



THE NASA barge Palaemon, above, arrived at Port Canaveral recently with the Instrument Unit for the first Saturn IB launch vehicle, now undergoing checkout tests at Launch Complex 34. Command and service modules for the instrumented Apollo spacecraft, which will top the IB, arrived this week. The Instrument Unit was erected Monday.

SPACEPORT



NEWS

Volume 4, Number 43

Kennedy Space Center, Fla.

October 28, 1965



THE TABLES were turned recently, when Kennedy Space Center Director, Dr. Kurt H. Debus, right, who has given hundreds of such awards, received his own 20-year service certificate from Associate NASA Administrator for Manned Space Flight, Dr. George E. Mueller. The presentation was made at a tea for 200 wives of KSC personnel in the Launch Control Center. Dr. Debus began his civil service career in 1945 when he was assigned to Ft. Bliss, Texas, to participate in ballistic missile development. He moved to the Redstone Arsenal in Huntsville in 1950, and supervised development and installation of launch facilities for Army rocket programs at Cape Canaveral as early as 1952.

Geodetic 'Mapper' Ready

A Geodetic Explorer Spacecraft — GEOS A — is scheduled to be launched by the Kennedy Space Center no earlier than next Tuesday.

The 385-pound spacecraft contains five geodetic instrument systems to provide simultaneous measurements that scientists require to establish a more precise model of the Earth's gravitational field, and to map a world coordinant system relating points on or near the surface to the common center of mass.

Ultimate purpose of geometric geodesy is to establish all points on the physical surface of the Earth in a coordinant system originating at the center of mass, and with one axis coincident with the rotational axis of the Earth.

The launch vehicle will be NASA's Thrust-Augment-Improved Delta. This will be the first launch for the improved Delta second stage. Enlarged fuel tanks provide a longer engine burning time than the (See GEODETIC, Page 4)

Gemini 7 Checkout Underway At Center

Defueling operations and purging of the Gemini 6 spacecraft lines took place this week, following the Monday postponement of Wally Schirra and Tom Stafford's rendezvous-in-space mission.

At presstime NASA officials were meeting to decide exactly which step would next be taken in the program. Gemini 6 was scrubbed Monday when the Agena target vehicle failed to orbit after a flawless count down and launch.

While the decisions were being made, the Gemini 7 spacecraft was continuing through a series of checkouts at the Kennedy Space Center. It arrived here October 9, and following receiving and inspection, has been equipped with ordnance devices, including retro-rockets, at the Pyrotechnic Installation Building.

Weight and balance checks on the seats, with the astronauts participating, have also been run, fuel cells installed and a coolant system resericed. Gemini 7 will be the long duration, 14-day flight of Astronauts James Lowell and Frank Borman.

G. Merritt Preston, Deputy KSC Director for Launch Operations, said the dual countdown on the Atlas-Agena and Gemini launch vehicles progressed exceedingly well to the point of the Agena's loss.

At a post launch press conference Dr. George E. Mueller, Associate NASA Administrator for Manned Space Flight, (See GEMINI, Page 4)

UF DRIVE LAGGING

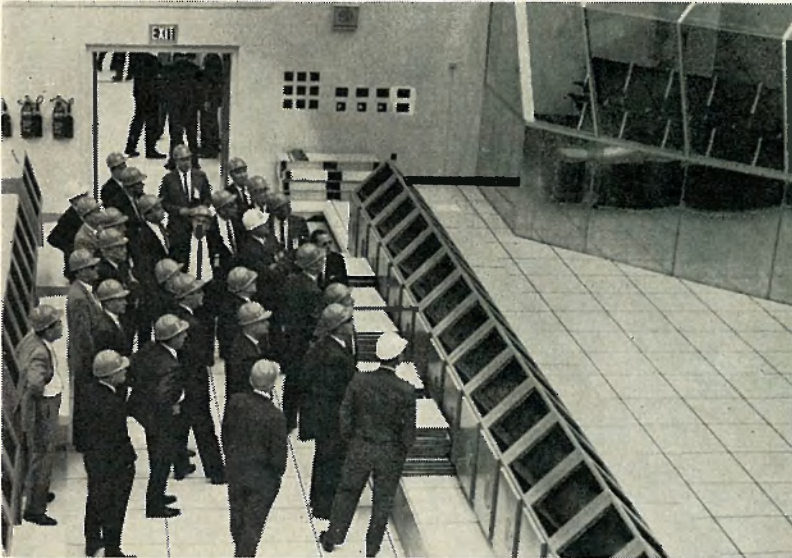
KSC United Fund drive chairman John Donovan reports contributions from NASA employees are running far behind the amount needed to meet the Center's goal of \$25,000.

