Chemical-Biological Defense: U.S. Military Policies and Decisions in the Gulf War,

Pietro D. Marghella
Comparative analysis should instead generalize, with rigor, about similarities and differences with respect to common phenomena. This book is, however, a valuable addition to the complex body of literature on strategy, national security, and comparative political and military dynamics.

K. A. Beyohlow
Marine Corps Command and Staff College


Although we lived with the dangerous specter of nuclear attack for more than fifty years during the Cold War, concerns about the proliferation of weapons of mass destruction (WMD) have virtually exploded into our consciousness in the past decade. Since the demise of the former Soviet Union—once referred to as our “malefactor partner in the concept of mutually assured destruction”—our fears seem to focus far less on the threat of nuclear holocaust, and more on the threat of attack by chemical or biological agents. The logical point of departure for this shift in focus seems to be the Persian Gulf War, when the world learned of a rogue nation seemingly bent on proliferating these weapons of mass terror.

In this book, Albert J. Mauroni attempts a historical recounting of U.S. efforts to deal with chemical and biological warfare agents on the modern battlefield. Mauroni, a former U.S. Army Chemical Corps officer who currently works as a management consultant specializing in Department of Defense chemical and biological defense programs, provides a detailed look at what was essentially a “cold start” go-to-war effort on behalf of the U.S. armed forces. The consistent premise throughout this work is that no one in the Department of Defense (with the exception of the Army’s Chemical Corps) was even remotely prepared for an encounter with chemical or biological agents as it readied for war with Iraq. Convinced at the onset of Operation DESERT SHIELD that Saddam Hussein would indeed use WMD against U.S. and coalition forces, the Pentagon began what Mauroni describes as a “mad scramble” to train and equip U.S. forces to operate in the presence of WMD agents. He reviews the preparation to defend against exposure to these agents, and assesses U.S. efforts to protect its forces against a highly lethal asymmetrical threat. In addition, Mauroni devotes a chapter to the issue of “Gulf War illness,” providing a fairly meticulous and forthright discussion of this controversial subject. He concludes with substantive recommendations on where the future focus of U.S. efforts to deal with the burgeoning threat of chemical and biological agents should lie. At a minimum, Mauroni’s work at dissecting the policies and decisions of the Gulf War is important if only as a lesson that the United States must never again be so fundamentally ill prepared to operate in the asymmetrical environment.

There are criticisms to be made of this book, however. At the surface level, Mauroni uses far too many acronyms for the book to be easily decipherable for the non-Army (and especially nonmilitary) reader. Although he includes a list of abbreviations at the beginning to assist with the veritable “acronym soup” of abbreviations, it becomes confusing and tiresome to refer back constantly to a
glossary to understand what one is reading.

Additionally, Mauroni’s use of the term “chemical-biological” can lead one who is uneducated in the specific characteristics of chemical and biological agents to believe that there is no readily discernable difference between the two types of WMD agents. In reality, there is nothing farther from the truth. Chemical and biological agents are so different in their properties and potential effects on the human physiology that discussions about countering or mitigating their effects should remain separate. By consistently lumping them together, Mauroni gives the reader the impression that the measures taken for defense and consequence management against chemical-agent exposure will be essentially the same as those for coping with a biological threat.

Of greater concern, however, are statements made by the author in the first chapter. He describes his purpose in writing the book: “Only if CB weapons were used on civilians and population centers would they truly be ‘weapons of mass destruction.’ On the military battlefield, these weapons, shorn of the ridiculous air of menace given to them by politicians and the media, are merely another tactical-operational factor like enemy air attacks or unforeseen terrorist attacks; military forces can and do take steps to minimize the effects of chemical-biological contamination. If a military force invests a small amount of time and funds in planning, defensive equipment and training, the immediate threat of mass casualties is avoided, and chemical-biological weapons become merely ‘weapons of mass disruption’ [his italics] instead of destruction.”

I find these comments both naïve and dangerously out of touch with the reality of WMD agents, and certainly contradictory to U.S. efforts at counter-proliferation throughout the Department of Defense. Although we have taken steps to deal with the possibility of chemical exposures among our operational forces (which should be construed as tactical events in the scope and scale of their effects), calling a biological agent a “weapon of mass disruption” ignores its potential for strategic impact. The World Health Organization (which currently offers the most widely accepted casualty estimates for biological agents) predicts that the United States could incur more than 250,000 casualties in a targeted population of 500,000 from only fifty kilograms of weaponized anthrax; such an event could hardly be usefully characterized as a “disruption.”

There are other places where the reader may take exception to Mauroni’s statements—most notably, his comment in chapter 3 that in 1990 the “official U.S. policy was to reduce the likelihood of enemy chemical weapons use by threatening retaliation with similar munitions.” The United States never considered the use of chemical weapons in the Gulf War, since it had long before decided not to use chemical weapons as retaliation in kind. The author’s footnote in chapter 4 regarding the requirement for a company of bakers to augment a medical unit is flatly derogatory to the medical professionals who did so much to ensure that health-protection measures were in place during the Gulf War. His claim that the medics were ill trained and ill prepared to deal with contaminated casualties since “these practical issues had never surfaced in the minds of the medical community” is patently false. Several hundred volumes published since the First World War deal with the medical
handling of chemically contaminated casualties.

In the end, this work comes off as not much more than a “hoo ah” for the Army Chemical Corps, who are billed as having redeemed the Department of Defense’s collective ineptitude with respect to chemical or biological attack. While Mauroni does offer an accurate overall accounting of the Army Chemical Corps’s efforts to deal with the asymmetrical threat of chemical and biological agents on the battlefield, he gives little more than a passing nod to the overall efforts of the other services and their collective attempts to counter or mitigate this omnipresent threat. Readers familiar with the subject of WMD should be cautioned that there is much with which to find exception in this work. Readers unfamiliar with the subject should be careful not to conclude that the capabilities of the Department of Defense are so uniformly one-sided.

PIETRO D. MARGHELLA
Lieutenant Commander
Medical Service Corps, U.S. Navy


Is there need for yet another book on the role of the military in the information age? To judge by this volume, a collection of essays published under RAND’s Project Air Force, the answer is yes—but this may be twice the book we need. In this case, more than enough is not necessarily better. The Changing Role of Information in Warfare is part of RAND’s Strategic Appraisal series, and it primarily addresses the effects of information technology on American military planning and operations. The fifteen chapters provide a useful review of the dangers and opportunities that information technology presents to U.S. military forces. While originally intended for the Air Force, the work should interest a wider professional audience, especially because it includes a broad spectrum of views, ranging from techno-optimists to info-war pessimists.

The editors are well regarded authorities: Zalmay Khalilzad is a former assistant deputy under secretary of defense for policy planning, and John White is a former deputy secretary of defense. Many of the articles were written by well-known writers on strategy and information warfare, and the foreword is by Andrew W. Marshall, Director of Net Assessment, Office of the Secretary of Defense; he is considered by many to be among the foremost thinkers in the U.S. government on future threats and strategies.

However, roughly half the articles cover ground familiar to anyone who has been following the discussion in recent years about the importance of information in warfare and the dangers of computer warfare. These chapters might be useful, for example, to someone looking for a review of the various ways computer hackers can disrupt military operations. But because so much has been written on this constantly changing topic, the more technical chapters do not cover much new territory and are already slightly outdated.

The chapter on information-age terrorism, for instance, warns that future terrorist attacks may take the form of “cybotage” aimed at information infrastructure. This may be true, although it hardly is a new idea; moreover, so far in the information age, old-fashioned terrorism remains dominant, as the attack on the USS Cole reminded us.