



THE AGE OF AIRPOWER

BY MARTIN VAN CREVELD

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Review by
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Martin van Creveld has a long history of scholarly writings that explore and challenge long-held beliefs and the “sacred elephants” of the military. His latest book, *The Age of Airpower*, is no exception. Continuing his tradition of exceptionally detailed research and extrapolation/interpretation of data, he traces the evolution of air power as an effective and relevant “third pillar” in the commander’s arsenal. Commencing with the development of flight pre-First World War (WWI), he tracks its spectacular rise from rather obscure and simplistic beginnings, through its expansion and technological development at all doctrinal levels (strategic, operational, and tactical) during the ensuing Second World War (WWII) and cold war years, culminating in its role in what has become the modern asymmetric battlefield of the post-Soviet era.

Of particular note is van Creveld’s look at the impact of the nuclear and missile age upon air power as a stand-alone capability. Once considered to be the mainstay of the world’s air forces, the bomber arm ran into technological and doctrinal trouble with the advent of ballistic missiles, intercontinental ballistic missiles (ICBMs), cruise missile capability, and nuclear warfare. Following

WWII, air forces worked very hard to maintain a role for themselves as the only arm capable of carrying out a nuclear strategic strike against an enemy force. However, with the advent of smaller nuclear warheads and an increase in missile range and accuracy, expensive bombers became redundant and gradually disappeared from the line of battle as a separate capability. In fact, ironically, increased accuracy of missiles has resulted in a diminishment of the strategic aspect of air operations. That is to say, all targets, regardless of range, may now be considered tactical in nature, which constitutes a dramatic change in paradigm.

The canvas of this book is very broad, encompassing comments upon the diminishment of the naval air arm in the post-WWII era, areas of cold war conflict such as the Middle East, the failure of air power to be able to effectively come to grips with insurgents in non-traditional combat environments, and the challenge of creating doctrine that establishes effective parameters of use for air forces. One of the strengths of this book is that van Creveld makes use of historical examples to reinforce and clarify his observations. This makes it much easier to follow and to understand the applications he discusses.

His work outlines several key elements of the air power story:

- **Rapid development.** Its rise and capability development has been unprecedented in military history. It may be argued that no other element of military force has benefitted from the advent of both the industrial/technological revolution and the requirements of war.
- **New view of warfighting.** The development of air power and its doctrine has had a fundamental impact on the evolution in doctrine of the other branches of the military and the paradigm through which commanders and governments envision and prepare for conflict.
- **Capability outpacing doctrine.** The vision of the role, use and effectiveness of airpower has been challenging and controversial because capabilities have evolved at a breath-taking rate, precluding the opportunity to draw upon historical precedents to evaluate future focus.
- **Research and development (R&D) prohibitively expensive.** Air power is rapidly becoming a potential victim of its own success in that cost required for R&D is outpacing the national level capacity to fund. This results in fewer states being able to create and maintain cutting-edge capability. This in turn results in diminishing markets for sale, higher per unit cost, and a subsequent reluctance of national governments to assume risk in the utilization of these assets.
- **Air assets and asymmetric warfare.** The rise of asymmetric-style warfare with its emphasis on non-traditional-style combat and lack of “hard targets” revealed a series of limitations in the

effective utilization of air assets as an efficient counter to these threats.

- **New technology.** The traditional sense that air forces, due to what we may call their “individuality and youth,” have always challenged the more traditional aspects of military force, and now find the challenges coming full circle as they grapple with the concept that technology may be undermining the requirement for manned aircraft and what the role will be for the aircrew of the future.

Overall, this book represents to the air force professional and the general reader a concise synopsis of issues that face not only air forces, but also governments as they balance defence needs with budgetary constraints. There are some very uncomfortable questions raised by van Creveld that challenge the very foundations upon which air forces are built and developed; questions that need to be asked and debated openly and frankly as we move into the future. ■

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Abbreviations

R&D	research and development
WWI	First World War
WWII	Second World War