SPACEPORT NEWS

Volume 2, Number 32 | NASA Launch Operations Center, Cape Canaveral, Florida | August 8, 1963

DR. DEBUS APPROVES LOC ORCANIZATIONAL STRUCTURE

Echo I

Remarkable Old 'Gasbag' Still Going

Durable Echo I—the NASA satellite which probably has done more to "sell" the public on unmanned space projects than any other orbiter — will be three years old Monday.

It is still girdling the globe, but its once-taut plastic skin is now a wrinkled old gasbag.

Although it is a passive communications satellite, Echo has been used for more than 150 experiments.

It is perhaps the most popular of all U.S. spacecraft, simply because people could —and still can—see it in orbit.

Made of polyester plastic only .005 of an inch thick, Echo makes its earth-circling run every 115 minutes — or about a dozen circuits a day.

NASA scientists predict the giant balloon will be pulled into the earth's atmosphere sometime next year and burn up.

But as long as it lasts, Echo I will continue to please ground observers as it plods along its orbital treadmill above earth.

* * *

CENTER DIRECTOR OUTLINES DIVISIONAL RESPONSIBILITIES

A complete organization structure has been approved by Dr. Kurt H. Debus, LOC Director.

The new organizational elements implement the "first level" structure approved April 24th by NASA Deputy Director Dr. Hugh L. Dryden.

This is the first time LOC has had a firm organizational structure on which to build.

Dr. Debus said "I consider this a major step forward in further establishing the functional responsibilities of each organization element."

Dr. Debus' approval constitutes a detailed implementation of the basic LOC organizational structure approved in April, and serves to further identify the division of responsibilities between the major organizations previously approved by NASA headquarters.

Under the organizational plan approved last April, staff officers reporting to the Director included Technical Staff, Test Support Office, Public Affairs Office and Safety Office.

Major management and operating elements reporting to the Director include four assistant directors—Launch Vehicle Operations, Plans and Project Management, Administration, and Instrumentation.

Also included in the major management and operating elements are the Base Operations Division, Launch Support Operations Division, Quality Assurance Office, Launch Support Equipment Engineering Division and Fa-

(See Organization, Page 3)

BREVARD COUNTY Mosquito Control District entomologist Bob Lee gets set to drop a sack full of minnows into a mosquito-breeding area on Merritt Island. In addition to "fish bombing" runs, helicopters are used for aerial inspection work. For the full story on NASA's all-out war on mosquitoes, turn to page 4.

DESERT'S HOT — SO'S HOUSTON

NASA's nine "new" astronauts are in the Nevada wastelands today—for desert survival training.

Sand temperatures may reach as high as 130 degrees this week, but the nights are cool — as low as 36 degrees.

The astronauts are wearing homemade burnooses — Arabian-type hoods — to prevent the blistering sun from sapping all the moisture from their bodies.

They're also learning how to preserve precious water supplies, and how to spot poisonous snakes, spiders and other desert hazards.

Prior to beginning their training, the astronauts didn't seem fazed by the searing heat they would face. They explained it gets mighty hot at their Houston Manned Spacecraft Center home base.

SPOTLIGHT

WHERE ARE THOSE LETTERS?

In a continuing effort to improve Spaceport News, and make it as much a medium of expression by and for NASA — Cape area employees as possible, we'd like to open a letters-to-the-editor feature, in which anyone with expressions to share in print would have an outlet.

Since this is an official NASA publication, there must be, of course, a few ground rules.

Due to space, such letters must be limited to 200 words or less, and the right to select letters for publication must be reserved. This does not mean we'll discriminate or avoid controversy.

On the contrary, controversial subject matter makes the best type of thought-provoking editorial copy, and we welcome it. But where basic policy is involved, discretion must be used.

What subjects should you write about? The ones on which you have strong feelings that you'd like to express. If you want to compliment, discuss or criticize, it makes no difference.

We might suggest anything to do with space should prove of interest to a wide range of employees. Community topics would also be good subjects.

Timeliness, perhaps, should be considered too. For instance, we've received a couple of lengthy contributions on the subject of women's role in space, a subject well covered.

Letters must be signed, but if you state a preference for having your name withheld, we'll honor it.

If the response is steady, we'll open a regular weekly column. Otherwise, the letters will be published periodically.

In either case, we'd like to hear from you — in 200 words or less.

WORTHWHILE SPENDING?

" . . . a nation which spends in excess of $20 billion a year on recreation alone can't spend $5 to $10 billion dollars a year on space, without decreasing the number of yachts or even the number of golf clubs in use. It is worth noting, moreover, that we were not spending enough on schools, on medicine or housing, even before we had a space program and there is no assurance that we would be doing even as much on these essentials if it weren't for the space program. In fact, the space program generates and stimulates the use of funds for those other essentials."

Dr. Edward C. Welsh
Executive Secretary
National Aeronautics
and Space Council

SPACEPORT NEWS

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

LOC'S RAYMOND A. WOODBERRY accepts a $100 check on behalf of the Brevard Training Center from NASA Women's Club members (left to right) Kay Fiddler, Mary Cash and Emily Watts. The money, proceeds from the club's spring dance, will be used for special equipment.

