radioed heatedly.

"We'll have to try the rendezvous next time," said the Cosmonaut fleetingly.

Of course the list could go on and on, but this should give you the idea. If you can think of a good one, drop it in the mail and we'll pass it along. We especially like this one, created by Al Lavender of Presentations:

"I think I have a hole in my space suit," the astronaut said breathlessly.

* * *

Incidentally, if you're wondering whether or not the mail room shortchanged you on this week's Spaceport News, forget it. We had to run a four-pager to make up for the 12-page MA-9 special issue a few weeks back. Our contract calls for "an average of eight pages per week."

* * *

True story: Cindy, the three-year-old daughter of a Cape worker saw the night launching of a Minuteman last week. When the second stage ignited she exclaimed excitedly "Look Daddy, it came unglued!"