

Mr. FINGER. That is correct. But we are also trying the other approach too. We just think you have to work very hard at this business of making the greatest use of scientific and technological developments and information.

Mr. RUMSFELD. So it is going to take an education process to get people to pose the problems?

Mr. FINGER. That is correct. It took Mr. Rumsfeld some education even to get the people with whom we work in industry, universities, and in our own laboratories, even within Government, to define the technology they were developing. A man who has to solve a particular problem of fasteners goes ahead and solves it for his application and doesn't realize he has developed a piece of technology in the process. We are getting better reporting from the people who work in our program. But you also have to define the problems that may be solvable by technology or scientific information that is developed.

Mr. RUMSFELD. It would seem that the Bureau of the Budget could play a rather significant role if it would require an indication, regardless of what Government agency is making the request for funds to undertake certain activities, that the agency has gone to an indexing system and talked to the people. Do they do that now?

Mr. FINGER. There are several approaches for doing this. Our approach is to a large extent experimental. We are trying to find ways of doing this. The Commerce Department has activities set up for this through the State Technological Services groups. We have got these Disseminating Centers that work with them, but many of these are Department of Commerce activities and activities of other agencies.

Mr. RUMSFELD. Maybe it would be helpful to the record to give examples where NASA has taken the initiative.

Mr. FINGER. Fine.

(The information requested is as follows:)

Listed below are some examples of where NASA has taken the initiative to transfer technology to other Government agencies:

1. Recent work of the Ames Research Center in the field of ablation materials for protection of satellites during reentry has produced a family of polymer composites that demonstrate fire suppressant and insulation properties that appear to be useful in a variety of military applications. This material appeared of sufficient importance to warrant bringing it to the special attention of the Director of Defense Research and Engineering by letter.

2. The results of research on the causes and prevention of aircraft tire hydroplaning were made available to the Bureau of Public Roads for use in bringing about a reduction in the number of accidents due to automobile tire hydroplaning.

3. The techniques of enhancing lunar photographs by means of computer analyses was found by JPL to be of value in the enhancement of X-ray photographs. This was brought to the attention of the National Institutes of Health which now plans to continue this JPL effort with NIH fund support.

On occasion a whole body of technology has been transferred to other Government agencies to enable them to better utilize systems developed by NASA. Examples of such transfer include:

1. To the Environmental Science Services Administration, technology pertinent to their use of meteorological satellites.

2. To the Air Force, technology pertaining to the Gemini reentry vehicle, in connection with the use of that vehicle, as the basic crew transfer means in the Air Force MOL Program.

3. To COMSAT, technology pertaining to communication satellites.

Within the regular framework of the Technology Utilization program new knowledge from the NASA R&D programs is being selected and organized by