

## FOREWORD

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Linton Brooks and Michael Wheeler

In the half century between the end of the Second World War and the collapse of the Soviet empire, nuclear weapons dominated American national security thinking. The prospect of a nuclear confrontation with the Soviet Union influenced American attitudes and actions throughout the globe. Starting with the early work of Bernard Brodie and with Albert Wohlstetter's seminal article "The Delicate Balance of Terror," American defense intellectuals developed a complex theory of nuclear deterrence. American officials spent time wrestling with such concepts as counterforce and counter value targeting, the importance of throw-weight, crisis stability, arms race stability, escalation control, extended deterrence, and, above all, with the difficult question, "how much is enough?" We argued over differences between deterrence and warfighting. We worried about maintaining a secure reserve to prevent global dominance by the Soviet Union after a nuclear exchange. We built NATO, the most successful peacetime alliance in history, around shared risks and responsibilities for nuclear operations. To help manage the nuclear confrontation, we led the way in developing bilateral and multilateral nuclear arms control regimes. So pervasive was the influence of nuclear weapons that, for many, the very word "strategic" lost its rich historic meaning and became simply a synonym for "nuclear."

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In hindsight, our theories were somewhat limited. Despite occasional entreaties to consider the impact of nuclear proliferation on stability, we largely failed to think strategically about nuclear weapons possessed by third countries, assuming they would somehow be subsumed in the US-Soviet confrontation. We paid no meaningful attention to nuclear terrorism. Although we studied the role of limited nuclear exchanges within a broad conflict with the Soviet Union, we acted as though nuclear weapons, once used in any fashion, would inevitably lead to a massive exchange.

With the collapse of the Soviet Union, this intellectual legacy quickly came to be seen as largely irrelevant. Nuclear weapons became, for many, a thing of the past, like the horse cavalry or the coast artillery—capabilities that once were important but that could now be safely ignored. Some ignored nuclear policy because they could not see any relevance for nuclear weapons in the post-Cold War world. Others saw the demise of the Soviet Union as an opportunity to reduce reliance on weapons they had always considered immoral. But most people didn't think about nuclear weapons at all, despite the wake-up call that international inspectors provided when they revealed the depth of the Iraqi nuclear weapons program after the First Gulf War. Throughout the 1990s, decision-makers and defense intellectuals turned their attention elsewhere.

A decade after the collapse of the Soviet Union the nuclear tests by India and Pakistan in 1998, growing concern about the future direction of China and the Russian Federation, the recognition that states like North Korea and Iran were seeking to develop nuclear weapons, and the threat of nuclear terror in the aftermath of September 11, 2001, combined to make it clear that, no matter what some individuals wished, nuclear weapons remained very much an important part of the post-Cold War world. Gradually, beginning with the 2001 Nuclear Posture Review, the policy community began to re-engage on the subject of nuclear weapons. Then came Iraq, which increasingly dominated national security thinking both inside and outside of government, driving out all other considerations. As a result, the stark reality is that while the world has changed dramatically since Christmas 1991 when General Secretary Gorbachev announced the end of the Soviet Union, nuclear thinking has not advanced to match those changes. Despite sporadic calls by lonely voices, there has been no national discussion or debate on this important topic outside the very small community of nuclear specialists.

In 2002, when it was still possible to believe that a national dialogue on the future of nuclear weapons and nuclear weapons policy was possible, a group of Cold War-era nuclear experts met at a dinner sponsored by Dr. John Hamre, President of the Center for Strategic and International Studies. The two of us were present. We had both spent the 1980s deeply enmeshed in nuclear issues from the different perspectives of the Navy and the Air Force and of the Joint Staff and the White House. Like virtually everyone at that dinner, we shared the view that renewed thinking on nuclear issues was crucial.

As the discussion proceeded, all of us recognized the complete absence of new participants in the debate. There were infrequent meetings and seminars to discuss nuclear issues, but the participants were, almost to a person, the same people we would have encountered at similar gatherings in the mid-1980s. This is a concern for two reasons, one obvious and one slightly less so. The obvious concern is that the individuals with experience in developing and articulating nuclear policy will inevitably be passing from the scene over the coming years and will need to be replaced. Indeed, one of our good friends present at that first dinner, Leon Sloss, has since departed. His wisdom and experience was a national treasure we no longer can reach out to. The less obvious—but more pressing—concern is that those of us with long experience during the Cold War were accustomed to thinking of nuclear issues only in the context of large-scale exchanges with a single superpower adversary. No matter how flexible and agile we think our minds are, a lifetime of dealing with one particular view of the nuclear problem may not be the best preparation for the challenges posed by nuclear weapons in the 21st century.

The Project on Nuclear Issues (PONI) grew out of these twin insights. It was designed to encourage younger scholars, practitioners and scientists to think deeply and carefully about the challenges of what Keith Payne has called “the second nuclear age.” This book is the result of some of their thinking. The essays it contains are important for at least three reasons. First, they are important in themselves. Each deals with a significant issue where clear thinking backed by sound analysis is crucial. Second, they are important because they illustrate that diversity of issues with which the United States must grapple in the coming years. Finally, they are important as an opportunity for new voices to enter the discussion of nuclear issues. These new voices, like those of the authors in this volume, will come from national laboratories, think tanks, the

academic community, the military, and elsewhere. Unburdened with the intellectual legacy of the Cold War, they will have a better chance of gaining the fresh insights we so desperately need.

The United States will face many challenges with regard to nuclear weapons in the coming decades. It will need to decide whether and how to modernize our aging nuclear weapons infrastructure. It will need to decide whether to embrace the opportunities posed by the Reliable Replacement Warhead. It will need to decide on what additional reductions in the stockpile are appropriate and how those reductions relate to the growing capability of a responsive infrastructure. It will need to decide the appropriate relationship between offense and defense and between nuclear and non-nuclear or non-kinetic capabilities. It will need to improve the linkage between our nuclear weapons policy and our nonproliferation policy. It will need to face the continuing challenge of preventing nuclear terrorism. It will need to address deterrence in a 21<sup>st</sup> century context.

All of these issues are important. Arguably, however, the most important question facing us is gaining and articulating a clearer understanding of the fundamental purpose or purposes of nuclear weapons in the 21<sup>st</sup> century. The essays in this volume, by helping to illuminate various aspects of the nuclear challenges we face, will help the United States as it gropes toward a consensus on these fundamental issues.

War and conflict have been with us as long as the human race has existed. Plato said that only the dead have seen the end of war. Similarly, however much we may wish it were otherwise, nuclear weapons and the challenges they pose will be with us for the foreseeable future. Failing to meet these challenges could have devastating consequences for the United States. Sound and diverse thinking on these issues will be crucial. This book is a good step in that direction.