Answer 9(b). The current recurring production cost for an uprated Saturn I and a Saturn V delivered to Cape Kennedy is $42 million and $163 million respectively.

Answer 9(c). The estimated cost per vehicle for those funded in fiscal year 1968 for Apollo Applications is $39 million for the uprated Saturn I and $193 million for the Saturn V. The unit cost is greater for the Saturn V than in Apollo since the follow-on production rate is lower than Apollo.

Question 10. How many uprated Saturn I and Saturn V flights does NASA currently envision for the Apollo Applications program?

Answer 10. The total scope of the Apollo Applications program is not measured in a specific number of flights but in a planned rate of mission capability over the next several years. The total number of missions in the program will depend upon progress and successful achievement of sequential objectives, upon problems encountered, and upon the resources available.

Question 11. Is it expected that follow-on orders for Saturn/Apollo hardware will be fixed price contracts or will NASA continue to use incentive contracts?

Question 11(a). What was the nature of Saturn/Apollo hardware contracts awarded with fiscal year 1967 funds?

Answer 11. It is expected that NASA will continue initially to use incentive contracts for follow-on orders for Saturn/Apollo hardware in order to continue to motivate the contractors to increase their efficiency and reduce costs, while producing the best possible items.

It must be noted that as yet many of the Apollo and Saturn engines, stages, and modules have not been flown a sufficient number of times to establish the production configuration. Changes are still anticipated and drawings and specifications are constantly undergoing revision. As experience is gained in the production and performance of these items, and when cost data permits an accurate forecast of costs, full consideration will then be given to firm fixed price (FFP) contracts for later follow-on orders.

Answer 11(a). The major AAP hardware contracts presently utilizing fiscal year 1967 funds are:

(1) *S-IB stage.*—Contractor, Chrysler Corp.: Cost plus fixed fee (CPFF) type contract for long leadtime materials, components, and parts, including engineering support, necessary to maintain a follow-on capability at the rate of four uprated Saturn I's per year. The next procurement phase which will specify the fabrication, assembly, and delivery of stages will utilize incentive contracts.

(2) *S-IVB stage.*—Contractor, Douglas Aircraft Corp.: CPFF type contract for long leadtime materials, components, and parts, including engineering support, necessary to maintain a follow-on capability at the rate of four uprated Saturn I's per year. The next procurement phase which will specify the fabrication, assembly, and delivery of stages will utilize incentive contracts.

(3) *H-1 engine.*—Contractor, North American Aviation, Rocketdyne Division: Fixed price incentive (FPI) type contract for production and delivery of 60 H-1 engines.

76-265 O—67—pt. 2——37