

The right number of research paths to support does depend, in my opinion, on how critical the project is and on how uncertain the outcome is, as well as on the cost of supporting alternate efforts. For example, as we pointed out in our book, it may have made sense to develop two intermediate range missiles—Thor by the Air Force and Jupiter by the Army—but not to buy quantities of both for operational use.

We also went on to say that there should be the greatest amount of duplication in exploratory development and research, where the cost of trying another path, or testing it, is usually a tiny fraction of prototype fabrication costs. It seems to me that Secretary McNamara's recent order specifically recognizes this point.

In the chapter on research and development in our book we were dealing mainly with the problems of a Service or agency in managing a research and development program, and only incidentally with how many Services or agencies should support research and development in a particular area. One of our key sentences reads—

* * * there is nothing so stimulating to most people and organizations engaged in research and development as the fear that another company or laboratory will beat it to the objective.

I think it is quite clear we were talking essentially about competition between laboratories and companies and only incidentally about competition between agencies and Services.

Secretary McNamara's order does not preclude, it seems to me, diversification and competition of this beneficial kind. While the Air Force now has primary responsibility for the latter and more costly stages of development of military space systems, the healthy aspects of competition and diversification can be retained since there will be competition among project organizations within the Air Force and among the Government laboratories and private corporations engaged in space research and development.

The order also authorizes each service to support research and development in its early, inexpensive stages, and, of course, there is also NASA supporting research and development at all stages.

Mr. Chairman, I hope this somewhat more complete statement of the views expressed in our book will make evident the fact that they are not, on the face of it, in disagreement with the Secretary's recent action. However, be that as it may, I should like to make it very clear that I do not consider the opinions Mr. McKean and I expressed as private individuals to be binding on me now as an official of the Department of Defense.

Not only has there been a significant alteration in my responsibilities since writing this book, but it would be most unusual if my assumptions and conclusions did not undergo some sort of a revision after being subjected to the test of experience. And while I expect, of course, to express my considered best judgment on appropriate matters, for me to be doctrinaire in matters that are of only secondary concern to the Comptroller's Office would be in my opinion both ill-advised and unhelpful.

Some two and a half weeks ago I had occasion to discuss my feelings on this issue when I spoke to the Armed Forces Management Association. I said at that time—

* * * I do not consider my appointment as Assistant Secretary of Defense, Comptroller, in any way, a blanket endorsement of all the views contained in