SPACE ALMANAC

A CHRONOLOGY OF EVENTS IN SPACE EXPLORATION AND RESEARCH.

5 Years Ago

August 15, 1958 — The SATURN Project was initiated by ARPA order to Army Ordnance Missile Command, and assigned to Redstone Arsenal.

3 Years Ago

August 10, 1960 — DISCOVERER XIII was launched successfully into a polar orbit.

1 Year Ago

August 11, 1962 — USSR launched VOSTOK III into orbit piloted by Maj. Andrian G. Nikolayev and August 12 launched VOSTOK IV, piloted by Lt. Col. Pavel R. Popovich. Travelling in nearly the same orbit, they made radio contact within an hour of VOSTOK IV's launch.

Women's Club To Meet

The monthly meeting of the NASA Women's Social Club will be held next Wednesday at the Holiday Inn. Members desiring dinner preceding the 7:00 p.m. meeting will meet at 5:30 p.m. in the dining room.

Several Categories To Close Wednesday For Week's Inventory

Effective 12:00 noon, next Wednesday, August 14, the following supply categories will be closed for inventory purposes:

122 Packaging Materials
123 Gases
124 Chemicals
126 Building Supplies
128 Oils and Lubricants
131 Spare Parts
129 Photographic Supplies

Routine issues will be stopped for a period of five days. They will begin again Monday, August 19.

Emergency requirements which may arise during the closed period should be brought to the attention of Paul T. Cornelius, LO-BS, UL3-5201.

Applicants Sought

The NASA-MILA Exchange Council is looking for a man to manage their exchange activities.

Extensive specialized experience in large scale construction site vending machine and multi-location food services contracts is required.

Applications will be received until August 25, and selection will be made by September 1. Salary is open.

Organization

(Continued from Page 1)

cilities Engineering and Construction Division.

One new organization has been added to the "first-level" group — NASA Daytona Beach Operations.

This office will serve as the NASA representative at the General Electric Apollo Support plant site, and will coordinate technical and contractual operations between GE and NASA.

Periodic changes to the overall organization structure are expected. Such changes should be processed and coordinated with LOC procedure 3-7. NASA headquarters approves all first level changes, and Dr. Debus approves any changes other than first level.

At the lower levels of the organization, the functional breakdown is:

NASA-Daytona Beach Operation — Control and Reliability Assessment, Programming and Production Control and Administrative Services.

Test Support — Plans, Policies and Procedures, and Administration.

Public Affairs Office—Protocol, Public Information and Community Development.

LOC's Safety Office — Flight Safety Engineering, Explosives Safety Engineering and Industrial Safety Engineering.

Assistant Director for Plans and Projects Management — Plans, Schedules, Saturn I, Saturn V, Reliability, Special Projects, Resources and Program Support.

Assistant Director for Administration—Security, Chief Counsel, Management Analysis, Industrial Relations, Personnel, Procurement and Contracts, Technical Information, Supply Policy, Financial Management, Administrative Services and Traffic Management and Policy.

Assistant Director for Launch Vehicle Operations—Technical Planning and Liaison, Mechanical and Propulsion Systems, Electrical Engineering Guidance and Control Systems and Electronic Engineering and Instrumentation Systems.

Assistant Director for Instrumentation—Planning and Resources, Data Acquisition and Systems Analysis, Engineering Support and Radio Frequency and Telemetry.

Base Operations Division—Administrative, Plans and Programs, Transportation, Supply, Communications, Security Operations and Medical.

Launch Support Operations Division — Contract Surveillance, Administration and Planning, Launch Complex Operations, Technical Support, and Propellants and Ordinance Operations.

Quality Assurance Office Administrative Support, Receiving Inspection and Technical Support.

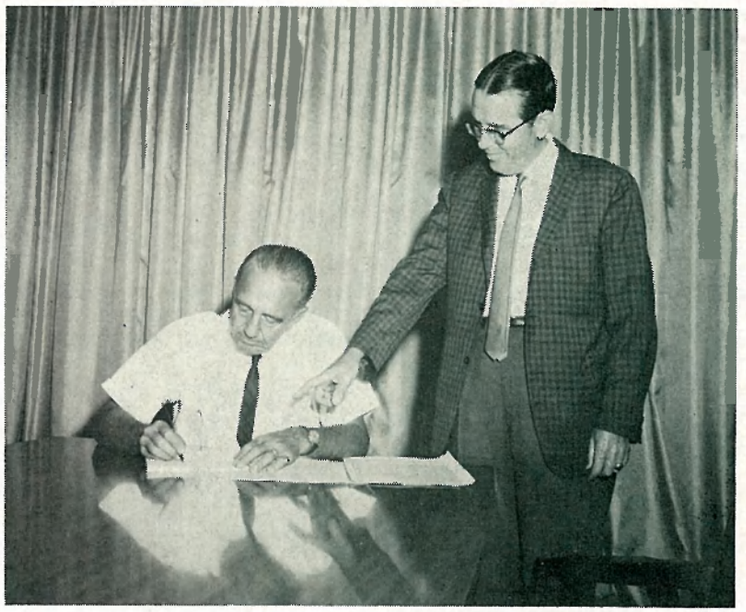
Launch Support Equipment Engineering Division — Planning and Programming, AMR Installation and Launch Systems Reliability.

