## About this Exhibit

 $\mathcal{T}_{\mathrm{his}}$  exhibit was developed from a collection of 150 photographs of the Wright brothers' experiments that were donated to the Academy Library by Mr. Fred L. Black. During the 1930s, Mr. Black was the Director of the Henry Ford Museum at Dearborn, Michigan. He worked extensively with Orville Wright during the move of the Wright family home and bicycle workshop from Dayton and re-assembly in the "Greenwood Village" at the Ford Museum. During the course of the project, Orville loaned Mr. Black a series of the original negatives of the only photographic record of both the glider and the first powered flights. Three bound sets of 150 photographic prints were produced from the original negatives. A set was donated to the Smithsonian Institution and another was preserved at the Ford Museum. In 1970, Mr. Black donated the remaining set to the Academy. This selection of photographs portrays a unique pictorial history of the Wright brothers' glider experiments and of their achievement of powered flight.

Excerpts from the Wright brothers' letters, diaries, and lectures are taken from: *The Papers of Wilbur and Orville Wright*, edited by Marvin W.
McFarland (McGraw-Hill, 1953); *Wind and Sand: The Story of the Wright Brothers at Kitty Hawk*, by Lynanne Wescott and Paula Degen (H. N. Abrams, 1983); *The Bishop's Boys*, by Tom D. Crouch (W.W. Norton & Company, 1989); and *Kitty Hawk and Beyond*, by Ronald R. Geibert and Patrick B. Nolan (Wright State University Press, 1990).







The Friends of the Air Force Academy Library was incorporated in February 1987 as a 501(C)(3) organization. Since its inception, this nonprofit, private organization has been organized and operated exclusively for charitable, educational, and scientific purposes. The principal aim of The Friends is to enhance the quality of the Academy's Library as an educational, research, scientific, and cultural institution.

The Friends' support enables the Library to broaden its scope, to pursue projects, to create publications, and to expand its activities and service beyond those made possible by Air Force allocated funds. This includes the enlargement and enrichment of the holdings of the Academy Library through gifts and bequests from graduates of the Air Force Academy, military members, civilians, and corporations.

For additional information regarding The Friends organization please write to: The Friends of the USAF Academy Library, Post Office Box 188, United States Air Force Academy, CO 80840-0188 or contact The Friends at friends@usafalibrary.com



The Centennial

of Dowered

1903-2003



"Isn't it astonishing that all these secrets have been preserved for so many years just so we could discover them!"

Orville Wright, June 7, 1903





the Centennial of Powered Flight 1903-2003

"We certainly can't complain about the place. We came down here for wind and sand, and we have got them."

> Orville Wright to his sister Katherine, late September, 1900

The two brothers made four flights that windy December day in 1903. At 10: 35 a.m., with Orville at the controls, the machine lifted off and flew for 12 seconds, covering 120 feet. On the fourth and last flight, Wilbur piloted the powered, heavier-than-air craft for 59 seconds and 852 feet over the ground (but about a half a mile in the air). Writing a decade later, Orville recalled how amazed he was that they had been so audacious as to presume to fly with such a primitive device. At the same time, however, he revealed the reasons for believing that they would succeed: "Yet faith in our calculations and the design of this first machine, based upon our tables of air pressures, secured by months of careful laboratory work, and confidence in our system of control developed by three years of actual experience in balancing gliders in the air had convinced us that the machine was capable of lifting and maintaining itself in the air, and that, with a little practice, it could be safely flown." Thus, the Wright brothers' bold and daring spirit combined with their knowledge and skill, enabled humankind to realize one of its centuries old aspirations: to fly, at will, above the earth to destinations that it alone had chosen.