"Our drive is supposed to end on October 31st, meaning tomorrow is the last work day in which to participate," Donovan said. "But returns have been so slow we may have to extend the campaign."

Donovan believes the goal will be met, pointing out that KSC has always topped its quota in years past. "But people are letting the deadline slip up on them this year, and we need to spur them into last minute action," he said.

"Our fair share is urgently needed. Some organizations have already gone over the top, while we lag behind. I'm sure no one can seriously question the good created by the United Fund," Donovan said. "It's probably just a case of putting things off. But the deadline is upon us, we can't wait any longer."

Donovan urged everyone to (See UF, Page 4)



PROCUREMENT officers from NASA headquarters and from field centers across the country met at the Kennedy Space Center last week for their annual three-day conference. A highlight of their visit was a tour of the Spaceport, and one of the stops was at a Launch Control Center firing room, above. Among those attending were: Lt. Gen. Frank A. Bogart, Deputy Associate Administrator (Management), Office of Manned Space Flight; William B. Rieke, Deputy Associate Administrator, Office of International Affairs; George J. Vecchietti, Director, OIA Procurement Office; Raymond Einborn, Director, Audit Division; Clyde Bothmer, Director, NASA Industry Affairs Office, OIA; and Paul L. Styles, Director, Labor Relations Office, OIA. Center Director, Dr. Kurt H. Debus, welcomed the group to the Spaceport, and KSC Procurement Chief M. E. Haworth had overall responsibility for coordinating the meeting.

Lecture Series Announced

The sixth annual fall lecture series in space technology will begin at the Brevard Engineering College next Tuesday (November 2), with a talk on "Galaxies and Mankind," by Dr. Harlow Shapley, Harvard University astronomer.

Dr. A. H. Knothe, senior scientist at the Kennedy Space Center will be host chairman for this year's events which will run through December 7.

Other lectures in the series will include: Life Science Program in Manned Artificial Satellites, by Dr. Siegfried J. Gerathwohl, Manager Life Science Projects, NASA Manned Space Science Programs, November 9; Perspec-

tive on Advanced Space Propulsion Systems, by Dr. John C. Evvard, Deputy Associate Director for Research, NASA's Lewis Research Center, November 16; Applications and Science Progress in our National Space Program, by Dr. Homer E. Newell, Associate NASA Administrator for Space Science and Applications, November 30; and Lunar Orbiter Photographic Mission, by Captain Lee R. Scherer, NASA Headquarters, December 7.

The lectures will be held Tuesday mornings from 9 to 11. Tickets may be obtained from Colonel A. L. Cox at the Brevard Engineering College.

Security takes no vacation.

100 Miles Of Cable Soon To Be Installed At Launch Complex 39

Nearly 100 miles of instrumentation and communication cable will be added to the Kennedy Space Center's moon launch complex as part of a project on which bids will be opened next Tuesday.

The cable will link the second moon launch pad—Pad B of Complex 39—with the Launch Control Center and the Vehicle Assembly Building, some 3½ miles away.

Approximate cost of the work, which will be supervised by the Canaveral District of the U. S. Army Corps of Engineers for NASA, is \$2 million. A contract for a similar cabling project for Launch Pad A was awarded in April of this year.

The work calls for the contractor to furnish and install more than 467,000 feet of coaxial, video, telephone and instrumentation cable. Also to be supplied and installed are instrumentation distributors, and coaxial, video and telephone termination equipment.

A \$749,551 contract has also been awarded to B. B. McCormick and Sons, Inc., of Jacksonville Beach, Fla., for surfacing and widening the Crawlerway between the Vehicle Assembly Building and Pad A of Complex 39.



THIS IS no knight in shining armor, not even an astronaut. Rather, it is a NASA technician emerging from the Space Environment Simulator at the Goddard Space Flight Center. It is designed to test complete unmanned spacecraft systems under simulated conditions of outer space. Such satellites are launched at the Kennedy Space Center under the Assistant Director for Unmanned Launch Operations.

