Mr. MILLER. This is something that isn't generally known.

The CHAIRMAN. It is something that has been concerning me as to how the civilians are going to profit by this work.

General TRUDEAU. This work is all given to them.

For the future the Army should be given the authority for the development programs and projects related to its mission including air defense. And here I include the follow-on Zeus that would produce an anti-satellite weapon, unless something better comes up.

It is no more logical to give the Air Force the development of the entire space program than to give the Army the single responsibility for all programs on the land.

In my opinion, the Army should be given the operational satellite communications system—I should change that to say "should keep it," and also the Army should retain its responsibilities in the field of air defense and geodesy and mapping, as they are related to space, and as always within those terms, we loyally support the present directive.

Now, what are the capabilities and resources of the Army in connection with space programs? I would like to spell them out for the record, for once. This memorandum I have before me is the memorandum you referred to of 1959, upgraded as of 14 November 1960. It has not been changed since the recent directive has been issued. If I may, I will read it. It is fairly brief.

Q. What particular capabilities and resources in connection with space programs does the Army have?

A. 1. Signal Research and Development Laboratory:

a. Extensive electronic research facilities.

b. Have accomplished Tiros, Courier, and Score.

2. Ordnance Corps:

a. Ballistic Research Laboratories—DOPLOC surveillance system designed and constructed.

b. Diamond Ordnance Fuze Laboratories—micro-miniaturization of electronic components.

c. Army Ordnance Missile Command—White Sands Missile Range, Army Rocket and Guided Missiles Agency and Army Ballistic Missiles Agency.

3. Corps of Engineers:

a. Specialists in construction.

b. Army Map Service for space mapping program.

4. The Army Chemical Corps:

a. Biological warfare has application to space.

5. Quartermaster Corps:

a. Laboratories for clothing and feeding of human beings in hostile environments.

6. Transportation Corps—Vehicle Development for Booster Transport.

7. Army Medical Service—Biological Research on effects of ionization radiation.

"1. The Army has resources and capabilities for space activities in all of its seven technical services. Within the Signal Corps and in particular, at the U.S. Army Signal Research and Development Laboratory are extensive electronic research facilities and proven technical talent. Here the research and development phase of Project Tiros, the meteorological satellite, was accomplished and in addition, the main ground readout station exists.

"Project Courier, the delayed repeater satellite, was developed under the supervision of this agency.

"Project Advent, the 24-hour real-time repeater satellite, is being managed by the Advent Management Agency at Fort Monmouth.

"2. The Ordnance Corps has extensive capabilities at the Ballistic Research Laboratories, particularly in fields such as space surveillance. The Doploc system was conceived and built here and was employed in the "dark fence" to