



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.

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 countdown 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)

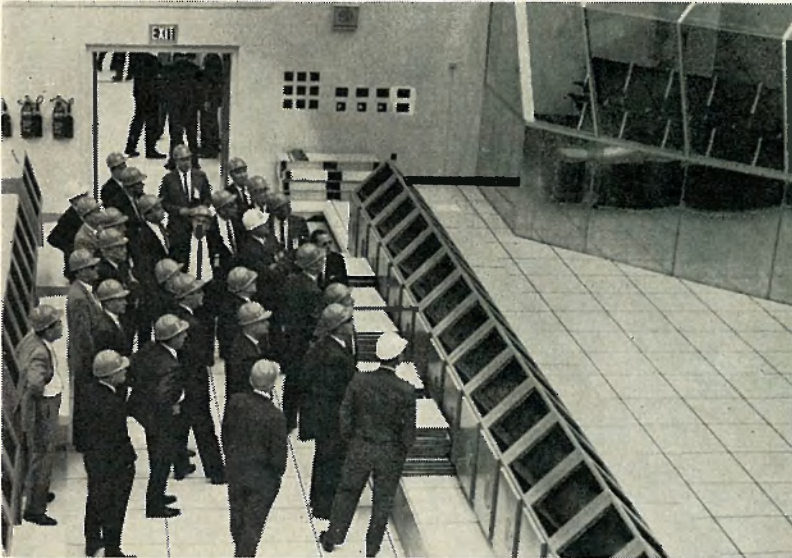
Geodetic 'Mapper' Ready

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)



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. Gerathewohl, 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



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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.).

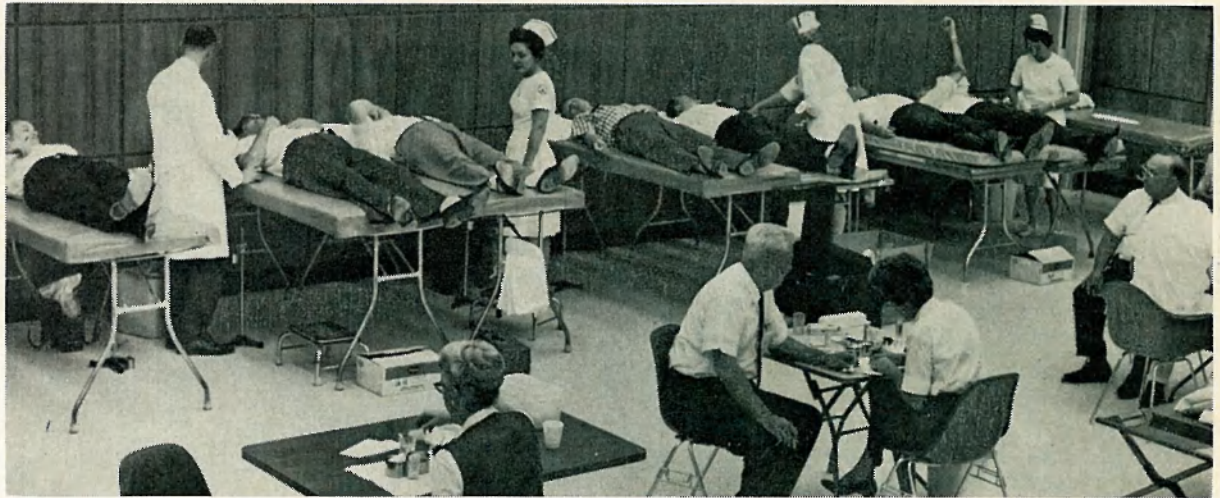
Tuesday, November 2—Base Operations Building, TWA Conference Room (8:15-11 a.m.); Plant Maintenance Building (Noon-3:30 p.m.).

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,

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.

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.



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