Satellite Photography

NASA estimates that a single satellite in a 300-mile-high polar orbit can photograph the entire surface of the Earth in four and a half days.



KENNEDY SPACE Center officials gathered at the Western Test Range recently for an inspection tour of the facilities there, which were recently transferred to KSC in a launch consolidation move. Left to right are Albert F. Siefert, Deputy KSC Director; Joseph B. Schwartz, acting Chief of the WTR Operations Division; William Evans, Chief of the WTR Range Operations Support Office; John J. Neilon, Deputy Assistant KSC Director, Unmanned Launch Operations; and George A. Van Staden, Assistant KSC Director for Administrative Management.

SPACEPORT



NEWS

Published each week by the John F. Kennedy Space Center,
National Aeronautics and Space Administration,
Kennedy Space Center, Florida, 32899
John W. King, Chief, Public Information Office
L. B. Taylor, Jr., Editor
Russell F. Hopkins, Staff Photographer

Blood Drive Contributors Enthusiastic

Kennedy Space Center personnel response to the blood donor drive last week was termed "enthusiastic" by a medical spokesman. Some 69 pints were donated in the Manned Spacecraft Operations Buildings last Wednesday, and 15 were contributed the following day at the Launch Control Center.

The KSC blood bank urgently required a substantial amount of the life-saving fluid to supply employees in need.

The blood program is being expanded to include the Red Cross as well as the Brevard County Blood Bank. Both organizations will participate in quarterly KSC donor drives on an alternating basis.

The next drive will be held either in December or January. Through the bank, blood needs of employees, their dependents and in-laws will be met in any hospital in the continental United States.

Flu Shot Schedule Set For Next Week

Flu shot schedule at the Kennedy Space Center for the next week is as follows:

Monday, November 1—Material Support Branch Building conference room (1-3:45 p.m.).

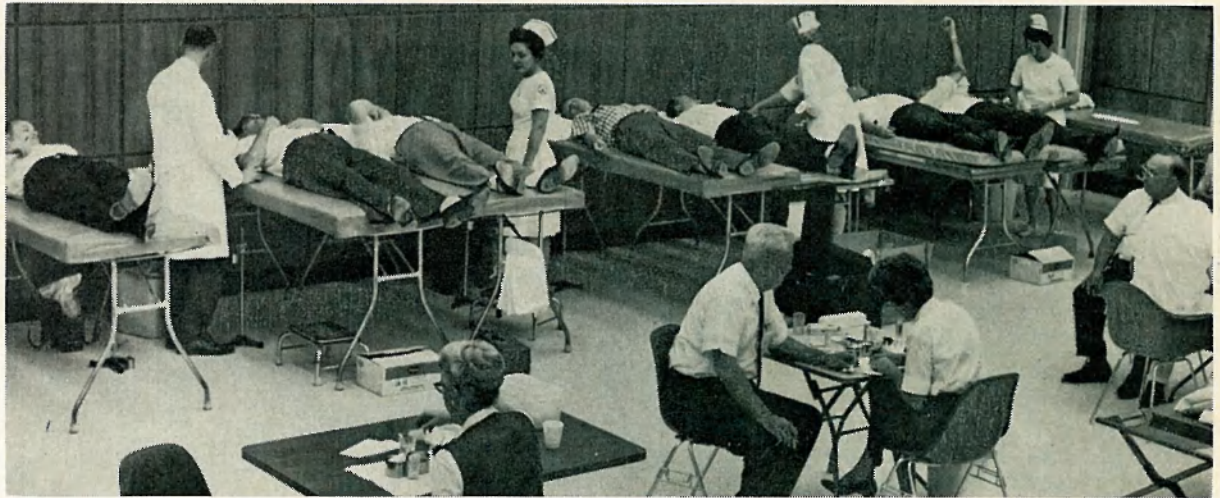
Tuesday, November 2—Base Operations Building, TWA Conference Room (8:15-11 a.m.); Plant Maintenance Building (Noon-3:30 p.m.).

Wednesday, November 3—Manned Spacecraft Operations Building, first aid room, first floor (8:15 a.m.-5 p.m.).

Thursday, November 4—Manned Spacecraft Operations Building, first aid room, first floor (8:15-11 a.m.); KSC Headquarters Building, conference room 2201 (12:30-3:45 p.m.).