Facilities Engineering and Construction Division — Advanced Studies, Liaison, Administrative, Drafting and Drawing Files, Facilities Programming, Planning and Coordination and Master Planning and Real Estate.

Brochures listing all organizational elements and including supervisor names will soon be issued to all employees.

Spaceport News will also follow up periodically with articles on individual organizations.

The Personnel Office will initiate action to re-assign all LOC employees to their newly created organizations.



LOC DIRECTOR Dr. Kurt H. Debus signs approved organizational structure in presence of the Assistant Director for Administration, C. C. Parker.

Skivvie-Clad Seamen Track Syncom Flight

One of the early tests after NASA orbited Syncom II is distinguished in that it marked the first time a communications satellite circuit has been operated by a crew in underwear.

Shortly after Syncom was injected into near synchronous orbit July 26, observations indicated that the spacecraft's temperature was low enough to permit testing earlier than had been expected.

This early test was not anticipated by crewmen who had just previously been dismissed from duty stations on the Kingsport, the Syncom communications ship anchored in Lagos Harbor, Nigeria.

The skipper sounded general quarters, the crew responded and the station was "on the air" within eight minutes.

This led the director of the ground stations to state, "I'm sure that this is the first time that a communications satellite circuit has been operated by a total crew standing by in skivvies."

Michaud To Speak

Gerard A. Michaud, Chief of LOC's Procurement and Contracts Office, will speak Monday night to members of Pan American's Management Club at the Cape Colony Inn.

His topic: "Management and the Managed Man."

Mississippi Face-lifting On Schedule

The Merritt Island Launch Area is not the only NASA property undergoing a major facelifting these days.

Following many months of planning and designing facilities, the construction phase of work at the Marshall Space Flight Center's Mississippi Test Operations is well underway.

The ground testing of large rocket engines and stages at this multi-million dollar facility is to begin in 1965, four years following NASA's selection of the site as a key installation supporting the manned space exporation program.

Nearly $16 million dollars worth of construction is now underway or will be initiated in the next few weeks. More than 300 persons are at work at the site — a number that will be increased to about 3,000 when construction is at its peak next year.

Piney Woods

Huge rocket stands will soon rise in piney woods and cypress swamps previously known primarily as timber, fishing and hunting country.

NASA is erecting the test facility on 13,500 acres of purchased land in Hancock County, Miss.; another 128,000 acres is being leased as a surrounding buffer zone.

Following is a summary of present MTO activity:

A 250-acre boat harbor where barges loaded with Saturn V moon rocket engines and stages will arrive for testing has already been cleared and a pilot channel has been cut for more than a mile into the harbor area from the East Pearl River.

The construction dock site has been cleared also and work is moving forward on the excavation of a lock.

Clearing has begun on an 850-acre Saturn V complex where four test positions to static fire the Saturn V S-1C booster and S-II second stage will be built.

The base will employ about 2,500 operational personnel in 1966.

Peaceful NASA Declares War — On Mosquitoes

BREVARD Mosquito Control District pilot-inspector Bill Cesary grimaces at gallon jar full of larvae. News Photos by Russ Hopkins

DIPPING PAIL into temporary pond on Merritt Island, entomologist Bob Lee inspects for fresh mosquito broods.

NASA, normally a peace-loving agency, has declared war.

But the earthbound enemy is one detested by all mankind — the ever-pestering mosquito.

The "war," more exactly, is a cooperative program whereby Brevard County, the state, LOC and the Air Force are teaming up to wage battle with mosquitoes in the 88,000-acre Merritt Island Launch Area.

The main breeding grounds for the salt-marsh mosquito include 14,262 uncontrolled acres in North Brevard County, and 1,060 acres in South Volusia County.

And, in addition to the salt-marsh mosquito areas, there are hundreds of acres capable of producing fresh water species.

Incomprehensible

The actual severity of the problem is almost unbelievable to all but natives of the area.

There have been times, for instance, when swarms of mosquitoes were so thick they actually extinguished kerosene lanterns used by commercial fishermen at night.

The "landing rate" in bad areas is often more than 500 mosquitoes on a person in one minute.

Last year, when the Florida Entomological Research Center in Vero Beach needed a large number of live mosquitoes for tests, two entomologists were dispatched to sweep adults out of the grass with nets after a heavy emergence. In one hour they collected enough live mosquitoes for their experiments. The mosquitoes, when killed, weighed 3½ pounds.

Salt marsh mosquito egg deposits may run as high as 2,000,000 per square foot.

One acre of salt marsh is easily capable of producing 50,000,000 adult mosquitoes within a week after a heavy rainfall.

Twice As Fast

In recognizing the problem's potential, the Joint Community Impact Coordination Committee proposed a solution.

Under the guidance of LOC's Colonel Clarence Bidgood, chairman of the subcommittee on mosquito control, a study was made, and a cooperative program involving county, state, Air Force, and LOC inaugurated.

Such a program involves both temporary and permanent control measures, thereby giving immediate protection now while the permanent control work is being completed. This will cut in half the previous estimate of six years to accomplish reasonable mosquito control at MILA.

