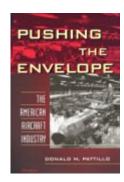
## H-Net Reviews in the Humanities & Social Sciences

**Donald M. Pattillo.** *Pushing the Envelope: The American Aircraft Industry.* Ann Arbor: University of Michigan Press, 1998. viii + 459 pp. \$45.00, cloth, ISBN 978-0-472-10869-5.



Reviewed by Virginia P. Dawson

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Pushing the Envelope by Donald Pattillo is the first comprehensive history of an industry not quite one hundred years old. Dr. Pattillo is an educational consultant in Acworth, Georgia, who has spent many years delving into primary sources and piecing together this intriguing, convoluted, and sometimes unheroic story. To Pattillo, the "aviation men" who built this industry were not short-sighted financiers, but risk-takers willing to invest in innovation. Unlike the automobile industry it is often compared to, the dependence of the aerospace industry on government contracting, especially during the Cold War, left it insulated from market forces and vulnerable to abuses triggered by human greed.

One of the main themes of the Pattillo's book is how government support influenced aircraft development during various periods of aviation history. Pattillo discusses how in the industry's early years, while European governments seemed to understand the military significance to the Wright brothers' invention, their efforts were viewed with skepticism and indifference in America. Capital was hard to come by for all the early

pioneers of flight. Glenn L. Martin, for example, used a flair for showmanship to build a public following and sell aircraft to wealthy sportsmen. Even friendship with Billy Mitchell could not assure him of military orders. Nevertheless, government procurement and airmail contracts kept the fledgling industry alive until Charles Lindbergh's historic trans-Atlantic flight in 1927. The aviation boom carried the industry through the Great Depression, giving rise to new firms and the emergence of the modern all-metal airliner. Up to 1938, however, the aircraft industry as a whole was still small, with barely enough domestic orders to stay viable.

All that would change with the coming of World War II, when rapid expansion made aircraft among the nation's largest manufacturing industries. Thereafter it remained an essential element of the defense establishment. Pattillo regards the decade of the 1950s as among the most "exciting and fruitful" for the industry--a decade when new models, the transition to jet propulsion, and missile development reflected a "pace of

progress" unequalled in the history of the industry (p. 199).

The final chapters of the book are in many ways the most enlightening because they break new historical ground. Pattillo discusses the difficulties and abuses of defense procurement in the new aerospace industry during the Cold War. "The inherent dilemma," he writes, "was that contractors were financially dependent upon government, while the government remained technologically dependent upon a concentrated industry" (p. 247). By the late 1960s, the aerospace industry was the nation's largest employer, with 834,000 people directly involved in building aircraft. However, it remained a highly competitive oligopoly, always dependent on the government for survival. Profits were never high, the financial risks daunting, and the opportunities for graft and corruption often irresistible.

The value of Pattillo's work for historians of business is the synthesis that he has produced. He provides the reader with the sweep of the development of the industry from its beginning to the present. He has avoided technical language while paying attention to technology, treated the financial aspects without excessive detail, and has produced a balanced and critical commentary on some of the more unsavory aspects of the industry. In addition to Pattillo's fine research and strong writing style, the numerous tables throughout the book, along with a detailed chronology of the aircraft industry, make the book a valuable resource tool. It should be required reading for all students of aerospace industry.

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