

## Chapter 1 The Once and Future Company

The Corporation was organized to engage in the design, development, manufacture and sale of systems, equipment and components used in electronic data processing and automatic control for industrial, scientific and military uses.

—Initial prospectus for Control Data Corporation common stock at \$1.00/share, July 8, 1957.

On October 4, 1957, the Soviet Union launched Sputnik, the first space satellite. Physically it was a rather insignificant, 183-pound orbiting sphere the size of a basketball, but its impact on global politics and economics was destined to assume colossal proportions.

Three months earlier, on July 8, there was another launch. In the dry language of legal business documents, the “Nature of Business” statement noted above was at first glance unimpressive. But that business launch also proved to be historic and, indeed, would soon cross paths with that of U.S. space programs and the historical path of the Soviet Union. Control Data built its influence through an awesome array of products and services, corporate and industry initiatives, and national and international policy initiatives within a new but aspiring

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industry. That journey offers many lessons in innovation that are applicable to any business at any time. Companies change, but the inherent nature of innovation does not.

The wellspring of Control Data's successes was a reservoir of creative energy supplied by an extraordinary group of people and beginning with its 1957 launch and lasting more than thirty years. In the initial 1957 prospectus, the official beginning of Control Data listed the founding stockholders as: W. C. Norris, 70,000 shares; A. J. Ryden, 20,000 shares; Fremont Fletcher, 5,000 shares. The balance sheet showed total assets of \$25,000 and no liabilities.

During World War II, W. C. (Bill) Norris and Howard Engstrom were key members of the U.S. Navy's Communications Supplementary Activity—Washington (CSAW, pronounced “seesaw”), a group that focused on code-breaking. At the end of the war, when the group's members returned to civilian life, the navy wanted to continue its research and development of electronic tools and techniques for cryptanalysis. In 1945, with the navy's encouragement, Norris founded Engineering Research Associates (ERA), along with John E. Parker, the principal stockholder of ERA, Engstrom, and Ralph Meader. ERA's story is a fascinating one and is most interestingly documented in David L. Boslaugh's book *When Computers Went to Sea*.

Engineers founded ERA. Its innovation was nurtured and encouraged by one of the most technologically forward-looking units of the mighty World War II U.S. military. The navy insisted on reliability as well as performance, and kept an on-site presence to monitor developments at ERA. The results were impressive. ERA finished the construction and delivery of its first large-scale digital computer, the Atlas, by the end of 1950. After a remarkably short installation time for that period of eight days, CSAW's cryptologists began using the computer as soon as it was “powered up.” The machine immediately demonstrated remarkable reliability, requiring only sixteen hours of unscheduled maintenance in its first five hundred hours of operation.<sup>1</sup>

As the company grew, ERA had the typical startup's need for capital, and in 1951 it was acquired for \$1.7 million by Remington Rand. The previous year Remington Rand had bought another computer startup—the Eckert-Mauchly Computer Corporation—for \$538,000 plus 50 percent of the net profit from its patents for eight years. With those two acquisitions, Remington Rand had both a formidable technological lead and ready access to the most accomplished computer minds in the young industry. But over the next few years it proceeded to fritter away that lead to IBM and its hard-as-diamonds marketing machine. ERA was rightly referred to as an “engineer's paradise.”

That paradise, however, became “paradise lost” after the acquisition by Remington Rand.<sup>2</sup>

The struggles of ERA’s innovative and energetic young engineers against a highly bureaucratic and unimaginative culture shaped by decades of selling typewriters, was like watching a powerful young horse caught in quicksand. To make matters worse there was technical rivalry and management conflict between ERA and Eckert-Mauchly. The top management of Remington Rand and, later, Sperry-Rand had little skill and less stomach for managing such intensity. Far less equipped were they to devise successful strategies to compete with IBM.

By 1957, Bill Norris, Frank Mullaney, and Willis K. (Bill) Drake had had enough. Finding common ground with Arnold Ryden, they decided to start anew. They began with a novel financing idea that became an oft-told story in Minnesota lore: this upstart startup with no products and no revenues—not even a contract—sold stock to the public at a dollar a share. This unconventional beginning included selling stock at coffee parties in kitchens and living rooms. As a consequence, a wave of entrepreneurial startups in Minnesota was launched.

The company was incorporated on July 8, 1957, and opened its doors for business in September of that year with \$600,000 in proceeds from its public stock sales. The assets consisted of hard cash and the determination to build computers at the leading edge of technology. Control Data’s saga is first and foremost a collection of stories about innovation and, especially, the courageous individuals who recognized need and took the risks.

To better appreciate the stories of the protagonists, it will be useful to summarize a few facts and figures of the company’s history. A detailed history of the company and the leading figures would require volumes; the abbreviated history that follows is intended only to provide a frame of reference for the events and strategies described in the rest of this book.

#### **THE FORMATIVE YEARS—1957–1966**

For the first decade of the company’s existence, the computer systems business was the focus and driving force of its success. Its accomplishments in that regard were astounding. Before the company was a year old, the U.S. Navy had ordered the first model of Control Data’s computers. This wasn’t blind luck, but rather the result of the proven track record of the company’s people, especially premier computer designers Seymour Cray and Jim Thornton. Its first