#### MANNED SPACE FLIGHT

# RESEARCH AND DEVELOPMENT APOLLO SPACECRAFT

## FY 1968 BUDGET ESTIMATE

(MILLIONS OF DOLLARS)

	FY 1966	FY 1967	FY 1968
COMMAND AND SERVICE MODULES	612.8	560.4	494.0
LUNAR MODULE	362.6	472.5	373.1
GUIDANCE AND NAVIGATION	137.2	76.6	55.4
INTEGRATION, RELIABILITY AND CHECKOUT	32.3	30.0	23.2
SPACECRAFT SUPPORT	88.9	110.8	90.6
TOTAL	\$ 1,233.8	\$1,250.3	\$ 1,036.3

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## FIGURE 129

and Saturn V launches. The remaining seven Command and Service Modules configured for rendezvous and docking will be in various phases of assembly, systems installation, and in-plant checkout.

## Lunar Modules

Our fiscal year 1968 estimate for the Lunar Module line item is \$373.1 million. These funds provide for the work being done by the prime contractor, Grumman Aircraft Engineering Corporation, Bethpage, New York, as well as the experiments and experimental hardware that will be carried in the Lunar Module. Included are the Apollo Lunar Surface Experiments Package (ALSEP) and the tools that will be used to obtain samples from the lunar surface.

During FY 1968 a Lunar Module Test Article, refurbished after use in the Apollo Saturn V dynamic testing at Marshall, is scheduled to be launched on the second unmanned Saturn V qualification flight. In addition, major emphasis will be placed on the production, checkout, and delivery of flight lunar modules for manned rendezvous and docking missions. Five Lunar Modules are scheduled for delivery to Kennedy and the remaining seven will be undergoing structural assembly, subsystem installation, and in-plant checkout.

#### Guidance and navigation

Moving down to the next line item, we are requesting \$5.4 million for the Apollo spacecraft guidance and navigation system in fiscal year 1968. This system was designed by the Massachusetts Institute of Technology. Prime contractor for the assembly and test of the production units is General Motors, AC Electronics Division in Milwaukee, Wisconsin. The on-board navigational computer and the optical subsystem, including a space sextant, sunfinders, and necessary display equipment, are produced, under subcontract, by the Raytheon Company of Waltham, Massachusetts, and the Kollsman Instrument Company of Elmhurst, New York, respectively.