

Mr. GURNEY. What about the leaders in the various scientific fields? Do industries such as Douglas, for example, brief those people the way you are briefing us?

Mr. DORRENBACHER. Where we have some specific requirements, NASA has built some direct lines of communication. In particular, astronomy has received much attention, and that segment of the scientific community is informed and fully cooperative. The cooperation is beginning to pay large dividends in the form of specific requirements for equipment that the scientists most urgently need in the space vehicles. Industry can define scientific requirements on paper but, in the final analysis, it is imperative that the user-scientist make specific recommendations.

Mr. ABLE. Adding to that, Douglas has a corporate scientific advisory board. The people who staff this board are outstanding scientists. For example, Dr. Libby, the Nobel Prize winner, is a member of this board, and he is also a member of the Douglas board of directors. The members of this corporate scientific advisory board meet with the officers and directors of Douglas; they are thoroughly familiar with our work, and they are very enthusiastic about it. Because of their enthusiasm, they devote a lot of effort to keeping the rest of the scientific community informed. If you remember, this kind of enthusiasm is what we predicted over 2 years ago. Now it has become easier to get scientific cooperation.

Mr. FREITAG. I think that the President's Scientific Advisory Committee itself is an excellent example of the improvement that has come about. I believe that its membership consists of nearly 100 of the top scientists in this country. They devoted all of last year to many, many briefings, conferences, and subgroup meetings in the process of making a critical appraisal of all aspects of the space program. The PSAC report that we are talking about represents their collective opinion about where the program stands from a scientific point of view. This is really a big step forward from 2 years ago.

Mr. DOUGLAS. Right here, at Huntington Beach, we are supporting a fairly expensive program of pure science; our corporate research organization is essentially autonomous. It has a charter to investigate all kinds of scientific phenomena. For example, one of our scientists, who is a rock expert, can hardly wait to get to the Moon. He has a technique for getting water out of the rocks. The day that he can get out on the Moon with his rock pick, and make a practical experiment in water recovery, and when other scientists like him have and opportunity to exercise their disciplines, the entire scientific community will have been enlisted in the cause of manned planetary exploration.

Mr. FREITAG. One of the important factors in this change of attitude on the part of the scientific community has been the change in the emphasis of investigation that was brought about by the advent of the space age. Ten years ago, the scientists in positions of greatest authority were extremely competent specialists in their own field, but since the space activity was so new their specializations did not include space-oriented activity; those scientists did not have time to go back and become specialists in space. Now, however, younger men are beginning to fill the influential positions in the scientific community.