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A Short Operational History of Ground Based Air Defense

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Idealists should avoid this book. It will depress them.

There are a number of recent books that deal with the weapon acquisition process. This book is different from the rest because it is mainly a collection of case studies.

Hampson begins with a tutorial about how defense acquisition works. He briefly describes the formal stages of the weapons acquisition cycle and indicates peculiar aspects of it for each of the services. He then addresses the way that the Pentagon and Congress work the defense budget. In this tutorial he indicates fundamental problems, recent and current reform efforts, and trends.

With the stage thus set, Hampson then presents detailed case histories of the following programs: the Trident submarine and missile, the MX and Midgetman missiles, the B-1 bomber, the air-launched cruise missile, the M-1 Abrams tank, and SDI. None of these case histories is a pretty picture. They provide stories of services clinging tenaciously to old technologies and outdated missions, of turf battles that lead to irrational compromises of system technical characteristics, of military leaders deliberately thwarting the desires of the President, and so on.

Predictable, inevitable, and wasteful are the words Hampson uses to summarize the bungling way America buys its arsenal of weapons. It is a story of failed leadership and of institutions which have gotten out of control. He believes this results from the competitive-cooperation of the political and bureaucratic interests that (mis)manage our nation and its defense establishment. He does not limit his call for reform to DoD, but also includes the President, Congress, and the entire DoD-related community—those who must do better if we are to extract ourselves from the present quagmire.

The case studies are fascinating. They reveal the multiplicity of pressures and decisions that shaped the programs described, each of which had its share of shameful and embarrassing aspects. It is unfortunate that Hampson does not include for comparison any case studies of "successful" programs, i.e., ones without such faults. The weakest part of Hampson's book is his approach to improving the weapon acquisition process. He allocates only a few pages in his concluding chapter to this subject, and his suggestions struck me as trite, neither demonstrably workable nor necessarily adequate.

The case studies make this book important reading for leaders in the defense community. They should challenge us all to do what we can to make things better in the future.

> D.K. PACE The Johns Hopkins University

Werrell, Kenneth P. ARCHIE, FLAK, AAA, AND SAM: A Short Operational History of Ground-Based Air Defense. Maxwell Air Force Base, Alabama: Air Univ., 1988. 198pp.

This book is filled with interesting historical data, but is singularly depressing in a most fundamental way. It demonstrates again that the American military has a hard time learning from its wartime experiences - both in tactics and in force planning. For example, the minimum bombing altitudes used early during the Korean conflict ignored the wealth of data from World War II. with substantial aircraft losses as a result. Likewise, over Vietnam during the late 1960s, "America fought a conventional air war with tactics and aircraft designed for nuclear war." Sadly, Werrell's book offers no indication that we have become wiser. Instead, our leaders appear to be following the paths of their predecessors. Up to now, leadership assumptions about future conflicts have proven to be in error (at least relative to ground-based air defense), and airmen have failed to appreciate the impact of groundbased air defense until it was too late. (In every conflict this century except World War I, the U. S. lost more aircraft to ground-based air defense systems than to hostile aircraft, with no indication that the future will be different).

Werrell touches on a few instances of artillery fire against balloons during the 19th century and notes that the first aircraft downed in combat fell during the Italo-Turkish War of 1912. He then describes ground-based air defense during the First and Second World Wars, the Korean War, Vietnam, the Arab-Israeli wars, the American air strikes in the Middle East (1983-86), the Indian-Pakistani wars, and the Falklands conflict in 1982; and he concludes with a few recent aspects of air defense. The author's treatment offers many insights. He addresses the crucial technical and operational factors of ground-based air defense, their effectiveness, and the counters to them. His look to the future is very cautious—he does not allow himself to speculate very much.

This is an important book. It offers in concrete form a challenge to break our historical pattern of preparing for the wrong war. Careful examination of how and why this happened in the past in the narrow field of ground-based air defense may give insights about how to avoid a continuing repetition of folly.

D.K. PACE The Johns Hopkins University

Kreis, John F. Air Warfare and Air Base Air Defense 1914-1973. Washington, D.C.: Office of Air Force History, United States Air Force, 1988. 407pp.

Projection of air power in contemporary warfare is a complex endeavor. Unfortunately, American defense analysts have not fully explored the insights of combat history relative to these activities, including air base air defense. Consequently, some of America's past approaches to air power appli-