Terms of Agreement

Terms of the agreement call for NASA and the Air Force to provide two draglines and one bulldozer to accelerate the permanent control work being done on MILA by the county. NASA will also supply the insecticide used for spraying operations.

The state's contribution provides direct financial aid and scientific research for mosquito control work.

The Brevard Mosquito Control District, directed by Jack Salmela, will continue to work at MILA, except for the operation of ground fogging machines, which will be done by LOC.

The county has agreed to have four of its draglines, two spray planes and a helicopter — for inspection purposes — working in MILA.

Helicopter inspection is the key to successful larvaciding (poisoning of the larvae) in the vast MILA breeding areas. The mosquito eggs hatch a few minutes after being covered by rain or windtides.

Green Pellets

When large numbers of larvae are found, the breeding areas are dusted with poisonous green pellets by airplane. The larvae poison, however, is not harmful to fish or wildlife. In fact, while the inspection flight and post-treatment checks are being made by helicopter, the inspectors drop plastic bags containing larvae-eating minnows into the pot holes.

The mosquitoes found in MILA do not lay their eggs on water, but on moist soil in areas periodically flooded by tides or rainfall.

The method most effective in eliminating mosquito breeding on MILA is impounding. Dikes are constructed to capture rainfall runoff from high ground, to flood breeding areas during the peak summer months. When marshes are flooded, mosquitoes do not have a suitable place to lay eggs. In addition, the minnow population increases, forming a second line of defense.

555,500 Feet

The Brevard Mosquito Control District estimates 555,500 feet of dikes, averaging four feet in height by 18 feet in width, will be needed to flood 13,850 acres of swamp, with one foot of water.

The mosquito problem and the corrective measures for its solution are immense. But through the initiation of the master cooperative control plan the salt marsh mosquito may soon lose much of its notorious bite.

ONE OF THE LEAST glamorous, yet most important methods of conquering mosquitoes is through dragline operations, which cut new drainage canals and impound water via dike buildups.

High Flyers

People have tried just about everything to escape mosquitoes. In fact, once in Pensacola, citizens built a 12-foot-wall, because someone had said the pesky insects couldn't fly that high.

Salt Marsh Variety Most Common To Cape Area

About 100 years ago when the statehood of Florida was being debated, the Honorable John Randolph of Virginia stood in Congress to declare that Florida could never be developed, nor would it ever be a fit place in which to live.

He described it as a "land of swamps, of quagmires, of frogs and alligators and mosquitoes."

Truer words were never spoken. These were dark days as far as human existence was concerned.

* * *

It can be said without fear of contradiction that mosquitoes have caused more deaths and discomfort than any other known insect in Florida.

Accounts of life in the state before the turn of the century relate times of panic and fright, including the devastation of one small town on the Gulf Coast, Port St. Joe.

* * *

The development of Florida was retarded by epidemics of malaria, yellow fever and dengue — all spread by mosquitoes. A typical example was recorded in the Fernandina epidemic of 1877 when out of a population of 1,632, some 1,446 contracted yellow fever.

* * *

The third worst disaster in Florida history — 75 years ago — was caused by mosquitoes — the yellow fever-bearing species. The epidemic of 1888 paralyzed Jacksonville, more than 4,700 people were infected, and 412 died.

* * *

There are as many different species of mosquitoes as there are counties in Florida — 67.

* * *

The two most common species found in the Canaveral area are Aedes taeniorhynchus and Aedes sollicitans, both of which are commonly referred to as salt-marsh mosquitoes.

They are migratory, and although their flight range varies, a distance of 10 to 12 miles is not uncommon, and they have been known to travel 25 miles.

* * *

When it has rained for several days, is cloudy, and there is a west wind blowing, it's time to head inside. These are the conditions that bring mosquitoes out in swarms.

* * *

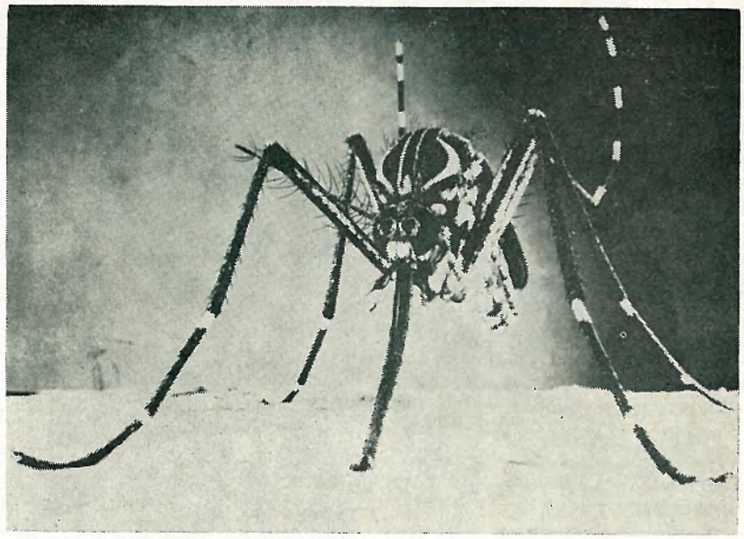
Believe it or not, 1963 has been a relatively light year so far for mosquitoes.

