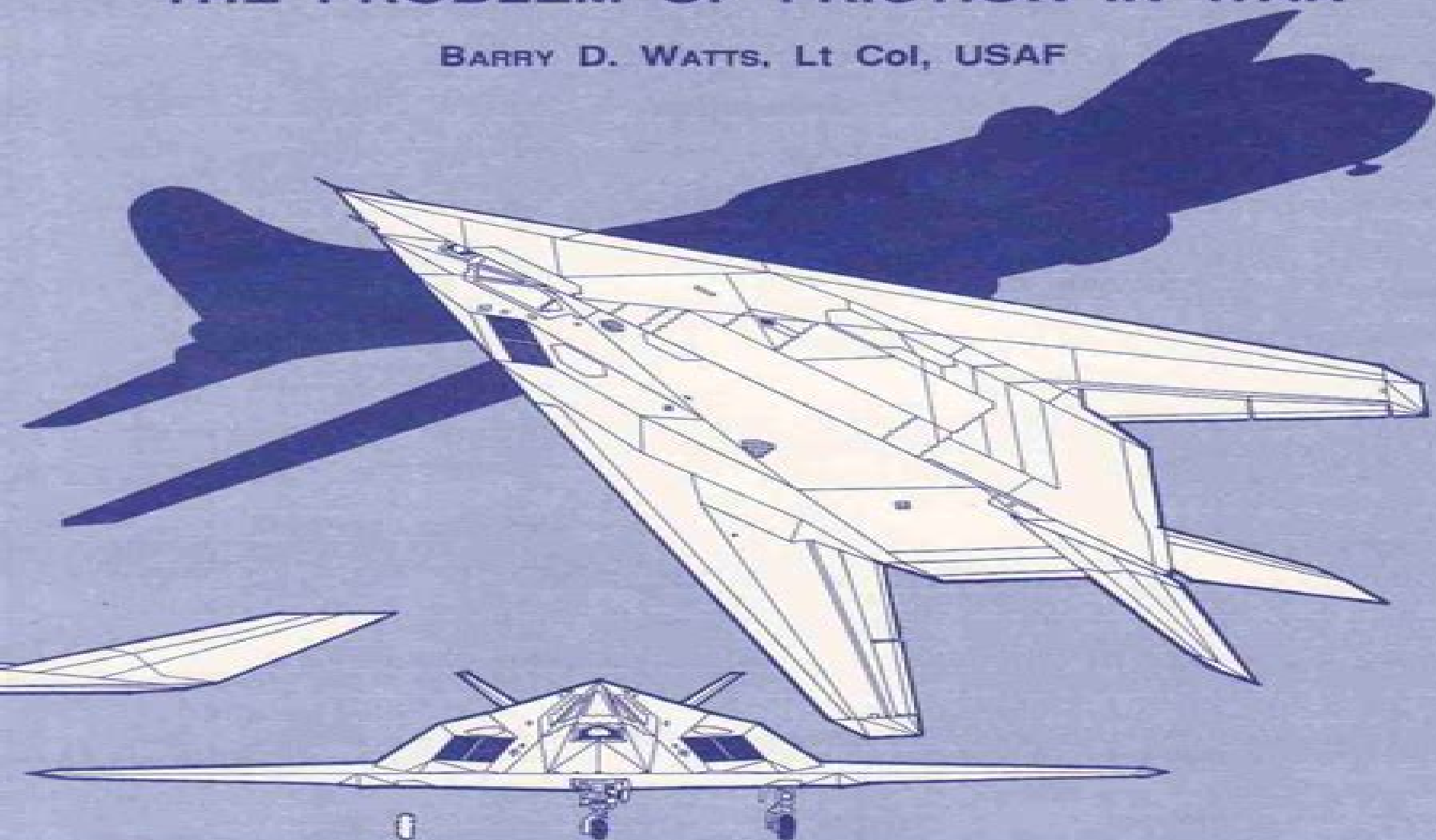


THE FOUNDATIONS OF U.S. AIR DOCTRINE

THE PROBLEM OF FRICTION IN WAR

BARRY D. WATTS, Lt Col, USAF



The Foundations Of Us Air Doctrine The Problem Of Friction In War

Matt Dietz



The Foundations Of US Air Doctrine The Problem Of Friction In War:

The Foundations of U.S. Air Doctrine Barry D. Watts, 2001-09-01 **The Foundations of US Air Doctrine** Barry D. Watts, 1984 This study analyzes airpower doctrine from the viewpoint of Clausewitzian friction The study concludes that American airpower doctrine has changed very little since the 1930s and that it is fundamentally flawed **The foundations of US air doctrine** Barry D. Watts, 1984 **The Foundations of U.S. Air Doctrine** Air University Press, U. S. Military, Department of Defense (DoD), Barry D. Watts, U. S. Air Force (USAF), 2017-12-10 This study revolves around friction meaning the ubiquitous uncertainties and inescapable difficulties that form the atmosphere of real war More specifically it attempts to utilize the Clausewitzian concept of general friction as a basis for assessing and if necessary reshaping the foundations of US air doctrine This critical application of friction gives rise to four primary conclusions 1 The key assumptions underlying mainstream US doctrine for conventional air warfare have not evolved appreciably since Air Corps Tactical School ACTS theorists elaborated their theory of precision industrial bombardment during the 1930s 2 Judged by their essential premises and logic post Hiroshima theories of deterrence are little more than an updating for the nuclear age of ACTS bombardment doctrine 3 Both ACTS bombardment doctrine and deterrence theory appear fundamentally flawed insofar as they omit the frictional considerations that distinguish real war from war on paper 4 Reflection upon the extent to which friction pervades the elemental processes of actual combat suggests that the range of situations in which greater numbers or superior weapons guarantee victory is relatively limited even in the age of thermonuclear weapons the outcomes of battles still turn more often than not on the character and intelligence of a few brave individuals The first step in giving substance to these claims is to explain what the central beliefs of US airmen traditionally have been The reader should be warned however that I have approached the writings on war of airmen like Major General Haywood S Hansell Jr and nuclear strategists like Bernard Brodie as well as those of Carl von Clausewitz himself from the perspective of two interrelated questions What overriding assumptions about war did these individuals embrace And what image of war as a total phenomenon is bound up in their assumptions In large part answering these questions is a matter of historical inquiry and to be candid I have been far less concerned with writing history for its own sake than with using the past to illuminate the problems of the present I therefore leave it to the reader to judge whether I have managed to do so without injuring the historical record Contents 1 INTRODUCTION Notes 2 DOUHET AND MITCHELL Douhet s Image of War Unrestrained Offense Mitchell s Aerial Knights Notes 3 THE FIRST US STRATEGIC AIR WAR PLAN Daylight High Altitude Precision Bombardment Doctrine AWPD 1 The Image of War in AWPD 1 Notes 4 THE POLICY AND STRATEGY OF DETERRENCE Brodie s Assumptions Brodie s Image of All Out War in the Missile Age A Paradox of Deterrence Theory Notes 5 A CLAUSEWITZIAN CRITIQUE The Core Beliefs of Mainstream US Air Doctrine Some Ramifications Friction Collective Risk Notes 6 FRICTION IN 20TH CENTURY WARFARE Part 1 Friction in the Combined Bomber Offensive World War II Weather

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 Revolution, 1300-2050 MacGregor Knox, Williamson Murray, 2001-08-27 The Dynamics of Military Revolution aims to bridge a
 major gap in the emerging literature on revolutions in military affairs suggesting that there have been two very different
 phenomena at work over the past centuries military revolutions which are driven by vast social and political changes and
 revolutions in military affairs which military institutions have directed although usually with great difficulty and ambiguous
 results By providing both a conceptual framework and a historical context for thinking about revolutionary changes in
 military affairs the work establishes a baseline for understanding the patterns of change innovation and adaptation that have
 marked war in the Western World since the thirteenth century beginning with Edward III's revolutionary changes in
 medieval warfare through the development of modern Western military institutions in seventeenth century France to the
 cataclysmic changes of the First World War and the German Blitzkrieg victories of 1940 This history provides a guide for
 thinking about military revolutions in the coming century which are as inevitable as they are difficult to predict **The
 Foundations of US Air Doctrine** Barry D. Watts, 1985 This study analyzes airpower doctrine from the viewpoint of
 Clausewitzian friction The study concludes that American airpower doctrine has changed very little since the 1930s and that
 it is fundamentally flawed **Monthly Catalog of United States Government Publications**, 1986 Interservice
 Rivalry and Airpower in the Vietnam War Ian Horwood, 2010 Explores the rivalry between the armed services of the U S
 relating to the employment of tactical airpower during the Vietnam War Not being an American Horwood is able to put a
 fresh perspective on this complex issue This study focuses on tactical airpower in S Vietnam between 1961 and 1968
 Horwood avoids a lengthy discussion of the air war over N Vietnam focusing instead on the combat operations in the South
 He examines a number of issues which are relevant to the use of airpower in irregular warfare command and control of
 airpower the use of airpower at the tactical and the operational strategic level of war the role of helicopters and different
 service understandings of the proper role of airpower in a counterinsurgency Science, Strategy and War Frans P.B.
 Osinga, 2007-01-24 John Boyd is often known exclusively for the so called OODA loop model he developed This model refers
 to a decision making process and to the idea that military victory goes to the side that can complete the cycle from

