In the event that spacecraft availability alone becomes a pacing item for the Apollo Applications program because of Apollo priorities, it is possible to reuse previous flown spacecraft. Studies have been completed on the feasibility of this approach and appear encouraging. It is planned to turn over one or two of the first Apollo earth orbital Command Modules to the Apollo Applications program organization for experimental refurbishing, after they have completed their assigned missions. This work could be undertaken by the Apollo Applications program industrial team charged with experiment integration; it is not now planned to add such a task to the workload of the basic spacecraft production organization. Refurbished spacecraft, then, could be available in 1969 to support Apollo Applications program flights without interference and in parallel with Apollo missions.

The following specific tasks will be implemented and/or furnished by the spacecraft modification contractor:

1. Furnish the required engineering, development, and test effort to produce a final detailed hardware design for the Command-Service Module modifications.
2. Fabricate, assemble, test, and install the modifications in the Command-Service Modules (new or refurbished) in kit form or by other appropriate methods.
3. Perform the necessary engineering analysis to determine the extent of renovation necessary to accomplish the refurbishment of previous flown command modules and refurbish two previous flown Apollo Command Modules.
4. Perform tests to assure that the refurbished and modified command module and the modified service module are fully integrated, operational and ready for assembly into a flight article.

The revised mission plan includes a new single launch, uprated Saturn I manned mission in the last half of calendar year 1968. Assuming that the Apollo program is successful in transferring its flight activity to the Saturn V vehicle in mid-1968, then a single launch mission employing an uprated Saturn I vehicle and a Block II Command-Service Module identified as AAP–IA could be available for flight in the fall of 1968.

This mission would have the primary objective of conducting science and technology experiments which have been removed from the Apollo program. As I have stated, current plans for Apollo earth orbital missions call for concentration solely on qualification of Apollo-Saturn space vehicle systems and flight operations to provide the earliest possible availability of the lunar mission configuration.

As many as possible of the experiments already under development for flight in Apollo would be integrated with the AAP–IA Command and Service Module at the Kennedy Space Center. The mission would be of a nominal 14-day duration at an altitude of approximately 125 nautical miles and an orbital inclination of between 28½° and 50°, as may be required by the experiments. Included in the experiments for AAP–IA would be the earth orbital test of the lunar mapping and survey system, which can form the basic experiment carrier for integrating other experiments. In this way, it appears possible to minimize the work required on the Command and Service Module after it is delivered to Kennedy Space Center in the standard Block II lunar configuration.

The Workshop mission, utilizing two uprated Saturn I launches, would be the second mission in the revised Apollo Applications program plan and would be flown approximately 6 months later than provided for in the current plan. Current assessments of the launch dates for the Orbital Workshop 28-day mission and the Apollo Telescope Mount 56-day mission indicate approximately 6 months delay from the previously planned 1968 launch dates for those missions. The earliest possible availability of Apollo Command and Service Modules for use on these two Apollo Applications program missions now appears to support an early 1969 launch of the Orbital Workshop and a mid-1969 launch of the Apollo Telescope Mount. There will be a mission flown between the Workshop and Apollo Telescope Mount mission which would be a single uprated Saturn I launch of a refurbished command module to be used for resupply and reuse of the Workshop. Following the Apollo Telescope Mount mission, a second refurbished command module would be launched to resupply and further extend use of the Workshop-Apollo Telescope Mount cluster.

Earth orbit missions in 1970 and 1971 would be essentially unchanged from the previously approved plan with Apollo Applications experiments being major payloads to be carried and utilized in conjunction with the Workshop. Alternate plans provide for launch of a second Workshop and Apollo Telescope Mount in 1970.