

SPACEPORT



NEWS

Volume 2, Number 3

NASA Launch Operations Center, Cape Canaveral, Florida

January 17, 1963



CARPOOL CONTORTIONS of Dick Shinn, left, who shares space with Frank Jarrett and Dr. Robert Lindemann, (center) of Technical Information, in Jarrett's Karmann Ghia, are not particularly recommended, but doubling up would, of course, help. County causeway construction, meanwhile, is progressing rapidly.

News Photo by Russ Hopkins

LOC To Award \$400 Million In Contracts During Year

NASA's Launch Operations Center committed approximately \$150 million for scientific space activity in 1962. The major portion of these funds were used to gear up for the national goal of landing American astronauts on the moon before the end of this decade.

And contracts for about \$400 million are expected to be awarded by LOC this year as the Manned Lunar Landing Program gathers momentum.

Major contracts awarded during calendar year 1962 included: modifications and additions to Saturn Launch Complex 34, approximately \$2.3 million; construction of a second launch pad for Saturn Launch Complex 37, \$4.5 million, and design of the Verti-

(See LOC, Page 7)

Top Priority Given To Surveyor Craft

A top priority (DX) label has been attached to NASA's Surveyor project, according to Dr. Abe Silverstein, Director of the Lewis Research Center in Cleveland.

The unmanned Surveyor spacecraft will take closeup television pictures of the moon and land a payload of four TV cameras, analytical instruments and a drill on the lunar surface.

These instruments will study possible hazards to lunar exploration created by particles scattered from the moon when it is struck by high-velocity meteoroids.

The drill is to penetrate and analyze the lunar surface.

CAUSEWAY COMMOTION

BETTER TIMES AHEAD FOR CAPE COMMUTERS

Relief is in sight for Cape commuters.

Four-laning of Causeway 520 may well be completed ahead of schedule, and work on the new Cape Canaveral causeway is nearing the half-way point.

J. T. Barber, road superintendent and vice president with the W. L. Cobb Construction Company, prime contractor for the 520 work, said the road may be opened to the public well before the March 6 target date, possibly late next month.

The \$1,374,000 four-laning project is now more than two-

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thirds completed.

Barber said, as of Monday, his crews had used only 51 per cent of their working time but had completed more than 67 per cent of the project.

EPISCOPAL BISHOPS AT CAPE TOMORROW FOR TOUR OF SITES

Eight bishops of the Episcopal Church will tour Cape Canaveral tomorrow, as guests of NASA and the Air Force.

Heading the visiting delegation will be the Most Reverend Arthur Lichtenberger, Presiding Bishop of the Protestant Episcopal Church of the United States.

The other visitors include the Rt. Reverend Ian W. A. Shevin, Bishop of North Queensland, Australia; the Rt. Rev. William C. Campbell, Bishop of West Virginia; the Rt. Rev. M. George Henry, Bishop of Western North Carolina; the Rt. Rev. Chandler W. Sterling, Bishop of Montana; the Rt. Rev. Henry I. Loutit, Bishop of South Florida; the Rt. Rev. James L. Duncan and the Rt. Rev. William L. Hargrave, suffragan Bishops of South Florida.

They will be accompanied by several Episcopal clergymen and laymen from throughout Florida.

The bishops are gathering in Florida to participate in the Episcopal Church's month-long Cursade of Faith.

A major bottleneck, from the Cocoa Beach causeway light to Radio Station WRKT, was opened up this week, and traffic has begun flowing more freely.

Excavation, draining construction, curbing and gutters, limerock base work, bridge piling, and concrete caps and slabs are all more than 75 per cent completed.

Traffic control work is nearly half finished and paving is now underway.

A special traffic lighting system will be used for crossing the causeway's two remaining two-lane bridges — at Banana River and Indian River.

During peak hours, one-way traffic will move across both lanes of the bridges through a light set to regulate.

(See CAUSEWAY, Page 7)

Commendable Record

Despite the consistently heavy flow of traffic across the 520 causeway, only four of 35 countrywide traffic fatalities were recorded over the eight-mile stretch last year. Another three fatalities occurred on state highway 401.



PATIENCE

"No state of life but must to patience bow." Robert Dodsley

Patience, said Thomas Hardy, is a blending of moral courage with physical timidity.

Perhaps nowhere is the demand for patience greater and the supply shorter these afternoons than in the southbound traffic lanes from the Cape and the westbound lanes from the Cocoa Beach end of the causeway.

Here, moral courage is sorely taxed, and were it not for deep-seated inhibitions, physical timidity would give way to devilish desires.

Anyone who has braved the snail-paced traffic has surely felt the urge to jam down on the accelerator and speed over the tops of autos. Or perhaps your dream has included a giant-sized cow-catcher on your car's front bumper that would sweep aside all vehicles as you roared swiftly home.

Admittedly, it would be nice, particularly since the lines have been longer and slower than ever these past few days.

But the worst is over. Road contractors this week are opening the bottleneck from the causeway light past Radio Station WRKT, and the traffic trickle should funnel a little more freely.

This should increase to a steady stream at the completion of the causeway work in late February.