* * *

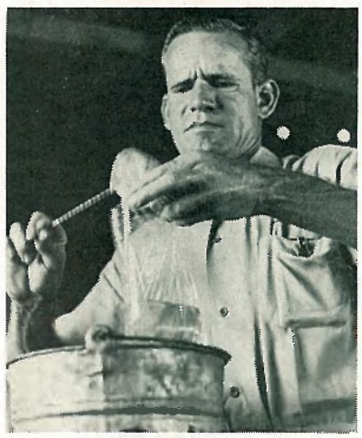
The prime mosquito season is from April to late October.

* * *

One of the factors responsible for Florida's rapid development has been successful mosquito control.



COMMON ENEMY is the pesky, grotesque insect above. The two most common species found in the Canaveral area are Aedes taeniorhynchus and Aedes sollicitans — both more commonly known as salt-marsh mosquitoes.



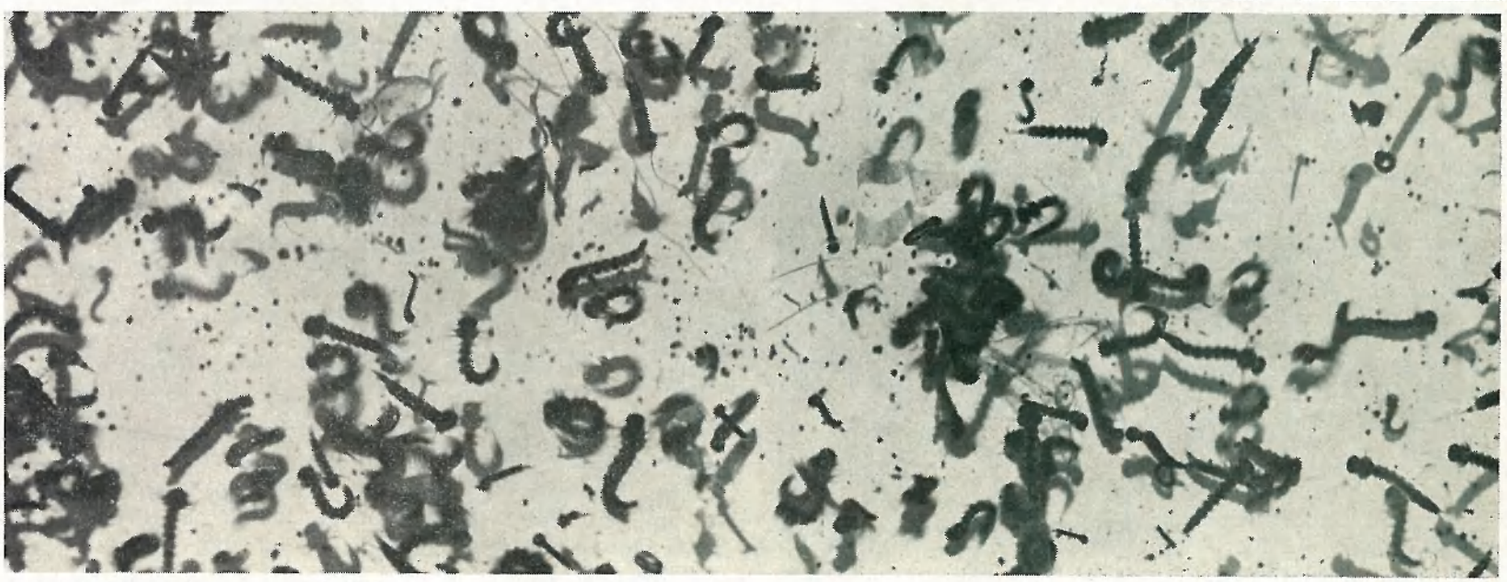
ENTOMOLOGIST Bob Lee fills plastic bag full of minnows for air drops into mosquito-breeding marsh areas on Merritt Island. The fish feed on larvae.

Want To Raise Them? — Here's How —

You can raise your own mosquitoes at home by allowing water-collecting rubbish and debris to accumulate on the premises.

Keep plenty of bottles, tin cans, bird baths, boats, old bath tubs, stopped up gutters, rain barrels and the like around your house.

By doing so you will be guaranteed to have the finest crop of mosquitoes in your neighborhood, and you can walk out in your yard any evening and show them off to visitors.



CLOSEUP VIEW shows several different stages of mosquito larvae breeding. The insects develop about a week after hatching.

Profile: Robert H. Gray

Goddard's Cape Boss Keen On Space

The fact that 19 successive Delta launch vehicles have performed flawlessly in placing a variety of unmanned spacecraft into orbit hasn't happened by mere chance.

The remarkable record has resulted only through the painstaking efforts of hundreds of NASA and contractor employees.

No one is more keenly aware or appreciative of this concentrated team effort than the man most directly responsible for getting the overall job done — Robert H. Gray, Chief of the Goddard Space Flight Center's Field Projects Branch at Cape Canaveral.

