

BOOK REVIEW

BOYD: The Fighter Pilot Who Changed The Art of War

Robert Coram

Published by: Little, Brown and Company; First Edition

ISBN 978-0316881463

pp 496



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This biography of John Boyd, a United States Air Force (USAF) fighter pilot, written by Robert Coram, a news reporter and journalist who was twice nominated for the Pulitzer Prize, was first published by Little, Brown and Company, USA, in November 2002. The success of the book was such that it changed the course of Coram's career, with the publisher giving him a contract of two more books with the stipulation that they were to be military biographies.

This book encapsulates the story of John Boyd, a maverick, genius and arguably one of the greatest fighter pilots who challenged and changed the concept of fighter flying along with the concept of war. Prescient in many ways, his thoughts and philosophy of the OODA (Observe, Orient, Decide and Act) loop is practised not only in warfare but in business strategies as

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well. Divided into three parts, the book covers John Boyd's journey as a fighter pilot, an engineer and a scholar who had a lasting impact on the USAF, the Pentagon and fighter aircraft design. With a career that spanned the latter part of the 20th century, Boyd served briefly in World War II and subsequently in the Korean and Vietnam Wars, and his ideas greatly influenced the prosecution of the 1991 Gulf War. After the 9/11 attacks on the World Trade Centre and Pentagon, numerous media stories surfaced on 'Fourth Generation of Warfare' which was a concept based on Boyd's work. During his initial years in the air force as a young captain, John Boyd became the first man to codify the elusive and mysterious ways of air-to-air combat. He developed and wrote the "Aerial Attack Study" which became the official air force doctrine, first in America and, subsequently, when it was declassified, for air forces around the world.

After doing his engineering at Georgia Tech, once back in the air force, Boyd wanted to develop his aerial attack study and he did it through the Energy Manoeuvring or E-M Theory. The E-M Theory, at its simplest, was a specific method to determine the specific energy rate of an aircraft. According to Boyd, if E-M could quantify aircraft performance, why couldn't the theory be used to design fighter aircraft? His journey took him through the Wright-Patterson Flight Dynamics Lab at Dayton, Ohio, and subsequently through the corridors of power at the Pentagon, where vested interests were pushing for the F-111 to be made the universal aircraft for the navy and air force. The F-111 was the first fighter aircraft to have a 'variable geometry' or swing wing and the air force was seduced by swing-wing technology. The aircraft in Boyd's opinion was too big, too expensive, and underpowered. This part of the book explains lucidly Boyd's fight against the air force's emphasis on technology rather than the mission, and the vested interests of the aircraft industry, in connivance with career officers, rather than national interest. Fighting against odds, with factual research and data, neglecting his career and family, Boyd was instrumental in the design of the F-15 and F-16 that subsequently were built against extensive pressure from the military industrial complex and the Pentagon bureaucracy.

The last part of the book deals with Boyd's life post retirement from the air force. Living a frugal existence, he continued to research on his thesis of 'Destruction and Creation', a thought experiment that took his audience through his exegesis on the nature of creativity. Working on his briefing on the 'Patterns of Conflict', Boyd espoused the time-based theory of conflict that whoever could handle the quickest rate of change would be the one who survived. Borrowing from Sun Tzu, and criticising Clausewitz, Boyd developed his most famous and least understood legacy of the OODA loop. Even though primitive versions of the OODA loop existed before Boyd, the key to Boyd's version was the need to execute the cycle in such a fashion as to get inside the mind and decision cycle of the adversary, leaving him disoriented and confused, with outdated and irrelevant information, to preclude him from functioning effectively. Boyd's philosophy left a lasting imprint on the Marine Corps, which changed its way of war-fighting and teaching in the Amphibious Warfare School against much opposition from senior officers.

This book is a brilliant example of the dedication, brilliance, grit, fearless determination, hard work and perseverance of an individual against all odds in a military organisation that by its very nature is resistant to change. Robert Coram has done an excellent job chronicling the life of John Boyd, a brilliant warrior and an iconoclast who is aptly labelled as one of the greatest strategic thinkers and the 'American Sun Tzu.' The book is a 'must read' not only for the military leadership but also the policy-makers and the bureaucracy apart from the historians and academia. Published more than twenty years ago, the book is as relevant today to all military personnel in understanding how individuals committed to an idea, uncompromising in their stand, in relentless pursuit of truth and national interest could change the course of aerial combat and warfare for eternity.