Opening of the Cape Canaveral causeway in August or September will further alleviate the situation.

And so the days of the overheated engine and the overcooked supper, hopefully, are numbered.

The tread on our patience is understandably thin. But if we can recap it to last a little longer, our frustrations will soon be over.

COMMON MARKET IN SPACE

The recent decision to disclose details of space launching rockets to European countries in exchange for cooperative work on future joint space projects, should meet with approval from both sides of the Atlantic.

A group of senior U.S. officials recently discussed the matter with representatives of the European Launcher Development Organization (ELDO), and the British Ministry of Aviation.

The probable advantage of such cooperation appears to be that the U.S. would have access to European technical manpower, while Europe would have access to American experience, which could help avoid a duplication of effort.

NASA has previously limited its cooperation with other countries to satellites, the scientific experiments aboard them and the ground stations that track them.

The U.S. apparently changed its policy about supplying launch vehicle information because it believed the Europeans are ready to conduct multi-nation space projects.

Many experts say Europe, in fact, is on the threshold of a very sizable effort in the field of space launches.

The business and technical opportunities which will follow such an agreement are considerable and already apparent. It won't hurt our public relations abroad, either.



SMILING SIGN, which says "relax with us," is no comfort to 520 causeway commuters, but construction officials say relief is fast on the way. The four-laning project may be completed next month, well ahead of schedule.

Soviets Eye Grand Goals

Russian cosmonauts, in a letter to America's astronauts, say they are ready to "work persistently with U.S. researchers in further space explorations, to expand cooperation in the interests of world science for the benefit of all mankind."

What Soviet space projects will come next can only be a subject of conjecture, but one news report has listed some possibilities.

The launching of two men in one capsule, assignment of a woman to an orbital trip, a sustained flight even longer than Cosmonaut Nikolayev's voyage last summer, and the rendezvous of two capsules in orbit are among the possibilities not far away on the Russians' space schedule, according to the report.

International Edition

Spaceport News, like the rockets it reports on, travels a long way. The News this week received a letter from Ronald Bedford, Science Editor of the London Daily Mirror.

Said Mr. Bedford: "Your first issue reached me today. I should like to offer my congratulations."

"May I, through your columns, convey every good wish for 1963 to my many friends at the Cape and at Patrick AFB."

SPACE ALMANAC

A CHRONOLOGY OF EVENTS IN SPACE EXPLORATION AND RESEARCH.

Five Years Ago

Jan. 17, 1958 — A Special Subcommittee on Outer Space Propulsion was created by the Joint Congressional Committee on Atomic Energy, with Sen. Clinton P. Anderson as its chairman.

Three Years Ago

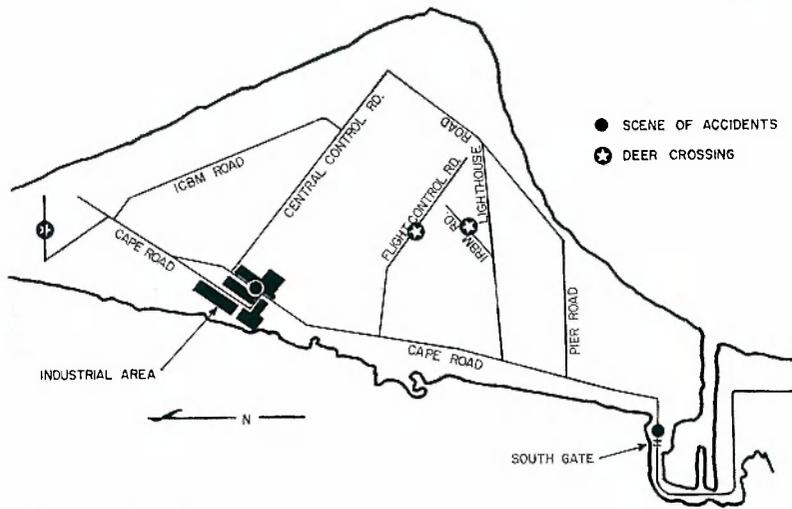
Jan. 20, 1960—NASA presented its 10-year plan of space activities to Congress. The plan included 25 major vehicle launchings a year, with increasing mission capability as research and development programs proceed.

Jan. 21, 1960—The fourth Little Joe launched from Wallops Island fired a Mercury Capsule in a successful test of the emergency escape system. The passenger, a monkey named Miss Sam, was successfully recovered after undergoing 20G acceleration and reaching an altitude of 48,900 feet.

One Year Ago

Jan. 17, 1962 — The X-15, piloted by NASA's Neil Armstrong, flew to 207,000 feet and reached 3,715 mph at Edwards AFB. Armstrong has since been selected as an astronaut trainee for the Gemini and other future NASA manned space programs.





CIRCLES AND STARS on Cape map indicate two most frequent accident scenes and three most popular deer crossing sites.

Traffic Accidents On Wane Despite 27% More Vehicles

The number of traffic accidents at Canaveral dropped from 79 in 1961 to 61 last year.

Traffic Sergeant James Louwarse of Pan American's Security Police force, said the opening of the one-way reclamation road, which runs past Hangar AF leading southbound traffic from the Hangar Road into the Cape Road, was a major cause for the cut-down in accidents.

