

**FLIGHT SPACECRAFT** — Apollo Spacecraft 009 undergoes mission simulation and systems integration checkout in Bldg. 290 clean room before being delivered to NASA on Wednesday.

## NEW SERIES OF PARAGLIDER FLIGHTS BEGINS AT EDWARDS

A series of eight one and two-man flights will be made with S&ID's Paraglider recovery system during a three-week test program which began Monday at Edwards Air Force Base.

### Final Phase

The test flights are in the final phase of a development program the division is conducting for NASA's Manned Spacecraft Center. The program is designed to study the operational feasibility of a controlled Earth landing system.

Four successful flights in a row were made by division test pilots Don McCusker and Jack

Swiger, during an earlier phase of testing the bat-winged system during September. Since that time, the vehicle's Gemini-type test capsule has been equipped for two-man flights.

In the upcoming tests, McCusker and Swiger will demonstrate pilot capability to land the system in a pre-designated area, and the ability of a pilot to make navigational fixes during spacecraft recovery.

The first two-man flight in the system is scheduled for next week. It was preceded by single-pilot flights this week, in which the co-pilot was simulated.

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## Company Outlines Improvements in Wages and Benefit Programs

The company this week announced improvements in wages and certain benefit programs for employees on weekly payroll.

Effective Oct. 19, all base rates were increased by eight cents per hour. The present cost-of-living allowance of 11 cents per hour was folded into base rates at the same time. The cost-of-living allowance will be continued based upon the revised Bureau of Labor Statistics Index at the rate of one cent per hour for each .4 change in the index.

An additional holiday, the last regular working day before New Year's, was added. For government pay of three days will be afforded an employee who must be absent from work because of a death in the immediate family.

Employees will be eligible for

### Columbus Veterans Gather at Rec Park

More than 300 ex-Columbus Division employees and their families gathered together for a pot luck picnic last Sunday at Automotives Recreation Park.

The response was so great, ex-Columbus employees have already begun planning a similar event for next year.

three weeks' vacation after 10 years of uninterrupted service, and four weeks after 20 years. Vacation benefits based on accumulated service have been discontinued. However, no present employee will have a reduced vacation benefit as a result of this change.

Group insurance benefits will

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**S-II STAGE** — NASA barge Little Lake is shown transporting S&ID-built Saturn S-II-T stage along East Pearl River

# Skywriter

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## Apollo Spacecraft 009 Accepted by NASA in Downey Ceremony

### Unmanned Flight Slated Next Year to Test Re-Entry Phase

Apollo Spacecraft 009, destined to be the vehicle for one of the most important test missions in the program to date, was accepted by NASA's Manned Spacecraft Center during informal ceremonies held at Downey Wednesday.

The first Apollo flight spacecraft of the type that will carry three U. S. astronauts to the moon and back, Spacecraft 009 will be put through an unmanned flight early next year in the first test of a series to prove Apollo's capability to withstand the 3000° F. re-entry temperatures expected on lunar flight. It will be launched from Kennedy Space Center on the first flight of NASA's Saturn S-1B vehicle.

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Models used in earlier Apollo tests have been "hotplate" engineering test vehicles which simulated Apollo's weight and shape.

With the acceptance of Spacecraft 009, the Apollo program moves from the state of design and static testing toward flight testing, which is really the culmination of the program," said Dr. Joseph Shea, MSC Apollo program manager, who accepted delivery.

### Largest Yet

Spacecraft 009, largest U. S. manned spacecraft built to date, includes a command module, service module, launch escape system, and adapter.

The command module — the cone-shaped compartment that will house the three-man crew on later missions — consists of two structures. The inner, pressurized compartment is of aluminum honeycomb, and the outer heat shield is of stainless steel vanadium. A plastic ablative material coats the entire outer surface to protect the crew from the scorching heat, expected on re-entry.

"No other manned spacecraft built to date has this capability to withstand temperatures as high as 5000 degrees," said Dale Myers, S&ID vice-president and Apollo program manager. "Maximum temperatures encountered so far in the nation's manned space program have been in the neighborhood of 3500 degrees."

### Preliminary Flight

In the first test flight, Spacecraft 009 will thrust its way back into the atmosphere from about 200 miles altitude, using its 22,000-pound-thrust service propulsion engine in the service module to reach a speed of about 18,750 mph, said Myers.

This speed is about 10% above that expected on a normal re-entry from Earth orbit, and a successful flight of Spacecraft 009 will be an important step toward qualifying for the lunar mission, said Myers.

On later flights returning from the moon, As-Te will reach top speeds of about 25,000 miles per hour and ex

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## COST-OF-LIVING ALLOWANCE SET

An additional one-cent-per-hour cost-of-living allowance will become effective Sunday, Oct. 24, for all eligible employees on the hourly and weekly payrolls.

The increase is based on the Bureau of Labor Statistics' Consumer Price Index for August, 1965.

## S-II-T Preparing for Tests After Arrival at MTF

The S&ID-built Saturn S-II-T test stage is being prepared for an extensive test program at NASA's Mississippi Test Facility following its arrival at the sprawling installation Sunday.

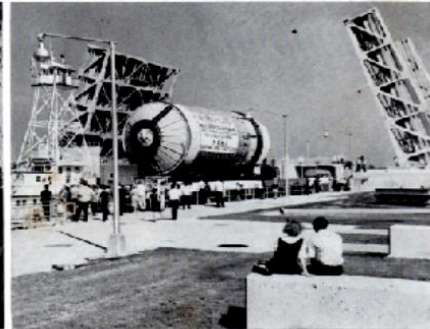
On hand to greet the stage at the conclusion of its 4000-mile journey from Seal Beach were several hundred S&ID and NASA employees, headed by Harry Cox, manager of S&ID's MTF organization, and Jackson Balch, NASA Marshall Space Flight Center's MTF manager.

### First Arrival

The first complete S-II test model, the S-II-T, is the first model to arrive at the Mississippi facility. NASA's proving ground for stages of the free world's most powerful space-propulsion vehicles. The stage's test stand, the A-2, will be the first operational stand at the facility.

Balch, during an informal press conference held Sunday afternoon, commented that "the arrival of the S-II-T puts MTF into high gear." Cox added that North American is proud to be part of the facility and proud that the S-II-T is the vehicle being used by NASA to ultimately activate the site.

In a telegram to Balch, read during the press conference, Gov. Paul B. Johnson of Mississippi wrote, in part, "Arrival of the S-II-T stage, built by North American Aviation for NASA, marks the beginning of the space age for Mississippi. The governor's office is ready and willing to continue its cooperation with you at all times."



to NASA's Mississippi Test Facility. At right, spectators watch while stage passes through lock at facility entrance.