

## PREFACE

This book is designed to provide a better understanding of a highly specialized Federal agency among the community of scientists and engineers that the agency serves directly, among the general public whose taxes support it but who are usually only indirectly aware of its existence, and among Government officials who depend on it for services or whose policy actions control its destiny.

The need for a definitive history of the National Bureau of Standards became apparent about the time of its 50th anniversary in 1951. This need developed primarily from the very rapid expansion of the role of Government in the scientific and technological progress of the Nation and the evolution of the Bureau's uniquely critical role in this expansion. A properly documented history would serve to clarify the dynamic nature of the Bureau's mission by recording its responses to the changing needs of the increasingly complex scientific activities within the Federal Government and throughout the Nation as a whole. Because of the intimate relationship of progress in measurement to progress in science, a history of the Bureau contributes to a better understanding of the extraordinary development of science and technology in this century.

A comprehensive and easily accessible record of the experience and goals of those whose achievements made the National Bureau of Standards what it is today should help significantly in making the organization even more effective in the future. The cumulative experience of those who managed the Bureau's affairs in the past would be of great value to those responsible for its future.

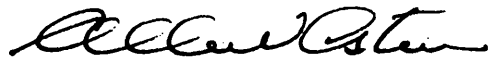
Initial efforts to produce an objective history from within the Bureau's own staff were unsuccessful. It was finally concluded that the task should be done by professional historians and writers. After an extensive survey of various alternatives, in 1960 we succeeded in obtaining the assistance of the distinguished scientific editor, James R. Newman, and of Dr. Rexmond C. Cochrane, an experienced and talented historian. Mr. Newman consented to provide general supervision for the production of the history, and Dr. Cochrane agreed to undertake the exacting professional task of research and writing. It is also most fortunate, and especially fitting, that Dr.

Vannevar Bush, architect of so much of the Nation's scientific and technological structure and a member of the Bureau's Visiting Committee from 1942 to 1946, should provide the history with a foreword.

Actual work on the history began in 1961, the same year that construction began on the Bureau's new laboratories at Gaithersburg, Md. It was hoped that the history would appear about the time that the new laboratories were ready. Although both projects have been delayed, publication of the history in 1966 will coincide with the expected move of the great majority of the Bureau's staff to the new site.

An important and planned byproduct of providing a history of the Bureau's development has been to bring together for ready reference the major documents bearing on important policy decisions and technical achievements. Extensive footnotes throughout the history identify these documents. Copies of all these, either in full size or microfilm, will be available in the Bureau's Gaithersburg Library.

The Bureau's first 50 years coincide almost exactly with the terms of service of its first four Directors. The history has been limited to this period, although a final chapter provides a brief résumé of major events since 1951, particularly the relocation plan. A detailed examination of the period of my own administration as the fifth Director will be left to later historians.



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