

INTRODUCTION

In this issue of the *Johns Hopkins APL Technical Digest*, we are recalling with affection the memory of Ralph Edward Gibson, who was Director of the Applied Physics Laboratory from 1948 to 1969 and who continued as an active Director Emeritus until the time of his death in 1983.

Born and raised in England and trained in Scotland as a chemist in the first quarter of this century, Ned Gibson joined the Geophysical Laboratory of the Carnegie Institution of Washington in 1924, becoming a member of the flourishing Washington science scene and laying out a career in high-pressure geochemistry. The outbreak of the Second World War shattered that serene scene, to which there would be no return. He joined the National Defense Research Committee in 1940. The organization and directorship of the Allegany Ballistics Laboratory, one of the key wartime centers for the development of solid propellant rockets, and a subsequent move to APL brought out personal characteristics and managerial skills that resulted in his leading those two large institutions and evolving a philosophy of research and development management that set the basic style and character of their operation.

In the following pages we present snatches of recollections that offer glimpses of Ned's character and of his way of operating. Fortunately, he had been working on autobiographical reminiscences from which we have extracted samples of his description of the Washington science scene in the 1920's and 1930's. We were also able to use an interview with Robert W. Hart, filmed nearly a decade ago, in which he summarized key events in his life with both charm and understanding. We have obtained from some of his close friends and associates recollections of specific interactions that they remembered with pleasure.

We were unable, though, to recreate in its full measure the man and his outlook. Ned was inquisitive and interested in the work of his co-workers. He scrutinized the scientific journals for new ideas that he would pass on to his friends. He was a superb conversationalist, filled with witty anecdotes and stories garnered and polished during a long life. He was a writer who took his literary assignments seri-

ously, working over his manuscripts with the care that they deserved.

Within a few weeks before his death, with undiminished enthusiasm for new tasks, he was an active member of a panel that was called together to review the place of the Research Center within the APL structure. A sampling of his informal comments must suffice to reveal some of his thoughts on research and creativity:

Prophets throughout the ages were people who could sense weak signals and discriminate them from strong signals and interfering noise. This Laboratory must remain sensitive to those signals. But you can't say to just anybody: "Be a receiver of weak signals." You have to pick the people who have this sensitivity with great care.

The easiest thing in the world is to think up something for somebody else to do. What you really need are people with ideas who push them and pester you with them.

It is rather foolish to say, "You must produce a good thing in a year." You have to wait a little while longer. But eventually the time comes when you must discriminate between indolence and genius.

In research there is a period of gestation. The initial phase is a very private thing. But if the idea has any kind of applicability you will eventually have to put a whole group of people to work on it, a group that gradually increases its emphasis on turning out a product that is reliable and that will work.

The urge to do research is, in essence, an addiction.

Ned Gibson touched the lives and careers of many friends in his chosen profession and of many colleagues who make up the staff of this Laboratory. In turn, they helped him build and maintain an institution of unique character and accomplishments.

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