He also cited drivers as being more careful and courteous.

The improved record occurred despite a 27 per cent increase in traffic last year.

Louwarse estimates there are 16,000 vehicles in operation on the Cape daily. During peak rush hours as many as 1,000 vehicles may pass in or out of the South Gate in a 15-minute period.

There have been no traffic fatalities recorded at the Cape for the past eight years, ever since records were first kept.

Louwarse blamed failure to yield right-of-way and speeding as the chief causes of accidents.

Surprisingly, following too closely isn't a major cause, due to the efficient flow of traffic on the Cape.

The two main areas where most mishaps occurred were on the Cape road through the industrial section in front of Hangars J, I and D, and at the south gate.

Louwarse said most accidents in the industrial area were the result of failure to yield right-of-way.

"People get used to rushing

through yield signs during slow hours when there isn't much traffic," the sergeant explained. "Then, when the rush hour comes, they forget to make a full stop and look carefully.

"At the South Gate, the third lane was troublesome during peak hours.

"Drivers come into the South Gate in the afternoons and if a truck or bus is in front of them, they swing left into the third lane without looking.

"In the mornings this third lane traffic sometimes has trouble weaving back into the eastbound flow."

The 14-man Cape traffic

DANGEROUS DEER

Four of the 61 traffic accidents at the Cape last year were caused by jay-walking deer.

Pan Am Traffic Sergeant James Louwarse said Flight Control Road leading to the Minuteman complexes, and access roads near Complexes 34 and 37 were the most popular deer crossings. He is, in fact, considering putting up some warning signs.

Although all four accidents caused damages of less than \$25, an eight-point, 132-pound buck put a sizable dent into one car.

Hunters should beware, however; deer are "out-of-season" year-round at the Cape — even for motorists.

Longer Trip To Give Coop Time To Nap

Astronaut Gordon Cooper, at the Cape preparing for MA-9, may get a chance to sleep on the job when he orbits earth this spring.

Plans are now being considered for Cooper to make as many as 22 orbits. Such a flight plan will allow him to take one or two naps.

The total mission will require 34 hours, nearly four times longer than Astronaut Wally Schirra's six-orbit trip last October.

The extended orbits will switch Cooper's primary recovery area from the Atlantic Ocean to the Pacific, near Midway Island.

In preparation for the longer flight, the 2,500 - pound Mercury spacecraft has been modified to increase its electrical battery supply by 3,000 watt-hours, and its oxygen supply by four pounds.

The oxygen supply is viewed as more than ample. On the Schirra flight, for example, only 20 per cent of the more limited supply was consumed.

force patrolled more than 209,000 miles over the Cape's 90 miles of arterial roads last year.

They issued 2,878 citations and 486 warnings during the past 12 months.

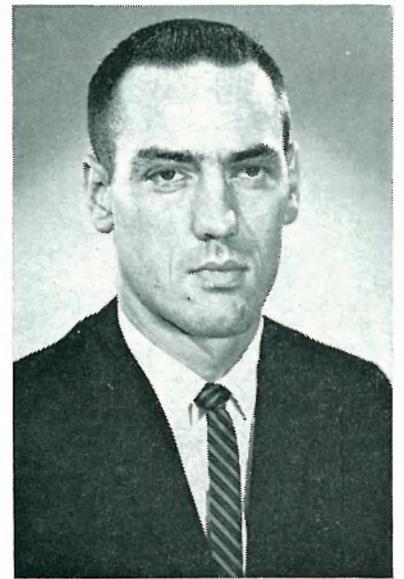
Louwarse, a former Florida state trooper, said a point system is used at the Cape.

"Each driver is assessed a certain number of points per violation," he explained. "If a driver accumulates 12 points, we suspend him from driving on the Cape for six months."

A speeder gets a two-point assessment, but if he causes an accident resulting in damage of \$100 or more while speeding, he can get up to five points.

Driving while intoxicated automatically results in suspension of Cape driving privileges.

"One violation not everyone knows about," Louwarse said, "is leaving keys in personal cars. This is a two-point offense. We do this to cut down chances of auto theft."



Alan Guthrie

GUTHRIE ADDRESSES SUPPLY MANAGERS IN WASHINGTON

Alan Guthrie, LOC's Automatic Data Processing (ADP) Chief, made a presentation in Washington Tuesday on "Integrated Inventory Management Systems."

Guthrie spoke to supply officers, management analysts and persons closely associated with management, at a civil service ADP seminar.

He demonstrated how functions of various offices can be integrated through machine processing without losing their individual identities.

Purpose of the seminars is to provide insight into how ADP systems can be designed in each of the specific functional areas under consideration, in order to achieve maximum management effectiveness, with particular reference to the logical sequence of steps involved in automating.

Three Attend Confab

Lawrence Kruse, Wallis Rainwater and C. B. Sweat of LVOD's Mechanical, Structural and Propulsion Office attended a meeting of the Florida Association for Contamination Control in Jacksonville last week.

A presentation of the latest theories and developments in environmental control of contaminants was discussed at the one-day Southeastern Chapter meeting.