Friday, November 5—KSC Headquarters Building, conference room 2201 (8:15 a.m.-3:45 p.m.).

Poor judgment results in
ACCIDENTS!

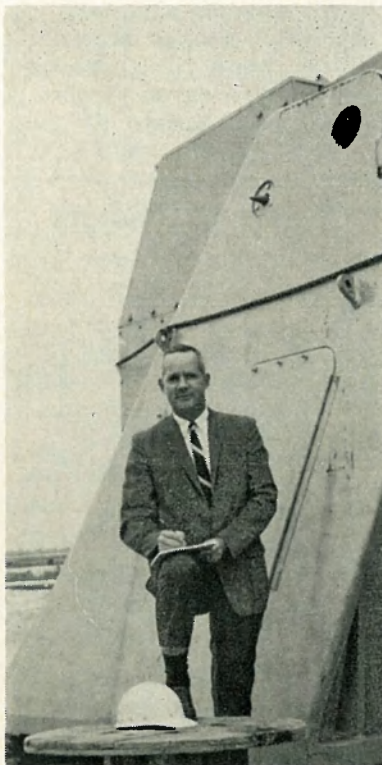


KENNEDY Space Center employees donated a total of 84 pints of blood last week during a drive held at the Center. These people were photographed in the Manned Spacecraft Operations Building's briefing room.

KSC ENGINEER JIM PHILLIPS HONORED FOR SATURN V DESIGN

James D. Phillips, an engineer with the Launch Support Equipment Engineering Division, has been awarded the \$250 first prize in the 1965 Steel Casting Design Contest, sponsored by the Steel Founders' Society of America.

Phillips' entry describes a steel casting measuring 117 by 117 by 76 inches, used as a base for Saturn V Holddown



KSC Engineer Jim Phillips stands before Saturn V holddown arms.

Arms on the mobile launcher. The Saturn V launch vehicle will be used to propel astronauts to the lunar surface under the Apollo program.

The casting, with an estimated poured weight of 45,500 pounds and an estimated machined weight of 35,000 pounds, supports the Saturn V space vehicle on the launcher and serves as a base for the release mechanism.

Design of the base as a steel casting saved an estimated 50 percent of production cost for a fabricated plate structure.

Phillips' design topped more than 200 entries. The 1965 Steel Casting Design Contest was open to individuals or groups involved in the selection of engineering materials for original designs or conversions.

Purpose of the contest was to promote greater use of steel castings by calling attention to design advantages.

Phillips joined the Kennedy Space Center in February 1962. He is a graduate engineer of the University of Alabama, and works specifically with experimental ground equipment facilities.

He and his wife, Johnnie, and their two sons, Richmond,

12, and Samuel, 8, live at 1560 N. Lilac Circle, Titusville.

Insurance Responses Favorable

A recent survey was made among all NASA civil service employees to determine their collective interest in a new Travel Accident Insurance Program which was proposed by the Home Life Insurance Company and endorsed by the NASA Employees' Benefit Association.

NASA-wide response was so favorable that the plan is being adopted, effective November 1. "Premium-Due Notices" have been dispatched to the 531 KSC employees who indicated a desire to enroll during the survey.

Those who submit payment on or before November 1, will cause their desired insurance coverage to become effective that date.

Personnel travel accident coverage of \$25,000 can be purchased for as little as \$6.25 per year. Enrollment cards can be sent to the Exchange Council (EXC, Room 2229, KSC Headquarters Building) at any time. If you need an enrollment card phone 867-3840.

109 FEET TALL

Overall length of the Gemini launch vehicle, including the NASA spacecraft, is 109 feet. Fueled weight before liftoff is 345,000 pounds.



Dear Sir:

I read where the astronauts like pancakes, but were having trouble getting them prepared the way they liked them. Enclosed is my favorite recipe which specifically says **no grease!** Good luck — not only on the pancakes, but on the other experiments in your spacecraft, which might be just a little more important.

Estella F.
Greensboro, N.C.

* * *

For those who are interested, the pancake recipe is as follows: Two cups flour, two and a half teaspoons baking powder, one cup sugar, two or three eggs and one cup milk.

Place all ingredients in bowl and stir until mixed. Heat skillet over medium heat until a drop of water dances in tiny balls. Drop batter on skillet and when bubbles cover pancake, turn. The most delightful pancakes ever will result. They are even good cold — if you have any left. Put no grease on skillet.