observation to action the fastest This book aims to redress this state of affairs and re examines John Boyd s original contribution to strategic theory By highlighting diverse sources that shaped Boyd s thinking and by offering a comprehensive overview of Boyd s work this volume demonstrates that the common interpretation of the meaning of Boyd s OODA loop concept is incomplete It also shows that Boyd s work is much more comprehensive richer and deeper than is generally thought With his ideas featuring in the literature on Network Centric Warfare a key element of the US and NATO s so called military transformation programmes as well as in the debate on Fourth Generation Warfare Boyd continues to exert a strong influence on Western military thinking Dr Osinga demonstrates how Boyd s work can helps us to understand the new strategic threats in the post 9 11 world and establishes why John Boyd should be regarded as one of the most important post modern strategic theorists

Fighting with the Soviets Mark J. Conversino, 1997 Conversino s story is as interesting as it is unfamiliar and succeeds in opening up Frantic s many dimensions including the personal as well as the political strategic and operational His revelations regarding the interactions between American servicemen and Ukrainian Russians are especially valuable and underscore the immense difficulties of implementing alliances at the grass roots level Dennis Showalter author of *Tannenberg Clash of Empires*

John Warden and the Renaissance of American Air Power John Andreas Olsen, 2007-06-30 Included on the Chief of Staff of the United States Air Force s reading list for 2008 and the Royal Air Force s Centre for Air Power Studies 2008 Reading List Dr John Andreas Olsen has written an insightful compelling biography of retired U S Air Force colonel John A Warden III the brilliant but controversial air warfare theorist and architect of Operation Desert Storm s air campaign Warden s radical ideas about air power s purposes and applications promulgated at the expense of his own career sparked the ongoing revolution in military affairs Legendary in defense circles Warden is also the author of *The Air Campaign Planning for Combat* republished by Brassey s Inc in 1989 Presenting both the positives and negatives of Warden s personality and impact in this objective portrait Olsen offers a trenchant analysis of his revolutionary ideas and great accomplishments

World War II in Europe, Africa, and the Americas, with General Sources Loyd Lee, 1997-08-21 A broadly interdisciplinary work this handbook discusses the best and most enduring literature related to the major topics and themes of World War II Military historiography is treated in essays on the major theaters of military operations and the related themes of logistics and intelligence while political and diplomatic history is covered in chapters on international relations resistance movements and collaboration The volume analyzes themes of domestic history in essays on economic mobilization the home fronts and women in the military and civilian life The book also covers the Holocaust This handbook approaches each topic from a global viewpoint rather than focusing on individual national communities Except for nonprint material the literature research and sources surveyed are primarily those available in English The volume is aimed at both experts on the war and the general academic community and will also be useful to students and serious laymen interested in the war

Two Historians in Technology and War , **The (Real) Revolution in Military Affairs** Andrei

Martyanov,2019-08-01 The liberal world order a euphemism for American global hegemony is crumbling at an accelerating pace While its collapse is tangible the outcome of such a collapse remains a matter of speculation and public debate The US is desperately seeking to preserve the status quo which rests primarily upon recognition of its military supremacy For millennia warfare has been a driving force behind changes in the geopolitical status of power configurations whether of peoples states or empires and it remains so today Accordingly short of actual warfare the assessment modeling of relative military power plays an inordinate role in the determination of national status Models of emerging changes in military capability range from relatively simple to extremely complex ones Viewing the evolution of the current system of international relations outside the framework of actual rather than propaganda driven military capabilities is not only useless it is dangerous since states mistaken assessment of their own and other states military power can lead to misadventures and catastrophic mistakes The United States efforts to preserve not just its dominance but the perception of its dominance are bound to fail for many important reasons none more important than what is often misidentified in past American military theoretical hypotheses about the future of warfare known generically as the Revolution in Military Affairs RMA This book explains why those hypotheses are failing and will continue to fail and addresses the real RMA In the end technological development in weaponry as a response to tactical operational and strategic requirements defines not only a nation s geopolitical status but determines the global order Assessments of military capacity if reality based serve as good predictors of the level of volatility in international relations and the level of violence globally This book gives an insight into the evolution of weapons and the way they influenced international relations in the 20th and 21st centuries It also defines Revolution in Military Affairs as manifested via policy politics and technology It reviews some models which are useful in assessing the current geopolitical situation This book also tries to give a forecast of the future development of warfare and the ways in which it is going to change the whole system of the international relations hopefully towards a new geopolitical equilibrium