Profile: Dean Conger

ACE LENS MAN RECORDS COOPER'S TRAINING

National Geographic Photographer "On Loan" To Document Space History In The Making

The 1961 Magazine Photographer of the Year is a tall, 35-year-old Casper, Wyoming, native whose travels have taken him from the interior of Mongolia to the fringes of outer space.

Bespectacled Dean Conger, staff photographer for the National Geographic Magazine on "loan" to NASA, and presently at Canaveral covering MA-9 flight preparations, could easily pass for a scholarly professor or a business executive.

He joined Geographic's staff in 1959, and has worked with NASA, off and on, since the spring of '60.

"It's a running joke," Dean says, "that I work for the government, am paid by Geographic, and get published in Life."

(One of Conger's most memorable Life photos, left center, was a color shot of John Glenn embracing Scott Carpenter following Carpenter's orbital flight last May.)

Recovery Coverage

Dean's streak of photographing each astronaut aboard his recovery ship in the Atlantic was broken last October when Wally Schirra re-entered in the Pacific.

Starting with the early chimp launches and counting scrubs and aborts, Dean has made a dozen sea trips to photographically document space history as it's made.

Between Project Mercury assignments, Conger has managed trips to Italy (after Shepard's flight), to Mongolia (following Grissom's trip), and to the Grenadine Islands (after Glenn's flight) on National Geographic assignments.

Mongolian Monastery

The journey to Mongolia, with Supreme Court Justice William O. Douglas, was one of Dean's more memorable adventures. He took hundreds of photos (200 in one Monastery) during a five-week tour of this strange country which has progressed remarkably little since the days of Genghis Khan.

He went from camel's back in Mongolia to the back seat of an F-104 supersonic jet

to photograph NASA's X-15 in flight, which resulted in such striking pictures as the one shown here.

Of the thousands of photos Conger has taken over the years, a few stand out in his memory. One was the widely published shot (right) of astronaut Alan Shepard being hoisted to his recovery helicopter.

Lifelong Interest

Dean first became interested in photography when he was 9, and at 14 was earning money with his camera. After graduating from the University of Wyoming in 1950 with a BS degree in education, he became a staff photographer for the Denver Post.

Nine years of news assignments, which included having a camera smashed by an irate gambler and photographing such notables as Truman, Eisenhower and Kennedy among dozens of



HISTORIC HOISTING of astronaut Alan Shepard from spacecraft to helicopter was taken by automatic camera pre-set by Conger, who foresaw the photograph's potential.

others, were climaxed in 1959 when he was named newspaper photographer of the year.

He won the coveted title, presented by the National Press Photographer's Association, in competition with more than 600 other lensmen. The National Geographic job

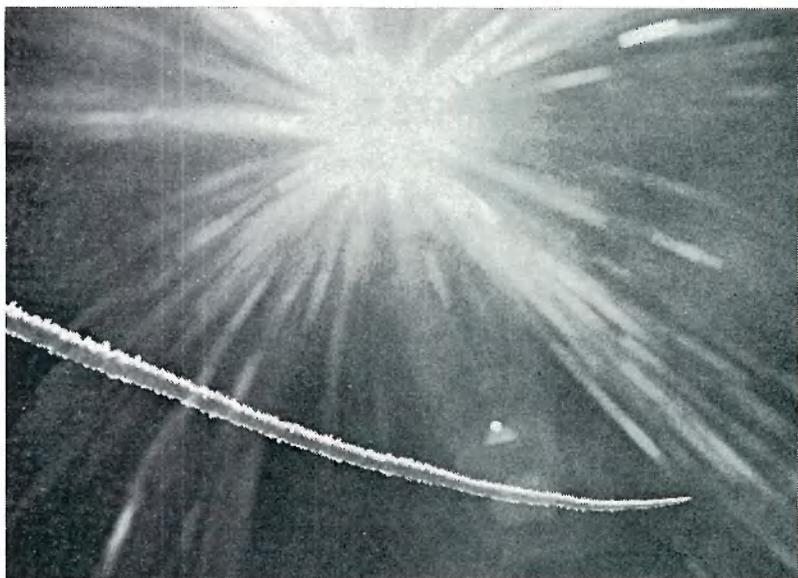


EMOTIONAL EMBRACE of John Glenn and fellow space traveler Scott Carpenter, following Carpenter's recovery last May, was captured by Conger's camera in this epic sequence.



CAMERAMAN CONGER was caught in the act snapping this photo of astronauts Gordon Cooper, left, and Alan Shepard inspecting an inflated space suit in Hanger S. Astronaut Wally Schirra has his back to the camera.

News Photo by Ed Thomas



☆ ★ ☆

CREATIVE CONTRASTS of soaring NASA X-15, left, and an island native hand-carving a boat, right, reveal Conger's versatility. He flew high over California last April in the "mother" B-52 bomber to catch the X-15 seconds after its flight began. Shotgun shafts of sunlight add effect to this rare photo. Dean traveled to the Grenadine Islands following Glenn's orbital flight last February, to picture an islander practicing the ancient craft of boat building via a hand ax. All of Conger's photos on these pages were originally shot in color.



