

Mach 3+: NASA/USAF YF-12 Flight Research, 1969-1979 (The NASA History Series)

*National Aeronautics and Space Administration, Peter W. Merlin
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National Aeronautics and Space Administration, Peter W. Merlin : Mach 3+: NASA/USAF YF-12 Flight Research, 1969-1979 (The NASA History Series) before purchasing it in order to gauge whether or not it would be worth my time, and all praised Mach 3+: NASA/USAF YF-12 Flight Research, 1969-1979 (The NASA History Series):

This publication provides a fascinating look at NASA's research program using the YF-12. Among the aircraft designs that transitioned from paper to hardware during the high-speed era, the Lockheed Blackbirds hold a unique place. The A-12, YF-12A, M-21, D-21, and SR-71 variants outperformed all other jet airplanes in terms of altitude and speed. To this day, they remain the only production aircraft capable of sustained cruise in excess of Mach 3. Developed in

utmost secrecy, they eventually became some of the world's most famous aircraft. Conceived originally as spyplanes, several Blackbirds saw service with the National Aeronautics and Space Administration (NASA) as research platforms. This monograph describes the first major NASA project involving the Blackbirds. Conducted with the U.S. Air Force (USAF) as a partner, the NASA/USAF YF-12 research lasted 10 years, and produced a wealth of data on materials, structures, loads, heating, aerodynamics, and performance for high-speed aircraft. More than two decades after the program ended, no comprehensive history of the joint program has yet been written. This monograph is an attempt to rectify that deficiency. Until recently, security restrictions prevented the release of some information relative to the YF-12. Since then, numerous documents have been declassified, and program participants are free to speak about previously restricted aspects of the project. Unfortunately, some who contributed to the NASA/USAF YF-12 investigations have not outlived the blanket of security that covered their work. Those who have must reach back more than 20 years to retrieve anecdotes and historical details. In a sense, the oral history interviews in this monograph amount to a sort of salvage archeology into the fading memories of the remaining YF-12 participants. Over the years, numerous books and articles have been written about the Blackbirds, but few give more than a brief description of the YF-12 and its role as a research aircraft. In this monograph, the author briefly describes the origins of the Blackbird family of aircraft and how NASA became involved with them. Each of the following chapters then describes a facet of the NASA/USAF YF-12 research program in detail.