



Sleepwalking to Armageddon: The Threat of Nuclear Annihilation

Edited by Helen Caldicott

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Reviewed by Col. Paul A. Sigler, U.S. Army

Countering WMD Graduate Fellow, National Defense University

Dr. Helen Caldicott has been writing passionately about the dangers of nuclear technology since her 1979 publication *Nuclear Madness: What You Can Do*. An Australian pediatric physician, Dr. Caldicott has long argued that nuclear weapons pose an existential threat to the human species, and that—from a medical and humanitarian standpoint—there is no such thing as “safe” nuclear power.

Sleepwalking to Armageddon: The Threat of Nuclear Annihilation is a seamless continuation of the themes of Dr. Caldicott’s previous work. This new collection of essays outlines the societal threats posed by nuclear weapons with the singular intent of mobilizing readers to take action to put an end to both the weapons and the industry that produces them. To accomplish this, Dr. Caldicott presents essays from a panoply of activists, journalists, and academics with specialties ranging from national security policy to anthropology. Several of these authors have advised the U.S. or Australian governments on arms control policy and negotiation. Nearly all of them are currently associated with think-tanks aligned with the anti-nuclear movement. Given this list of contributors, it is not surprising that apprehension over renewed tensions with Russia and unease over the nuclear policies of the Trump administration emerge as dominant themes of the book.

Both of these themes identify a credible threat to the stability of post-Cold War nuclear deterrence. Increased Russian investment and reliance on nuclear deterrence as a tool of statecraft, combined with Russian military actions to change boundaries in Europe, certainly appear to have increased the risk of a global nuclear exchange. Likewise, Trump Administration nuclear policy pronouncements about North Korea have created concerns among many observers that the United States might be adopting a more aggressive nuclear policy.

However, those looking for a balanced discussion of these topics within this book will likely be disappointed. Instead, a casual reader will come away from this work convinced that U.N. Secretary General Ban Ki-Moon was correct when he said that “there are no right hands for the wrong weapons.” Dr. Caldicott’s introductory essay makes clear that the purpose of this collection is to demonstrate that nuclear weapons themselves are the real problem, and that only complete nuclear prohibition can save the human race.

Caldicott attempts to bring the reader to this same conclusion through a well-crafted three-part argument in the form of collections of short works by authors representing numerous disciplines and backgrounds. Essays within part one focus on how the current structure and culture of the “nuclear weapon enterprise” heightens the risk of a catastrophic nuclear exchange—either through

crisis escalation, or as a result of human or machine error. Within part two, contributors analyze potential regional nuclear triggers and Trump Administration policies that could either increase or decrease the chances of conflict. Part three's essays summarize ongoing international efforts to ban or otherwise discourage continued reliance on nuclear weapons for security. Finally, the concluding essay of the book recommends the modification of U.S. nuclear command architecture to remove the President's unitary power to launch a nuclear attack.

Within part one, essayists place much of the blame for increased likelihood of nuclear conflict on the United States. Authors characterize U.S. stockpile modernization, expansion of NATO to Russia's doorstep, and the deployment of missile defense systems—occasionally referred to as “missile offense”—as provocations which have driven both Russia and China to upgrade their nuclear forces. The essential futility of investing in measures designed to “win” an unwinnable nuclear war is another consistent drumbeat within this section of the book.

Two essays within the first section of the book stand out from the rest. The first is from Alan Robock, an environmental science professor at Rutgers University and a member of the Intergovernmental Panel on Climate Change, who describes the potential climatic effects of a nuclear winter in a sobering reminder to the reader that a single U.S. or Russian decision could radically change the global climate for decades, thereby eliminating much of life on Earth. The second is from Bob Alvarez, a former Deputy Assistant Secretary for National Security and the Environment at the U.S. Department of Energy, who details the serious and extremely long-lived environmental dangers posed by plutonium reprocessing. Regardless one's position on nuclear policy, both of these essays invite serious reflection on the potential impact of a nuclear exchange and the difficult balance between protecting the nation and protecting the citizens living downstream from Hanford and Oak Ridge.