Simple Philosophy

Gray's philosophy on the Delta successes is simple: 100 per cent checkout assurance that everything on the vehicle and spacecraft is in perfect working order before launch.

"During the countdown," he says, "if we get any minute indication that something isn't normal—not necessarily that something is wrong, but that it isn't absolutely correct —we won't proceed until we're satisfied it has been thoroughly checked, and, if necessary, corrected.

"Our flights are for the sole purpose of placing scientific payloads into orbit, and as such, must be completely successful to fulfill the mission.

Redouble Efforts

"And, as spacecraft become more complex and expensive —some of them will cost more than their boosters — we must redouble our efforts to ensure that everything humanly possible to accomplish a successful mission is done."

Had it not been for this intensified persistence in assuring maximum conditions on every nut and bolt, from the base of the vehicle to the tip of the spacecraft, Delta's string of successes would have ended — abruptly and spectacularly — at seven.

It was during the last six minutes of the countdown in April 1962, of the UK-1, Ariel satellite launch, that an abnormal condition was indicated as the second stage was being pressurized.

Gray, applying his "100 per cent sure" philosophy, ordered the count halted for closer examination, than scrubbed just on the speculation that something serious was wrong.

As it turned out, there was enough of a gas leakage in the stage's tanks that would have, had the pressurization test lasted another minute, blown the Delta and its precious spacecraft to smithereens.

Delta, however, is just one of the three vehicles under the technical management of Gray and his staff of 80 scientists and engineers at Canaveral. The others, Agena and Centaur, are larger and are designed to carry more complex and expensive spacecraft into orbit.

Responsibilities

Gray's responsibilities as Chief of the Field Projects Branch, begins with the Canaveral arrival of the booster — usually three to four months in advance of the launch date.

GSFC personnel then monitor and direct the pre-launch preparations and launch operations of the boosters and the various spacecraft.

Their launch schedule, already NASA's busiest, will increase tempo to an average of a mission every two weeks next year at Canaveral.

And, Agenas will be launched from the Pacific Missile Range in '64, to place the first Nimbus and POGO, (meteorological and geophysical satellites), into orbit. These also will be conducted by the GSFC Field Projects Branch.

Gray watches a flight.

Gray, is a veteran of early space activity. After earning a degree in Physics from Allegheny College in his hometown, Meadville, Pa., he worked on rocket engines for Bell Aircraft. Captivated by the exciting and limitless potential of space exploration, he joined the Naval Research Lab in 1955, and began work on the Vanguard program.

He was Vanguard launch director from 1955 to 1959,

In reflecting on a crowded career that has included the operational direction of 22 successful satellite flights and participation in more than 40 launches, Gray considers the Vanguard failure of December 6, 1958, his biggest disappointment.

"I think probably the Echo I flight (August 12, 1960) was perhaps the most satisfying," he says. "It was the first satellite people could actually see, and I believe it did a lot toward winning public support of our programs.

Bright Future

Gray believes there is a big future for unmanned satellites because they can acquire large amounts of data over long periods at a relatively low cost.

But he continues: "There is a great deal of work to be done. In fact, we now have Delta vehicles programmed through 1967. And, within the next year or two, in addition to the communications, observatory-type and meteorological satellites, we'll have Surveyors to be soft-landed on the moon and a Mariner flyby of Mars.

"For all of these launches our goal is not to make a large percentage of them work. It is, rather, to make them all work. That's what they are designed for.

"One very gratifying reason I have faith we can do this is the extreme interest and dedication of our people. They're not here because this is just another job. They believe in their work. And it's their sincerity and effort that makes my job easier."

What Gray didn't add was how much of their inspired enthusiasm has resulted from the contagious example set by their dynamic boss.

'The most satisfying launch? . . .

. . . I guess it was Echo . . .

People could see it in orbit."

No Space Volunteers

Although their father has been an enthusiastic believer in the great potential of space exploration for years, there are no aspiring astronauts or astronettes among the six children of Bob and Betty Gray.

Dan, Janet, Bruce, Jennifer, Susan and Gary, their dad believes, have been perhaps too close to the programs to be overly impressed by them.

Space Experts Predict Lunar Sub-Divisions By 2063

Where will we be in space 100 years from now?

This was the question put to aerospace experts recently during General Dynamics-Astronautics' fifth anniversary celebration in San Diego.

NASA's Deputy Administrator, Dr. Hugh L. Dryden, speculated there would be outer space rest stops on the moon and Mars, and possibly colonization of Mars.

Astronaut John Glenn said we will have moved closer to a one-world concept in our space efforts in that the Communist activity as we know it now will long since have fallen by the wayside and be no longer of major importance in the world of political circles.

Dr. W. H. Pickering, Director of the Jet Propulsion Laboratories, predicted permanent scientific colonies at various places throughout the solar systems.

Vice President Lyndon Johnson foresees regular travel of people and freight between earth and other planets.

Perhaps the most bizarre speculation was offered by Brigadier General Irving Branch, Commander of the Air Force Flight Test Center at Edwards AFB. He estimates the moon's population in the year 2063 would be composed of 100,000 research and engineering personnel, and he added the colonies will contain an acceptable mixture of males and females.

