NASA's experience in accelerating the transfer of space science and technology to other national goals or problems.

Dr. Astin, we would appreciate it if we could insert your first statement in the record, perhaps with a few general comments, and have you go right into your statement concerning the Laboratory Committee.

Dr. ASTIN. Thank you, Mr. Chairman. I would be most happy to do that.

(Dr. Astin's biography follows:)

DR. ALLAN V. ASTIN

Dr. Astin was born in Salt Lake City, Utah, in 1904. He received his bachelor's degree in physics from the University of Utah in 1925 and his PhD from New York University in 1928. From 1928 to 1930 he was a National Research Council Fellow at Johns Hopkins University.

Dr. Astin joined the staff of the National Bureau of Standards in 1932. His principal fields of work included precision electrical measurements, the development of early radio telemetering techniques, and during World War II the development of proximity fuzes. He was named Chief of the Bureau's Ordnance Development Division in 1948. The President appointed him as the fifth Director of the National Bureau of Standards May 31, 1952.

Honors and awards include the following: Gold Medal Exceptional Service Award, Department of Commerce; honorary Doctor of Science Degrees from Lehigh University, George Washington University, New York University; the National Civil Service League Award; the Rockefeller Public Service Award; the Scott Gold Medal of the American Ordnance Association; the Award to Executives of the American Society for Testing and Materials; and the Distinguished Alumni Award of the University of Utah. Dr. Astin is a Fellow of the American Physical Society, the Institute of Electrical and Electronic Engineers; an honorary life member of the Instrument Society of America, the Standards Engineers Society, Inc., and the American Dental Association. He is a member of the American Philosophical Society, American Academy of Arts and Sciences, and the National Academy of Sciences. He serves as the U.S. member on the International Committee of Weights and Measures and as Chairman of the Committee on Federal Laboratories of the Federal Council for Science and Technology.

STATEMENT OF DR. ALLAN V. ASTIN, DIRECTOR OF THE NATIONAL BUREAU OF STANDARDS

Dr. ASTIN. I would also like to offer to the committee two descriptive documents concerning the Bureau which I think some of you have seen. We would be happy to furnish additional copies if you wish.

First, the recently published history of the national Bureau of Standards called "Measures for Progress," and the other is our 1967 annual report.

The history contains a foreword by Dr. Vannevar Bush, in which he says, "If men are to accomplish together anything useful whatever, they must above all be able to understood one another. That is the basic reason for a National Bureau of Standards."

Our basic concern is, as Dr. Bush indicated, to provide the framework for communication, understanding, and exchange in the Nation's scientific and engineering community.

We have a second function, however, of providing a center for scientific and technical services to the Government and to the private sector.

The first responsibility consists really of two aspects. We must provide the national framework for uniform, consistent, accurate, compatible, physical measurement in this country. That includes provid-