* * *

Pardon us folks!

We were taken to task last week by the hunters at the Center who reminded us you don't chase ducks with a rifle (as we had implied in a headline on an article about hunting on the Merritt Island Wildlife Refuge.)

One hunts duck, we were emphatically told, with a shotgun, not a rifle. I guess our army training, ("This is a rifle, soldier, not a gun!"), had brainwashed us.

The funny part about the whole thing was last year on a pre-hunting season article we had said sportsmen were loading buckshot in readiness for opening day, and a Public Affairs Officer, more familiar with tramping through the brush, caught it. You shoot duck with birdshot, not buckshot.

Rifles, shotguns, birdshot, buckshot—regardless, we wish you hunters well in the coming season.

Will Mysterious Mr. Rank Step Up?

Who is the mysterious Mr. Rank?

Two KSC girls, Martha Barnes of Personnel, and Lee Moss of Education and Community Services, would like to meet him.

The story began several months ago when Personnel moved into the KSC Headquarters Building. Martha threw away some rocket photographs that had gotten wet during the move, and the next morning they were gone and a note was on her desk.

"If you have any more



Lee Moss

photos, please leave them for me. I send them to my nephew who has cerebral palsy," the note said. It was signed "R. O. Rank."

Martha left some more pictures, and then told Lee Moss about it, and Lee left a packet of brochures and fact sheets on various space operations at the Center. Each time either girl left anything, thank you notes would appear the next morning, signed by the mysterious Mr. Rank.

Then last week, the girls each got a photo and letter from the 13-year-old youngster, who lives in Lincoln, Nebraska.

His letter read: "I would like to thank whoever is responsible for getting me the notebook full of information and pictures on space flights. They were very good and I spent many hours reading the booklets. I liked the cardboard model very much too. Enclosed is a snapshot so you can see what I look like. I would

like to know your names and maybe have a snapshot of you so that I can see who was so nice to take the time to send the books to me. Thank you again."

Martha and Lee now plan to send the bed-ridden youngster more material on space. But to this day they have never met "Mr. Rank."

"We're pretty sure he works in the building at night, probably as a maintenance man," but our paths have never crossed," Martha said. "We'd like to meet him."



Martha Barnes

NASA Acquires Gas-Turbine Tug

A gas turbine powered tugboat, the first ever built, has been delivered to NASA's Mississippi Test Facility for use in the canal system there.

The 69-foot-long "Clermont" will perform a variety of chores in connection with future space rocket static firings at the Hancock County, Miss., facility, which is an element of the Marshall Space Flight Center. Main duties will be to berth and tow space vehicle and cryogenic tanker barges in the inland canal system.

GEODETIC MAPPER

(Continued from Page 1)

standard Delta previously used by NASA.

The flight will be supervised by Assistant KSC Director for Unmanned Launch Operations, Robert H. Gray. Hugh A. Weston is Manager of Delta Operations for KSC, and James W. Johnson is spacecraft coordinator.

Wives Call Meeting

The NASA Wives Club will hold its regular monthly meeting at the Patrick AFB Officers Club next Wednesday, November 3.

All NASA wives are invited to attend. No reservations are needed.

Gemini 7 Checkout

(Continued from Page 1)

said the delay caused by Monday's mission would not affect the overall man-in-space program, and that Project Apollo was still on schedule.

UF DRIVE LAGGING

(Continued from Page 1)

turn in their United Fund cards to organizational co-chairmen so the final tabulations could be made as soon as possible.

"I'm hopeful we'll have a last minute surge that will push us far over the \$25,000 goal," Donovan said, "but to do this we're going to need some activity — and fast."

SIGHT RESTORATION POSSIBLE VIA BANKS

An employee at the Kennedy Space Center, Warder Bacon of North American, passes on the following, interesting information:

"It is impossible to convey in a few words the miracles of sight restoration that have been accomplished by corneal transplants from donated eyes," Bacon writes.

"The Lions International sponsors eye banks all over the world, and the local Lions are interested in promoting this worthy cause.

"Once you have passed away, you have no further use for your eyes, but they could become the means for giving sight to a blind person if you donate them to an eye bank."

Anyone interested in further information may call Bacon at 867-6520, or see him in room 3155 of the Manned Spacecraft Operations Building.