THESE 12 Procurement and Contracts employees were honored last week with awards for completing a total of more than 143 years of government service. Left to right, front row, are: Polly Walker, 15 years; Rosette Tucker, 15; Betty Spires, 1; Catherine Posavec, 10; and Lonnie Jones, 1. Back row, left to right, are: Carl J. Dahl, 20 years; Dudley D. Reeves, 20; Kathryn Tate, 20; Robert C. Nead, 20; Elizabeth Moyles, 1; Charles W. Swanson, 10; and Elmer E. Murchison, 10. Hilma Wheeler, 10 years, and Gertrude McClintock, 1 year, were also honored, but missed the picture-taking ceremonies.

QUALITY CONTROL GRADUATE SCHOOL SET UP AT MSFC

Quality — the kind that would make a television set last your lifetime — is being taught at the NASA-Marshall Space Flight Center.

This kind of quality that makes a well-engineered rocket a success is so important that the civilian space agency has established a "graduate" school for training its quality control people.

William Dendy, "dean" of the Quality Division school, said the success record of the Saturn I booster — four successful flights in four tries— has spotlighted the importance of the school and the quality inspector's job.

Ex-school teacher Dendy set up the school early this year. The NASA-wide training program will be expanded to include some twenty courses, and is open to personnel from all NASA centers.

S-IV STATIC TESTED

NASA's first Saturn S-IV flight vehicle was static fired Monday at Sacramento.

The S-IV, second stage of the Saturn I space vehicle, burns liquid hydrogen and liquid oxygen, a high-energy propellant combination that will be undergoing its first test in space later this year.

The stage, powered by six RL-10 engines, generated the expected thrust of 90,000 pounds for more than one minute.

The stage tested Monday will be flown from Cape Canaveral this fall as a part of the SA-5 vehicle. This will be the first flight test of the complete Saturn I configuration.

GINGER DIXON admires her shiny new one year service pin. She's secretary in LOC's Community Development Office.

A ROSE BY ANY OTHER NAME

What's in a name?

The new NASA-AMR directory contains a cross section of monickers that could color almost anyones daydreams.

A name such as **Mars**, for instance, suggests interplanetary travel, **Mirage** links to desert thoughts, and **Neptune** connotates a journey to the bottom of the sea.

Royalty and nobility are well represented with seven **Kings**, a **Prince**, two **Dukes**, a **Lord** and a **Marquis.**

Along the military line there are two **Majors**, a **Battle**, a **Cannon**, a **Fort** and a **Garrison.**

Certain crafts and trades come to mind with four **Bakers**, a **Butcher**, a **Butler**, a **Chandler**, a **Cooper**, two **Drivers**, a **Mason**, 13 **Millers**, a **Potter** and 25 **Smiths.** There are also a **Bishop** and a **Judge.**

Naturewise there are a **Branch**, a **Twig**, a **Crabtree**, a **Palm**, an **Elm**, a **Field**, a **Cave**, a **Finch**, a **Hawk**, a **Swan**, a number of **Hills** and a pair of **Rainwaters.**

For sheer euphony, how about **Suzette de Loach, Elizabeth Di Donato, Antoinette P. Revels** and **Jacqueline H. Trepanier?**

Loki, Arcas Contribute To Programs

A seldom mentioned NASA program is making heavy contributions to meteorological research and to the success of the nation's space shots.

Each year, hundreds of small sounding rockets are fired by NASA and other government agencies to gather data on meteorological conditions at altitudes ranging from 100,000 feet to over 200,000 feet.

These small vehicles, the Loki and the Arcas, are used to check upper atmosphere weather conditions before and after space shots are launched from NASA's Wallops Island, Va., facility, the Atlantic and Pacific Missile Ranges and the Army's White Sands Missile Range.

Nine Feet Long

Both of these rockets are nine feet long. The Loki is about three inches in diameter and Arcas is slightly thicker. Both use solid fuel.

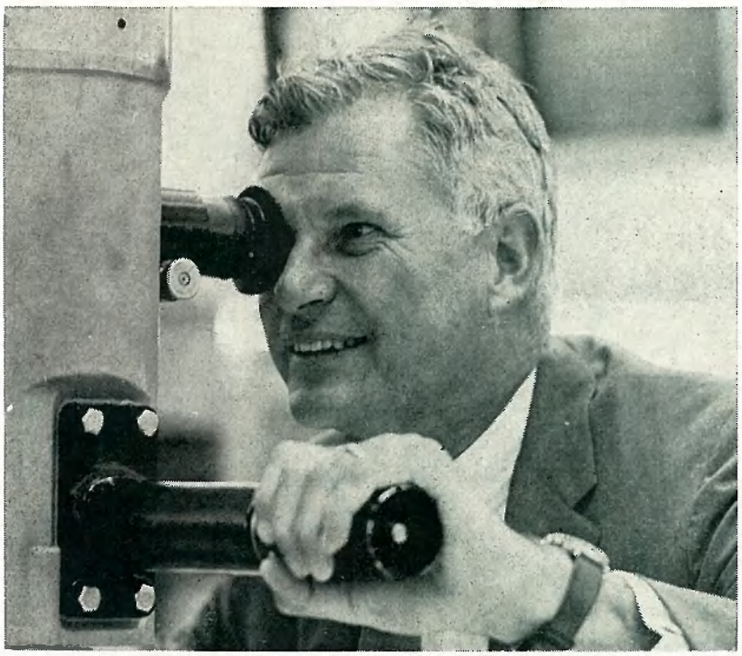
NASA, the armed forces and the United States Weather Bureau are working toward a national network of sounding rockets in which it would be possible to fire rockets simultaneously from many locations to gather weather data. This system would require a vehicle capable of being fired under any condition.