Marshall's Great Captain Kathy Wilson,2024-04-23 On May 3 1943 dozens of airplanes could be seen flying in and out of Royal Air Force Bovingdon Airfield near London England Among the aircraft seen that day was a B 24D bomber named Hot Stuff which carried the Commanding General of US Forces in Europe Lieutenant General Frank M Andrews the officer charged with formulating a plan to invade the European continent Speculation was that General George C Marshall had called Andrews back to Washington DC leading many to believe that Marshall had another promotion in store for Andrews Tragically Andrews would never arrive While attempting to land in Iceland the bomber crashed into the side of a mountain with no survivors other than the tail gunner Andrews s personal papers were also destroyed In Marshall s Great Captain Lieutenant General Frank M Andrews author Kathy Wilson details Andrews s extraordinary life and career The first biography dedicated to the namesake of Joint Base Andrews this book sheds a light on Andrews s crucial role in orchestrating US involvement in World War II as well as the professional relationship and rapport that Andrews and Marshall shared

Drawing on extensive research Wilson raises Andrews's legacy to its legitimate place within the annals of both air power and World War II history and posits that there is a high probability that Andrews rather than Dwight D Eisenhower was Marshall's first choice for the office of Supreme Allied Commander Marshall recounted that Andrews was the only one he had a chance to prepare for such a command

Technology, Violence, and War, 2019-02-11 This volume explores the importance of technology in war and to the study of warfare Dr Guilmartin's former students explore how technology from the medieval to the modern era and across several continents was integral to warfare and to the outcomes of wars Authors discuss the interactions between politics grand strategy war technology and the socio cultural implementation of new technologies in different contexts They explore how and why belligerents chose to employ new technologies the intended and unintended consequences of doing so the feedback loops driving these consequences and how the warring powers came to grips with the new technologies they unleashed This work is particularly useful for military historians military professionals and policymakers who study and face analogous situations Contributors are Alan Beyerchen Robert H Clemm Edward Coss Sebastian Cox Daniel P M Curzon Sarah K Douglas Robert S Ehlers Jr Andrew de la Garza John F Guilmartin Jr Matthew Hurley Peter Mansoor Edward B McCaul Jr Michael Pavelec William Roberts Robyn Rodriguez Clifford J Rogers William Waddell and Corbin Williamson

Eagles Overhead Matt Dietz, 2023-02-15 US Air Force Forward Air Controllers FACs bridge the gap between air and land power They operate in the grey area of the battlefield serving as an aircrew who flies above the battlefield spots the enemy and relays targeting information to control close air support attacks by other faster aircraft When done well Air Force FACs are the fulcrum for successful employment of air power in support of ground forces Unfortunately FACs in recent times have been shunned by both ground and air forces their mission complicated by inherent difficulty and danger as well as by the vicissitudes of defense budgets technology leadership bureaucracy and doctrine Eagles Overhead is the first complete historical survey of the US Air Force FAC program from its origins in World War I to the modern battlefield Matt Dietz examines their role status and performance in every US Air Force air campaign from the Marne in 1918 World War II Korea Vietnam Desert Storm and finally Mosul in 2017 With the remaking of the post Vietnam US military and the impact of those changes on FAC the Air Force began a steady neglect of the FAC mission from Operation Desert Storm through the force reductions after the Soviet Union's collapse and into the post 9 11 wars in Iraq and Afghanistan Eagles Overhead asks why FACs have not been heavily used on US battlefields since 2001 despite their warfighting importance Dietz examines the Air Force FAC's theoretical doctrinal institutional and historical frameworks to assess if the nature of air warfare has changed so significantly that the concept and utility of the FAC has been left behind From these examinations Eagles Overhead draws conclusions about the potential future of Air Force FACs

Monthly Catalogue, United States Public Documents, 1986

The quest Haywood Hansell and American strategic bombing in World War II Charles Griffith, 1999 This book contains the following chapters concerning Haywood Hansell and American Strategic

Bombing in World War II the problems of air power 2 the early years education and acts 3 planning 4 the frictions of war 5 the global bomber force 6 triumph and 7 tragedy **The Art of War in the Network Age** Joseph Henrotin, 2016-10-03

Previous studies have looked at the contribution of information technology and network theory to the art of warfare as understood in the broader sense This book however focuses on an area particularly important in understanding the significance of the information revolution its impact on strategic theory The purpose of the book is to critically analyze the contributions and challenges that the spread of information technologies can bring to categories of classic strategic theory In the first two chapters the author establishes the context of the book coming back to the epistemology of revolution in military affairs and its terminology The third chapter examines the political bases of strategic action and operational strategy before the next two chapters focus on historical construction of the process of getting to know your opponents and the way in which we consider information collection Chapter 6 returns to the process of informationalization in the doctrine of armed forces especially in Western countries and methods of conducting network centric warfare The final chapter looks at the attempts of Western countries to adapt to the emergence of techno guerrillas and new forms of hybrid warfare and the resulting socio strategic outcomes

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