

supported the idea that this was not properly synchronized. I referred you exactly to the point in the PSAC report. I wonder if you might enlarge on that a bit since we didn't have an opportunity to do so at that time.

Dr. MUELLER. I would be pleased to. I believe you are referring to the passage on planetary exploration.

Mr. DADDARIO. Yes, because you just touched that. I thought at this stage of the game that question would again be appropriate.

Dr. MUELLER. Let me say that the PSAC report, in general, has supported the immediate plans of NASA. I am thinking of the manned orbiting telescope work and the long duration flight activities.

Mr. DADDARIO. Yes; there is no question about that. I agree with the idea that we ought to be involved with a man in these missions. I was concerned because they showed an agreement with that principle but concern about the way you had programed your plans for the future with some criticism about the lack of synchronizing the manned and unmanned missions. I recall that the major reason you could not make a decision at this time was because you did not have available to you the information which you would some year or two later as you develop activities of this kind. To make such decisions at this time would be, as I understand it, premature and might lead you to misjudgment.

Dr. MUELLER. Precisely. The basic organizational structure of NASA has been set up to provide for coordination of our planning activities. The PSAC report reflects the fact that we have all agreed that we ought to go forward with Voyager at this point in time in order to provide for early information about the environment of first the near planets and then the far planets.

At the same time we are continuing in our planning studies to examine alternatives between continued use of the Voyager and the use of a manned vehicle, first in a flyby mode and then eventually leading to a manned landing. We have carried on a fairly extensive study effort in the past year in this area and that study effort has been quite well coordinated. We have some five or six coordinating panels in NASA. Mr. E. Z. Gray, is our representative. Mr. Cortright is the OSSA representative, Mr. Eggers is the representative of the OART. We do coordinate our planning. In order to have meaningful alternatives one has to define the alternatives and then examine the tradeoffs between one set of missions and another set of missions so we have a meaningful basis for judgment between the alternative of a manned flyby and an expanded Voyager program. This will enable us to understand what it costs and what can be gained from each one of these approaches.

We are still at that point in time when we have to define these two approaches clearly and then make the tradeoffs. We do expect and plan to make those tradeoffs as our knowledge improves both as to what man's capabilities are and what his usefulness is as our studies define clearly just how to go about doing these very complex missions. They are very complex whether they happen to be manned or unmanned. I think that all of the groups that have been examining the future of manned space flight have concluded one thing. They are sure that man will eventually want to carry out planetary explorations for a number of reasons. Each group may have a different rea-