These small rockets have been fired from several points in the United States, including Alaska. Several other nations including England, France and Italy, have also used the rockets.

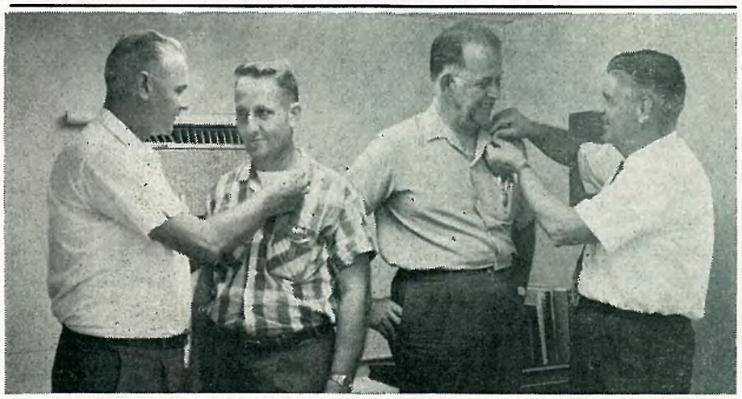
Two types of larger sounding rockets, the Nike-Cajun and the Nike-Apache are shot up to 300,000 feet to gather data on the structure of the atmosphere in areas too high for weather balloons and too low for satellites.

Both of these larger sounding rockets are 25 feet long and use solid fuel. Both have the same first stage as the Army's family of Nikes.

The Nike-Cajun and Nike-Apache are fired from Wallops Island, Va., and Fort Churchill, Canada.



INSPECTING the paid area at Launch Complex 37, through a blockhouse periscope, is Dr. Robert C. Seamans, Associate Administrator for NASA. He was here last week on an official visit.



P. T. CORNELIUS, left, Chief of Base Operations Storage and Distributions section, applies a 15-year service pin to the collar of G. W. Lusby, a leadman in his section. Base Operations Manager Sigfrid Carlson, right, provides the same service for 10-year man John Mansfield, of the Access and Disposal Office. Cornelius also received a 15-year pin during the Friday ceremonies.

THE 300th member of the NASA-MILA Federal Credit Union is Charles Hall of Facilities Management, who joined last week. Total deposits are now in excess of $21,000, and 50 loan applications have been approved.

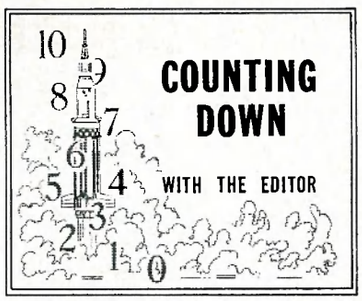
NASA NEWCOMERS

Twelve new employees have joined LOC in the past two weeks.

They are: Marcia E. Philips, Darlene A. Naughton, Ann Leslie, Alvis E. King, John V. Yelverton, Paul M. Bricker, Richard J. Mazurkiewiez, Roland E. Miller, Malcolm W. Hudson, Patricia E. Brown, Edgar Bryant, Jr., and Orville T. Boone.

At Huntsville, five new employees have joined the Launch Support Equipment Engineering Division.

They are: Charles A. Lauritzen, Ronald H. Galloway, Edward F. Mersereau, Walter G. Merrict, and E. D. Wallace.



If you think Cape traffic is bad, consider the Los Angele's area freeways. Drivers there are donning space helmets now.

Actually, the headgear is being worn as part of a research project to find out how the brain might react to conditions similar to what an astronaut could face some day.

One method used to test the helmet involves subjecting the driver to stress conditions. Scientists agree there is no greater stress around Los Angeles than driving on the freeways.

* * *

The age-old axiom, "You can't have your cake and eat it too," or at least a modern-day version of it, soon may become extinct.

Scientists have found that molasses-thick liquid gelatin, pressed into layers of fiberglass cloth, produces an extremely strong, smooth material as flexible as rubber.

In the frigid, simulated space vacuum of a high-altitude chamber, however, the material is said to have become as rigid as the best high-strength reinforced plastics.

Spacecraft applications of the versatile gelatin are virtually limitless. Food containers, for instance, could be made of gelatin so that astronauts could eat the package with the food.

* * *

If the Sicilians have their way, President and Mrs. Kennedy's next child will be an astronaut — or astronette.

Ceramic craftsmen of Caltagirone, Sicily, are sending to the White House a specially-made crib.

It is decorated with the town crest of Catagirone and two angels supporting, of all things, a Mercury capsule.

* * *

Congratulations are in order to Terry and Jean Greenfield, new parents of a second son, Timothy, born last week.