

advance technologies is available now, it will be possible to exercise our national options, after which, operational equipment can be available in 10 to 20 years. By that time, our space program will become commercially profitable and self-sustaining.

We are all aware of the difficult problem imposed by financial limitations. However, this Nation has already made a very large investment in people. The reservoir of scientific and engineering experience that these people represent is a national resource of incalculable value. It is unthinkable to allow a situation to occur that would dissipate that resource. It is a practical fact that any significant reduction in the technical population of the space community will create a gap in our technological capability that will be extremely difficult to repair. This is a national problem; but industry is affected in the same way. For example, a 25-percent reduction in the technical population at Douglas would disrupt the continuity of the company's technological capability to an extent that could not be repaired for years.

There is no way to rebuild the lost capability except through a time-consuming training program. The people who are lost by any company cannot simply be hired back. They will take other employment and many of them will move to positions outside the aerospace business, and thus be lost to the entire industry. If the technical population is reduced now, and 2 years later it is necessary to build it up again, irreparable damage will have been done. Consequently, Congress is faced with the problem of having to decide at what level the technical population should be sustained; if that level is less than what it is today the space program will have to be adjusted accordingly. But if a reduction is not what is planned, then a 20- to 30-percent loss in population must not be permitted to occur by default. Default, in this instance, will occur because the Apollo program technology, and the technologies of other programs now reaching the hardware stage, are nearing completion. With no new advanced technology programs to undertake, a de facto reduction in the technical population is going to occur.

This Nation's reasons for going into space are well known. Those of us who have dedicated our professional lifetimes to that pursuit, confidently anticipate that the space business will be commercially profitable. I believe that both Government planners and management in the space industry are in basic agreement about what has to be done to put the exploitation of space on a paying basis. I believe that, in 20 years, work being done from space platforms will be accomplished on a paying basis. The sequence of events that I have just described will lead to that conclusion. Beyond 20 years, changes in orders of magnitude will be achieved.

Mr. TEAGUE. Jim, have you read the progress report from the advisory board, the President's Science Advisory Committee (PSAC) report?

Mr. DORRENBACHER. No, I have not. I have heard of it but I haven't had an opportunity to read it.

Mr. FREITAG. In that report, for example, the committee members agree that the orbiting workshop effort should be continued, but they also say that we should take a long look at what we do after the first workshop. An important point is that costs will have to be reduced