☆ ★ ☆



PROVOCATIVE PORTRAITS of astronauts Alan Shepard, Gus Grissom and John Glenn, taken by Conger during a congressional hearing last year, seem to make the spacemen natural candidates for Mt. Rushmore.

WHAT'S IN A NAME

When Dean Conger was assigned to photograph a story in Italy in 1959, he wired the National Geographic's staff representative in Rome.

The staffer wasn't at home when the message came in, however, so his brother took it. The wire stated: "Conger arriving on Pan Am flight."

Completely bewildered, the Italian quickly called his brother and said, rather excitedly, "You're to meet a large sea eel at the airport."



MONGOLIAN MOUNTAINS serve as effective backdrop for these nomadic herders hunting wild horses near the Gobi desert, in this copyrighted National Geographic photo. Conger spent five weeks deep in Mongolia between the Grissom and Glenn flights, on assignment for the magazine.

offer followed, and in 1961 he was named Magazine Photographer of the Year.

Three Young Congers

Today, when not at the Cape, Dean lives with his wife Lee and their three boys, Eric, 4; Kurt, 3, and Chris, 1, in their Bethesda, Md., home.

For amateur shutterbugs, he suggests taking a lot of pictures to improve through experience.

Dean personally prefers using 35 mm Nikons and Leicas, and he's equally at home shooting color or black and white.

He hopes someday to exhibit his work in a one-man show, but for the present he's too busy making space history live with his epic, storytelling photographs.



STRIKING SILHOUETTES of native fishermen from the island of Mustique in the Grenadines made a superb subject at dawn for Conger's creative camera. This National Geographic photo was made following Glenn's flight last February.

Scientists Plan Mars Trip For Twenty-first Century

Scientists at NASA's Lewis Research Center in Cleveland are designing a nuclear-powered rocket which some day may propel manned flights to Mars, Venus and beyond.

Development of the rocket is in the embryonic stage and further progress depends largely on solving two problems, heat and propellant flow fluctuations.

In a technical paper, NASA scientists Herman H. Ellerbrock, John Livingood and

David M. Straight of Lewis discuss progress in solving these and other problems of nuclear rocketry.

They point out that basically a nuclear rocket vehicle consists of a payload, nuclear reactor and a propellant storage tank.

The propellant, probably lightweight liquid hydrogen, will be pumped through the hot reactor.

As it flows along the material containing the fissioning uranium, the propellant temperature increases, perhaps as much as 5,000 degrees Fahrenheit.

The resultant hot gas is exhausted through the nozzle and provides the thrust to propel the rocket vehicle through space.

Current plans suggest the reactor stage of the rocket vehicle will be started in or near earth orbit.

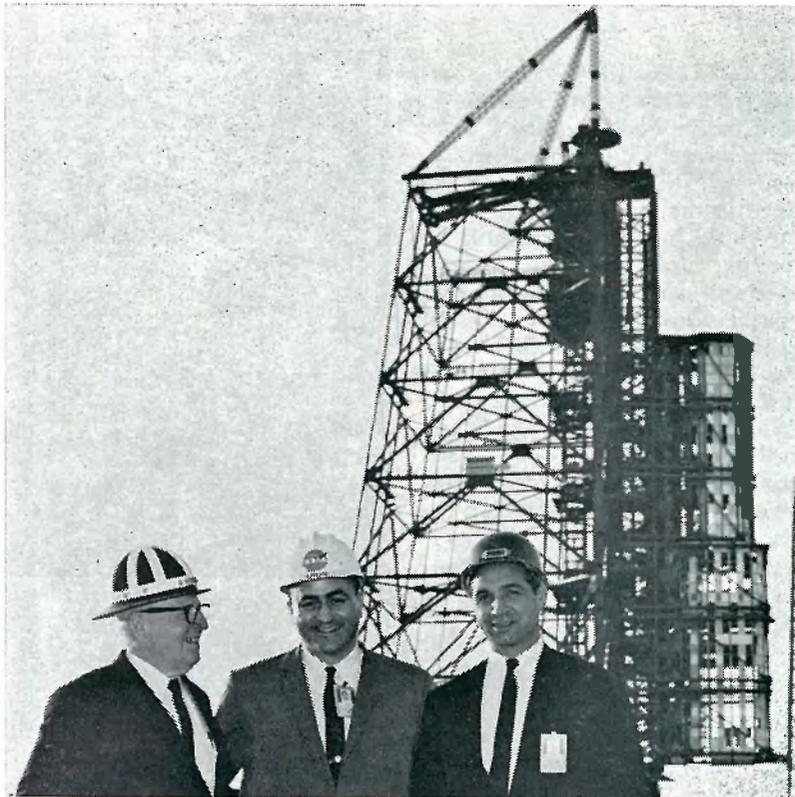
But, they believe, manned flights to Mars and Venus probably won't occur in this century.

MSFC Skyline To Rise

Bids have been opened at the Marshall Space Flight Center for a \$2.5 million, six-story engineering and administrative building.

It will be located 150 feet from MSFC's near-complete nine-story Central Lab and Office Building.

