

structural assembly, subsystem installation, and in-plant checkout. The five Lunar Modules will be delivered to KSC, depending on the changes that are required as a result of our ongoing assessment.

Guidance and Navigation.—Moving down to the next item, we are requesting \$55.4 million for the Apollo spacecraft guidance and navigation system in fiscal year 1968.

During fiscal year 1968, six guidance and navigation units for manned Apollo command modules will be delivered. Six Lunar Module units will also be delivered. By the end of the fiscal year, all but three guidance and navigation units will be in assembly or checkout.

Integration, Reliability, and Checkout.—The fiscal year 1968 requirements for integration, reliability, and checkout, amounting to \$23.2 million, provide for two basic areas. The first category includes engineering support to the Manned Spacecraft Center for activities such as maintenance and review of the Apollo spacecraft specifications, systems performance analyses, reliability and quality assurance, trend analysis of failure reports, mission planning and analysis, and interface control. Consistent with the increasing rate of hardware deliveries and flight mission the fiscal year 1968 activity will focus on spacecraft hardware verification, mission planning and analysis, and postflight documentation.

Fiscal year 1968 funds also cover the operation, maintenance, and updating of the 12 ACE stations to meet mission requirements, located at key Apollo spacecraft sites across the country.

Spacecraft Support.—Apollo spacecraft support activities include the funding for test operations at contractor, NASA, and other Government installations; crew equipment—including space suits; logistics; and instrumentation and scientific equipment. The \$90.6 million requested for these activities in fiscal year 1968 includes support of the various spacecraft test programs. Typical examples are the spacecraft and equipment environmental tests in Houston's vacuum chambers, spacecraft propulsion tests at the White Sands Test Facility in New Mexico, reaction control system testing at the Arnold Engineering Development Center in Tullahoma, Tenn., and altitude chamber tests at the Kennedy Space Center.

The fiscal year 1968 funds also provide for development and procurement of Apollo space suits and related crew equipment, EVA umbilicals, survival equipment, personal hygiene systems, and bioinstrumentation. Major effort will be devoted to manufacture and test of a space suit and portable life support system for lunar surface activities.

Up-rated Saturn I.—Moving on to the Saturn-class launch vehicles, the next chart (fig. 36, MP 67-5437) identifies our fiscal year 1968 funding requirements for the up-rated version of the Saturn I. As you are well aware, our record to date with the original and the up-rated versions of the Saturn I vehicle has been excellent: 13 successes in 13 launches. Our fiscal year 1968 request for the up-rated Saturn I is \$156.2 million—a decrease of \$80.4 million from the fiscal year 1967 level. The evolution from hardware production and delivery to operational use explains this decrease. Half of the vehicles in the currently approved program of 12 up-rated Saturn I's have already been delivered. Four additional launch vehicles are scheduled for