

STATEMENT OF DR. WERNHER VON BRAUN

PART III. APOLLO APPLICATIONS PROGRAM AND FUTURE PROGRAMS FEBRUARY 10, 1967

Mr. Chairman, gentlemen, my presentation this afternoon will cover the Apollo Applications Program, and, in more general terms, some thoughts about our space program of the future. I will also touch upon the Voyager Program which, as you know, would send an unmanned probe to the planet Mars. Voyager is not a Manned Space Flight Program; it is under the cognizance of Dr. Newell's Office of Space and Applications. Marshall will play at least the role of launch vehicle supplier for this program because Voyager will fly aboard the Saturn V. It is possible that we shall also play a major part in the development of the interplanetary spacecraft. Finally, I would like to say a few words about potential applications in space of nuclear propulsion.

You have just heard a comprehensive report by General O'Connor on the status of our Saturn Program for Apollo. Perhaps the best way to begin a discussion about our next steps in space is to catalogue the manned space flight capability our country will have after the Apollo hardware and supporting capabilities become fully operational. This chart lists these capabilities.

First, Apollo will provide us with a capability to conduct manned space exploration as far out as the distance to the moon, about 250,000 miles from earth.

It will provide us with the capability to make a manned lunar landing and allow two men to spend 36 hours on the lunar surface.

Apollo will give us the capability to accommodate a three-man crew for a period up to about 2 weeks in earth orbit.

The flight hardware which will be provided by the Apollo Program includes two launch vehicles, the Up-rated Saturn I and the Saturn V, and a spacecraft consisting of a command and service module, and a lunar module. The lunar module, in turn, is a two-stage rocket consisting of a descent stage and an ascent stage.

The development and manufacture of all this hardware, as well as the operations capability, are the product of a unique resource base which can readily be employed for our next steps in space. We have our worldwide data acquisition network. We have the factories and the laboratory and test facilities, such as Sacramento, Mississippi, Cape Kennedy, Houston and right here in Huntsville—about \$4 billion worth of Government investment.

And all of this is undergirded by a highly skilled manpower base. Today we have about 290,000 people in the Apollo program, about 60,000 less than the peak figure of 350,000 about 1 year ago. We believe that the \$20 billion investment in our manned space capability is really best manifested by these people. That's the greatest