Designed by the Wyatt C. Hedrick architectural firm of Ft. Worth, Texas, it will feature a "curtain wall" type construction, and be completely air conditioned.



CONGRESSIONAL CHAIRMAN George P. Miller, (D-Calif.), left, of the House Space Committee, and Representative Emilio Daddario (D-Conn.), are briefed at Saturn launch complex 37 by Major Rocco Petrone, Chief, Heavy Space Vehicles, during their tour of NASA-Cape facilities.

Space Committee Members Impressed At LOC Briefing

Seven members of the House Space Committee were on the Cape Friday for a briefing of NASA-AMR plans and activities.

Democratic Congressman George P. Miller of California, committee chairman, told

Spaceport News after the briefing: "I'm again very much impressed with what I've seen here.

"It's reassuring to learn of the competence of NASA's leadership and the high morale of personnel, and I think this speaks well for the best interests of our country."

The congressmen and their party were also given a tour of Launch Complexes 34 and 37, and were guests later at a dinner party at Ramon's in Cocoa Beach.

Others Briefed

In addition to Congressman Miller, representatives Olin E. Teague, (D. Texas); Joseph E. Karth, (D. Minn.); Emilio Q. Daddario, (D. Conn.); James G. Fulton, (R. Penn.); R. Walter Riehlman, (R. N.Y.); and Richard L. Roubush, (R. Ind.); were briefed.

Also in their party were Philip B. Yeager, special consultant; and Paul B. Dembling and Jack Brown of NASA Legislative Affairs.

The congressmen visited Patrick AFB Saturday before flying back to Washington.

Sun Intensity Study To Be Made By RCA

NASA has awarded at \$3,690,000 contract to the RCA Service Co., Camden, N. J., to simulate the sun's intensity in space environmental chambers.

The sun's intensity, its light and radiation, in outer space will be simulated by electric - carbon arc lamps projecting through a system of self-contained mirrors and lenses along the top and side of two conical chambers.

The chambers will be used to measure solar radiation effects on the Apollo spacecraft and will provide the space environment for training astronauts.

civil service
ASTRONAUT

**Neil Armstrong
NASA**

3

First career civil servant selected to be an astronaut, Armstrong, 32, was assigned to NASA's X-15 research rocket plane program from its start in 1954. The native Ohioan has flown the X-15 up to 3,715 mph and to an altitude of 207,000 feet. A Purdue University graduate in aeronautical engineering, he has made substantial engineering contributions to the X-15 and other NASA test programs. The former Navy wartime jet-fighter pilot has logged 2,400 hours in more than 50 types of aircraft.

The Federal Civil Service

1893-1963

Four Score
Years of
Service to
America

LOC To Award \$400 Million In Contracts During This Year

(Continued from Page 1)
cal Assembly Building (VAB) for Launch Complex 39 in the Merritt Island Launch Area, \$3.3 million.

The VAB is the structure where the Advanced Saturn vehicle and the Apollo spacecraft will be assembled vertically and checked out prior to the trip to the launch pad.

The contract for design of the VAB went to URSAM, a combine of four New York architects-engineers — Urbahn-Roberts-Seelye-Moran. The building will be 524 feet high and will rank among the 50 tallest buildings in the world. Construction contracts for the structure will be awarded in the Summer and Fall of 1963.

Meanwhile, work is progressing rapidly on the NASA-Merritt Island Launch Area of which Launch Complex 39 is a major facility.

CAUSEWAY

(Continued from Page 1)
late the flow.

Eastbound traffic will have a longer green light in the mornings, and the timing will be switched in the afternoons to allow westbound traffic a longer period of time.

Work on the super, \$4,095,-259 toll causeway to Canaveral also is progressing on schedule and is expected to be completed by August 15.

Construction on the 13 1/2-mile, two-lane road is divided into three segments.

The Cobb Company, which also has a contract for part of the project, is more than 55 per cent along on a six-mile stretch from State Road 520 west of Cocoa to the Indian River. This portion, begun last March, includes a cloverleaf overpass across U.S. 1, north of Cocoa.

The middle section, under contract to Powell Brothers of Fort Lauderdale, is nearly half completed. Begun last May, it runs two miles across the Indian River to A1A on Merritt Island.

The Houdalle-Duval Company of Jacksonville has the contract for the final 3 1/2 miles — from A1A across the Banana River into the horseshoe curve just south of the Cape.

The Corps of Engineers is engaged in acquiring land on Merritt Island for NASA. Acquisition of the first parcel of land — 72,400 acres — is scheduled for completion by August, 1963. An additional 14,800 acres will go into the acquisition stage when parcels are identified and tract maps are prepared. The total estimated cost of acquiring all the land is \$82,750,000.

The Gahagan Dredging Company has completed one of two large contracts it has for work in the Area. The \$895,000 contract was to provide fill for a three-mile-long causeway connecting Cape Canaveral and the Orsino industrial area on Merritt Island. Later this month, a contract will be awarded for the roadway and bridges on the causeway.

Gahagan's second contract — for \$3,618,500 — is for dredging an access channel to the VAB and using the fill to provide a three-mile crawler roadway to one of the three launch pads for Launch Complex 39 as well as base for the first of the pads to be built. This work is well underway and is progressing on schedule.

