During 1967 we plan to static fire three more stages for flight acceptance; S–IC–4, –5, and –6, and we plan to deliver S–IC–2, –3, –4, and –5 to KSC.

The S–IC All Systems stage that successfully completed ground test in early 1966, was delivered to Mississippi Test Facility in October for checkout of the first S–IC All Systems stage will include a static firing to be accomplished in the first quarter of 1967.

In May 1966 the S–IC–Dynamic stage was placed in the Saturn V dynamic test stand at MSFC for checkout of the stand and its data acquisition system in preparation for the Saturn V launch vehicle dynamic testing. On March 3, 1967 the first firing of the S–IC–T stage was successfully carried out at Mississippi Test Facility.

2nd stage

Although the Saturn V 2nd stage continues to be the pacing item in the development of the launch vehicle, positive progress was made during 1966 (fig. 35, MC65–11,367). Further confidence was gained from the manufacturing checkout results of the flight hardware and the two successful static firings of the first flight 2nd stage at the Mississippi Test Facility late in 1966. Along with the static firings of S–II–1, we completed manufacturing checkout on S–II–2 (MC65–11,367). The manufacturing checkout results of all the 2nd stages processed to date, the S–II–T, S–II–1, and S–II–2, confirm the design of the mechanical and electrical/electronic systems.

In 1967 we plan to deliver three stages to MTF for acceptance testing, and to complete manufacturing and checkout on four stages.

In May 1966 we lost the S–II All Systems Stage (fig. 36, MA66–9250). When the accident occurred, we had completed 773 seconds of a planned 885 seconds static firing program in preparation for the acceptance firing of the flight stages. The destruction of the stage resulted from an inadvertent over-pressurization of the liquid hydrogen tank with gaseous helium during a leak test. Damage to the test stand was minor.

Subsequent to the loss of this ground test article, we inaugurated a Saturn V 2nd stage confidence improvement program to verify the design of this stage and provide confidence to commit it first to unmanned flight and later to a manned launch. The confidence improvement program consists of further test firings of the Battleship as well as the first and second flight stages prior to their delivery to the launch area where they will be integrated into early Saturn V flight vehicles.

In order to make most efficient use of our hardware, the S–II All-Systems Stage was also to be utilized in the Saturn V 500–D vehicle for the dynamic test program. The loss of this stage made it necessary to realign our plans.

After carefully reviewing the program requirements and available alternatives, we assigned the S–II Facility stage to the dynamic test program. This resulted in a slight delay of the dynamic testing since the facility stage was being employed in the Saturn V 500–F facilities testing at KSC. In spite of the delays, our ground test schedule supports the flight tests which will be starting this year.

The impact of the All-Systems stage loss on the launch of the AS–501 space vehicle amounted essentially to the additional time required for the static firings conducted with the first flight stage (S–II–1).

To minimize the impact at KSC of the delayed delivery of the S–II stage, an S–II "spacer," already constructed, was shipped to Cape Kennedy to enable the 3rd stage and spacecraft to be stacked for checkout purposes in the Vehicle Assembly Building (fig. 37, MA67–5796). This inexpensive expedient will significantly minimize the delay of the AS–501 launch. It will also be used in the checkout of the AS–502 and AS–503 vehicles since the S–II delivery is also pacing these launch dates.

3rd stage

The first 3rd stage flight stage arrived at KSC in August 1966 for prelaunch checkout in preparation for the first Saturn V unmanned mission (AS–501). The second 3rd stage flight stage was delivered to KSC on February 21, 1967. This stage will go through prelaunch checkout for the second Saturn V unmanned mission (AS–502).

On January 20 the 3rd stage of the AS–503 flight vehicle was inadvertently destroyed during countdown for a test firing. The accident took place at the Douglas Sacramento test facility in California. The stage was completely destroyed while the test stand received substantial, but repairable, damage (fig. 38, MC67–5707).