

## Preface

The “revolution in military affairs” or “military transformation,” as it is currently characterized in defense policy circles, has been the subject of a great deal of debate and speculation over the past decade. The idea that we are moving through a period when new technologies, particularly dramatic improvements in C<sup>3</sup>ISR—command, control, communications, computers, information, surveillance, and reconnaissance—harnessed to new operational concepts and organizational structures hold out the prospect of altering the nature of warfare is attractive, even if elusive. In policy circles and the academy, debates have raged at times between those who contend that the United States is on the verge of a new way of war and those who believe that warfare possesses innate characteristics, particularly “fog” and uncertainty that no amount of technology will ever dispel. The stakes have been raised far beyond mere academic debate because transformation has been seized upon by the Bush administration as one of its highest defense priorities and the heart of a new strategic approach committed to preventing any nation from surpassing or equaling the United States militarily.

The idea for this volume originated with the following question: “What will the international consequences be if the United States succeeds in realizing the dramatic increase in military effectiveness hinted at during the Gulf War?” It seemed logical to assume that the only way to get a handle on the broader international consequences of a U.S. military transformation was to understand how other militaries were likely to respond. To many, it is not self-evident that transformation will preserve America’s military advantage and political influence in the long run. It may undermine them. Whether or not transformation preserves, augments, or undermines American military power and international influence depends among other factors on how likely other states are to try to alter their militaries when faced with similar opportunities presented by the information technology revolution.

Diffusion is a topic of tremendous importance to the current transformation debate because it tells us about the paths others might take and the speed at which any U.S. lead might be diminished. Even if we were not in the midst of a revolution in military affairs of sorts, the diffusion of military innovations would still be a key issue for the United States, because much of American foreign and security policy counts on a large and long-lasting U.S. conventional superiority over most possible challengers in most types of warfare. Proponents of aggressive transformation seem to believe that if the United States could somehow achieve this “new way of war,” then America’s current military superiority could be sustained for a very long time. Implicit assumptions about diffusion underlie this larger belief. These assumptions need to be subjected to intensive scrutiny, particularly because they cut against prevailing beliefs in scholarly circles that the technologies and practices associated with the information revolution are going to spread widely and rapidly, even more so than those associated with past military revolutions.

Historically, as innovations associated with revolutions in military affairs have spread, they have invariably altered the balance of military and political power globally. Ever since Michael Robert’s seminal 1956 lecture on “The Military Revolution, 1560–1660,” historians have been debating the nature and consequences of military revolutions. The final outcome of revolutionary change is necessarily unpredictable. How many of the scientists who urged President Roosevelt to build the atomic bomb anticipated its secondary and tertiary impact on international relations? What we can say is that the global impact of military revolution hinges on whether or not others can assimilate and exploit the innovations associated with it. In other words, it depends upon how the revolution diffuses. One need only reflect upon recent events—the nuclear tests conducted by India and Pakistan, the slow-motion breakdown of the international restraints on Iraq’s ability to rearm, the war in the Balkans, North Korea’s ballistic missile tests, China’s saber rattling over Taiwan, the alarming reports for the Congress completed by the Rumsfeld and Cox committees—to see the consequences of the diffusion of advanced weapons and the capability to employ them.

In September 1997, the Joint Center for International and Security Studies, a collaboration between the University of California, Davis, and the Naval Postgraduate School in Monterey, launched a two-year study funded by the Smith Richardson Foundation to examine the international consequences of military innovation. This volume is the product of extended deliberations among political scientists, military historians, and defense practitioners about the international implications of revolutionary military change. The volume focuses on how innovative military ideas and practices spread, based on a recognition that discussion needed to move beyond a focus on the specific consequences of transformation

for U.S. doctrine, strategy, and policy. We believe that dynamics outside of the United States will affect the future balance of military power as much as, if not more than, developments inside the United States. From a defense policy perspective, the United States must be able to respond to other states that we should assume are attempting to leverage information technologies for their own purposes. A vast RMA literature focuses on the new technologies, organization, and doctrine required for transforming the U.S. military. Too little focuses on how the innovations currently being leveraged most effectively by the United States are being adopted and adapted elsewhere.

For our academic audience, the book reflects the recent renaissance of interest in the relationship between culture and security. We examine different processes of diffusion in a way that is sensitive to the organizational, social, political, and cultural contexts that influence how innovations are absorbed by different national militaries. The analytical framework emphasizes sociological perspectives on organizational change that focus on the roles of local culture and worldwide norms, and mainstream political science approaches like realism and bureaucratic politics, all of which are relevant to the study of diffusion. Some chapters privilege the social conditions that structure military change, both norms that are peculiar to the state or organization, and norms institutionalized in the global environment. Other chapters privilege the material conditions that structure change. The book synthesizes these various theoretical perspectives in order to present the complex and contingent nature of diffusion.

The volume was written with both academic and practitioner audiences in mind. From the outset, we consulted closely with policy practitioners to ensure the relevance of our research for the current policy environment. We are indebted to Capt. Ed Smith, USN (Ret.) and Col. John Nelson, USA, who attended workshops and helped us to draw out the policy implications embedded in our work. Briefings based on the research delivered to members of the military, defense, and intelligence communities were very well received. We owe a particular debt of gratitude to Mr. Andrew Marshall, Director of Net Assessment (Office of the Secretary of Defense). He attended the workshop held in Washington, D.C., and his enthusiasm for our ideas and for the insights from the case studies sustained our belief that we were making a valuable and much needed contribution to the current dialogue on transformation. We are honored that he agreed to write a foreword for the volume. The final product, we hope, has steered a middle path between the policy world and the academic world, and resulted in a scholarly work on military diffusion that has clearly delineated implications for practitioners making decisions involving the diffusion of new forms of military knowledge and technology.

A number of people helped make this volume possible. This project could not

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