Massachusetts Institute of Technology professor Noam Chomsky leads off part two of the book with a discussion of how the safety of the nation and the world can be threatened by the very systems set up to protect it. The story of the Soviet missile officer Stanislav Petrov's refusal to pass on a false missile warning in 1983—unknown to the West until years later—illustrates how close the world has come to annihilation at several points during the Cold War. Other essayists in this section point toward several global flash points which could lead to a widening nuclear exchange unless nuclear command and control systems create more time and decision-space for leaders. Chomsky includes a comment from former U.S. Strategic Command commander General Lee Butler, who admitted that the world has survived the nuclear age thus far by “some combination of skill, luck and divine intervention.” The alleged inherent evils of the U.S. military industrial complex and overall U.S. responsibility for goading Putin into taking aggressive actions in Europe are repeatedly hammered home within the policy discussions in this section of the book. However, these excursions tend to distract the reader from the more unsettling question raised in Noam Chomsky's opening essay, specifically, “Do existing nuclear command and control systems now have sufficient safeguards to ensure that the fate of the world is never again left in the hands of a single missile officer?”

The final section of the book offers a review of several efforts to impose a worldwide ban on nuclear weapons, beginning with the 2014 Vienna conference on the humanitarian impact of nuclear weapons, and resultant Humanitarian Pledge signed by 127 countries. Essayists detail how recent UN General Assembly efforts to develop a treaty to ban nuclear weapons—combined with related initiatives by International Campaign Against Nuclear Weapons—seek to increase overall political and economic pressure on countries that accept protection under the U.S. nuclear umbrella.

Separate efforts aim to bring similar pressure to bear against the financiers of companies such as Lockheed-Martin and Raytheon which produce nuclear weapon and delivery system components. Finally, the “Nuclear Zero” lawsuits brought in the International Court of Justice by the Marshall Islands are meant to challenge the nuclear powers of the world to comply with their Treaty on the Non-Proliferation of Nuclear Weapons obligation to work toward denuclearization.

Absent from the conclusion of the book is an assessment of whether these international anti-nuclear efforts offer a reasonable possibility of success. The five nuclear-armed permanent members of the UN Security Council are unlikely to support any treaty that nullifies their nuclear deterrent capabilities. Moreover, efforts to shame nations that rely upon the U.S. nuclear umbrella are unlikely to outweigh the Russian and North Korean threats, which U.S. nuclear backing is aimed to deter. Economic pressure on nuclear suppliers and legal actions are similarly unlikely to change U.S. or Russian nuclear posture decisions so long as each nation perceives an existential threat from the other.

With solutions that strain credulity, and a general lack of consideration for the manner by which nuclear weapons can both enhance security and deter conflict, many security professionals might be tempted to dismiss this book altogether. Yet there are two very important reasons why that would be a mistake.

The first is that the ideas presented in this book are very accessible to many American voters—the majority of whom lie well outside the national defense community. The idea that nuclear weapons should be banned simply makes sense to many people, especially after their ghastly effects are described in detail. Skeptical voters beget skeptical political leaders, with follow-on implications to national security policy. Strategists would be wise to internalize the arguments ensconced within this book, which are likely to show up again within Congressional inquiries.

The second reason lies within an essay in part one of the book by Hugh Gusterson, Professor of Anthropology and International Affairs at George Washington University. Professor Gusterson provides a cogent analysis of the changing attitudes and beliefs of nuclear weapons designers working at Lawrence Livermore National Laboratories during the post-Cold War period when “the Russians hover[ed] between enemy and friend and the purpose of nuclear weapons [became] increasingly self-referential.” Gusterson found that the weapon fabricators—many of whom he befriended—shared many of the same attitudes toward nuclear weapons as the members of the nuclear freeze movement which he participated in during the 1980s. Notably, a former laboratory director told Gusterson that he wished that all world leaders were obligated to observe an atmospheric nuclear test every five years so that “they understand what they are screwing with.” Many anti-nuclear activists likely hold a similar sentiment—although they might choose a different method of proving the point.

Indeed, perhaps the greatest value of this book is that it can show where there is common ground. Both nuclear policy makers and members of the anti-nuclear movement can likely agree that reviewing the alert status for strategic nuclear forces and working to increase the time available for U.S. and Russian leaders to make nuclear decisions (thus reducing the role of “luck and divine intervention”) would make the world safer. Clearly, serious disagreements remain as to how missile defenses and nuclear force modernization could help bring the world community closer to that goal. All the more reason why this conversation, focused as it is on the common goal of a planet secure from nuclear Armageddon, must continue—and it goes without saying that any topic describable in terms of “common goal of a planet” should be of interest to the entire interagency. **IAJ**