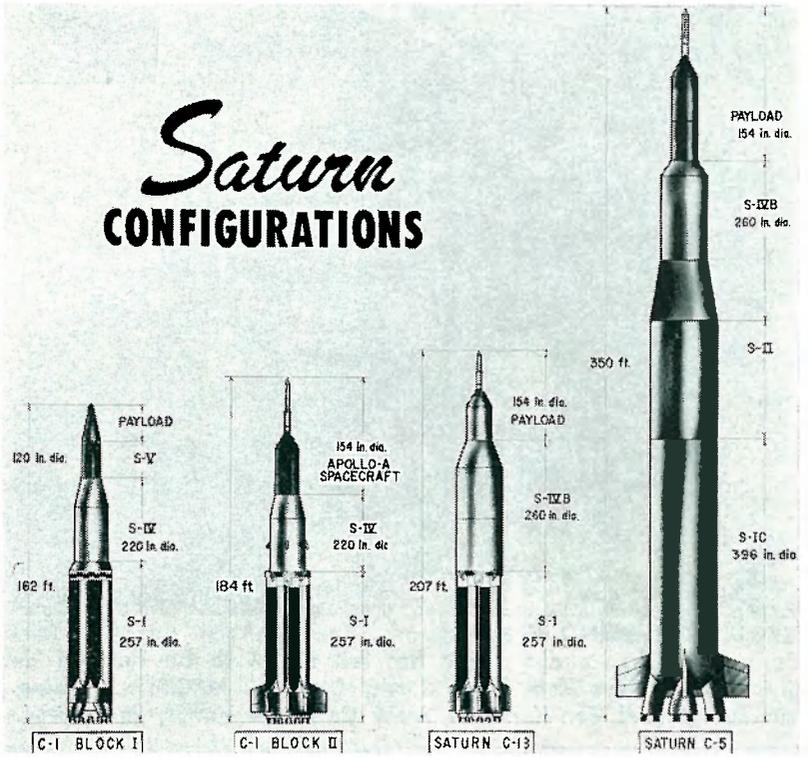
The crawler roadway for which Gahagan is providing fill lies between the VAB and the launch pad sites. Over the road will travel a fully-assembled Advanced Saturn with Apollo spacecraft and its launcher-umbilical tower.

The vertically-assembled Saturn and its LUT will be moved from the VAB to the launch pad by a unique machine called a transporter-crawler. Heavy equipment manufacturers have been asked to submit proposals on the huge tracked vehicle and a definitive contract to build two transporter-crawlers will be awarded by March 1.

Construction on a second "leg" of the NASA causeway — which ultimately will provide a limited access road from Cape Canaveral to the mainland — will begin later this year. It will span the Indian River from Merritt Island to the area north of Cocoa.

Other major projects planned for 1963 include a headquarters building for the

Saturn CONFIGURATIONS



Saturn ABCs Spell Sense

With SA-1, 2, and 3 of Saturn's C-1, Block I series successfully tested, the arrival later this year of SA-4, Block I, and SA-5 and 6, Block II is eagerly awaited, for their flights could speed the way for C-5, which will use RP-1 in five F-1 engines instead of eight H-1s.

Chances are by now you've sunk in this perplexing potion of alphabet soup. Surprisingly, however, it all fits into a sensible statistical system NASA uses to denote its rockets and rocket systems.

To begin with, Saturn was named after the planet, which is next in order from Jupiter in our solar system, and since the giant rocket's predecessor, Jupiter, was named after its planetary namesake, Saturn was a logical choice.

The Saturn C-1 vehicle is a two-stage rocket whose first section, or booster, develops 1,500,000 pounds of thrust. The booster is designated S-1, and the smaller, upper stage is called S-IV.

The "C" in Saturn C-1 is derived not from the word configuration, as is generally believed, but from the fact that the rocket happened to be the third Saturn vehicular concept under consideration.

Saturn "C" denotes a concept of an S-1 booster topped with an upper stage using liquid hydrogen (plus oxygen) as a propellant.

In a move that somewhat alleviated the C-situation, the C-2, 3, and 4 configurations were dropped. This led NASA to the C-5. With a cluster of five F-1 engines powering it, the booster stage will develop 7,500,000 pounds of thrust.

Getting back to C-1, the first four flight models, carrying dummy upper stages, are grouped as Block I. Block II begins with SA-5, which will be the first to carry fins on the booster and the first to have a live S-IV second stage.

An unmanned, dummy Apollo spacecraft will become the nose section of the last two or three of the 10 flight-test models. To boost the fully-fueled three-part Apollo spacecraft into earth orbit, NASA has come up with a modified vehicle, the Saturn C-1B. This is simply an S-1 booster topped with an S-IV-B second stage.

After the progression from C-1 to C-5 is complete, the next step is Nova — but that's another story.

Launch Operations Center, the first launch pad for Launch Complex 39 and related launch support equipment, supporting utilities, a

cafeteria, fire station, rail-road, warehouse and maintenance facilities — all to be located in the Merritt Island Launch Area.



GROUP GATHERING of Procurement and Contracts people at Ramons was to honor IBM 632 operator Carla Paddock, standing, who has left NASA to be married Saturday. Left to right are Martha Strickland, Berrye Reed, Roy Curtis, Gertrude McClintock, Elaine Krampert, E. E. Murchuson, Marlene Lueders, Daniel Van Kammen, Mary Casa, Bill Harris, Emily Watts and Doris Bucher.

Seeking News? Meet Our Reps

Names of Spaceport News correspondents are listed below. Anyone interested in submitting articles or news tips to the News should channel them through their office correspondent.

In alphabetical order, correspondents are, Sandra Arnette, Administrative Services; Ruth Bernstein, Heavy Vehicles; Carol Bomstead, Personnel; Frank Childers, Electronic Measuring and Tracking Office.

Gloria Darwin, Central Office; Mary Fagan, Facilities; Prosper Fagnant, Dr. Debus' office; Sandy Farmer, Reproduction; Dick Foster, Test Support Office; Marge Holt, Reliability.

Tillie Huggins, MSC Social Club; Nancy Hunter, JPL; Maryln Krause, Technical and Scientific staff; Bettye Latham, Protocol; Joan Liddy, Public Information Office.

Bobbi Miller, Industrial Relations; Jerry Moody, Administration and Services; Mildred Music, Property Management; Fred Myers, Audio Visual.

Jean Myers, LVOD; Mrs. Paul Taeger, NASA Wives Club; Charles Orrill, Personnel; Ellen Pordon, Electrical Engineering and Guidance Control Office.

Juliet Ray, Light/Medium Vehicles; Gordon Robinson, Security; Rene Toulotte, Automatic Data Processing.

Jessie Trubia, Safety; Reggie Vietor, GSFC; Lorene Virden, Financial Management Office; Sue Weakly, Procurement and Contracts; Kent Wetzel, Transportation; Mrs. Wisseneger, Legal Office; Wright Kerns, Community Development; and Carol Yancey, Program Coordination and Management.

Employment Deadline

Office chiefs with requirements for summer trainees should submit memo requests to Sidney Harbin (LO-PR) by next Wednesday.

The summer employment program is extended to college-level students in the engineering, physical science, or other professional fields from late May to mid-September.

TOMORROW LAST DAY FOR JUMP ENTRIES

Deadline for submission of entries for the William A. Jump Award is tomorrow.

This meritorious award is presented annually in recognition of outstanding service in the field of public administration, and for notable contributions in this field to the efficiency and quality of public service.

Office chiefs are invited to recommend the nomination of any employee who had not attained his or her 37th birthday before December 31, 1962, and whose performance over a considerable period of time demonstrates:

- (1) Unusual competence and interest in public administration.
- (2) Endowment for leadership.
- (3) Creative thinking.
- (4) Close adherence to the basic principles of enlightened public service.

Recommendations should be submitted to the Secretary, Incentive Awards Committee, LO-P.

Mariner II Goes Mute

Mariner II, its mission a spectacular success, has lost its voice in space after 130 days of flight.

In transmitting useful information over more than 54 million miles, the 447-pound craft has broken all previous long-distance spacecraft communication records.

“Would a woman have the better chance of surviving a moon trip because of her smaller body and the ability to put up with the monotony?”

Lynn S.
Seattle, Wash.

PURELY PERSONAL

Mrs. Kurt H. Debus, wife of the LOC Director, served as hostess Friday at a luncheon for the wives of congressional house space committee members.

The luncheon was held at the Cape Colony Inn and was attended by Mrs. Esther P. Miller, wife of the house space committee chairman, and Mrs. Philip Yeager, wife of the special consultant for the house committee.

MSC receptionist Ruth Pollicchio became the bride Saturday of Joe Kaplet. She was given a shower last week by 25 of her friends. Ruth will return to work following her honeymoon.

Friends of FMO cashier Pauline “Ruddy” Rudolph gave her a surprise birthday luncheon Friday at the Surf.

Gail Mason of Technical Information Office was given a going away luncheon at Ramon's Friday. Girls in her office presented her with a watch.

Miss Ruby Legg, Facility Management Office, is leaving the Cape to work for the Quality Assurance Division, MSFC.

Several employees took advantage of the recent holidays to move into new homes. Among them were James Murphy, LO-FEC, (Indian Harbor Beach), William Mountz, LO-FEC, (Bel-Air), and Steve Harris, LO-FEC, (Bel-Air).

NASA NEWCOMERS

NASA-Cape employees have increased by 14 since last week:

Instrumentation and Planning; Peter Lefferson; and Belzonia Corbitt.

Facilities: Malvin Langley and Joe Nelson, Jr.; Mel Bryan; Victor Ehlers; James Manning; Maxine Hayes.

Launch Vehicle Operation Division: Donald A. Scoville; and Alfred D. O'Hara.

Support Services: Barbara Hasting.

Personnel: Claire Merritt.
Procurement and Contracts: Vincent Pescatore.

Program Coordination: Patricia S. Hall.

Sale of Florida license tags, which began January 2, will continue through February 20.