

UNCLASSIFIED

409

The logo for the Defense Technical Information Center (DTIC) is displayed in a large, stylized, outlined font. The letters 'D', 'T', and 'I' are connected, and the 'C' is a large circle. The logo is set against a background of diagonal hatching lines.

BA5.

Technical Report

distributed by



Defense Technical Information Center
DEFENSE LOGISTICS AGENCY

Cameron Station • Alexandria, Virginia 22304-6145

UNCLASSIFIED

Sep 1982

NOTICE

We are pleased to supply this document in response to your request.

The acquisition of technical reports, notes, memorandums, etc., is an active, ongoing program at the Defense Technical Information Center (DTIC) that depends, in part, on the efforts and interests of users and contributors.

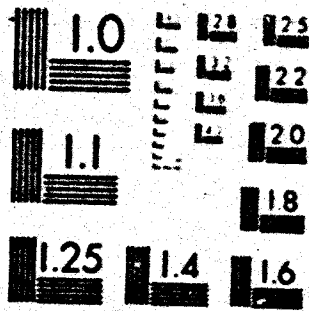
Therefore, if you know of the existence of any significant reports, etc., that are not in the DTIC collection, we would appreciate receiving copies or information related to their sources and availability.

The appropriate regulations are Department of Defense Directive 3200.12, DoD Scientific and Technical Information Program; Department of Defense Directive 5200.20, Distribution Statements on Technical Documents (amended by Secretary of Defense Memorandum, 18 Oct 1983, subject: Control of Unclassified Technology with Military Application); Military Standard (MIL-STD) 847-B, Format Requirements for Scientific and Technical Reports Prepared by or for the Department of Defense; Department of Defense 5200.1R, Information Security Program Regulation.

Our Acquisition Section, DTIC-FDAB, will assist in resolving any questions you may have. Telephone numbers of that office are: (202)274-6847, 274-6874 or Autovon 284-6847, 284-6874.

FEBRUARY 1984

★U.S.GPO:1986-0-491-133/52585



MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS-1963-A

2

AD A I 25683

FREEZE: THE LITERATURE OF THE NUCLEAR WEAPONS DEBATE

Peter deLeon

DTIC
SELECTE
MAR 15 1983
S D
H

September 1982

DTIC FILE COPY

DEPARTMENT OF STATE
Approved for public release

P-6803

83 03 14 183

The Rand Paper Series

Papers are issued by The Rand Corporation as a service to its professional staff. Their purpose is to facilitate the exchange of ideas among those who share the author's research interests; Papers are not reports prepared in fulfillment of Rand's contracts or grants. Views expressed in a Paper are the author's own, and are not necessarily shared by Rand or its research sponsors.

**The Rand Corporation
Santa Monica, California 90406**

FREEZE: THE LITERATURE OF THE NUCLEAR WEAPONS DEBATE*

Peter deLeon

Political Science Department
The Rand Corporation
Santa Monica, Calif.

Arthur M. Katz. Life After Nuclear War. Cambridge, Mass.:
Ballinger Press, 1982. 465 pp. \$14.95 (pb).

Edward M. Kennedy and Mark O. Hatfield. Freeze! How You Can
Help Prevent Nuclear War. New York: Bantam Books, 1982.
267 pp. \$3.50

Roger Noland (for Ground Zero). Nuclear War: What's In It for
You? New York: Pocket Books, 1982. 272 pp. \$2.95.

Jonathan Schell. The Fate of the Earth. New York: Alfred
P. Knopf, 1982. 244 pp. \$11.95.

Solly Zuckerman. Nuclear Illusion and Reality. New York:
Viking Press, 1982. 154 pp. \$10.95.

INTRODUCTION

Within the past year, a major political movement calling for a freeze on the development and deployment of nuclear weapons has emerged in the United States (Miller, 1982). It has manifested itself in Congressional resolutions, state ballot propositions, and numerous municipal initiatives (especially in the Northeast). Surveys report a three-to-one backing for a nuclear freeze between the United States and the Soviet Union (Sussman and Kaiser, 1982). The general movement--lacking in common definitions and (possibly) purpose--is quite remarkable in that it seems to have sprung out of wholecloth, yet found a fertile, if amorphous, constituency. (Butterfield, 1982, attempts to document its genesis and growth.)

* Prepared for The Journal of Conflict Resolution. I am appreciative of the insightful comments by Rand colleagues Morlie Graubard and David Stein; neither, of course, is responsible for my opinions or their expression.

DTIC
COPY
UNRESTRICTED
2

✓
Per
etc on
file

y Codes
22/52

A

This review does not attempt to chronicle the present movement. Such a narrative would be premature, for the drama surely has not played itself out. Nor will the review weigh these books' quantitative arguments. To do so would imply that we have some confidence in what are, at base, highly variable and uncertain estimates. More to the point, a numbers dispute would distract one from the more critical features of these books. Rather, this review examines some of the literature which has, by and large, informed the anti-nuclear movement and inquire as to the intelligence of the debate. The books listed above are certainly not the "best" books on the lethal questions of nuclear war, but they are the most prominent and--for better or worse--the books which have generated and structured much of the emerging debate. The issue at hand, then, is to ask what are their strengths and weaknesses (both individually and collectively), what might be their effect on Administration policy, and, in general, are they generating more heat than light?

A REVIEW

For almost as long as there have been nuclear weapons, their study has been limited to "experts," either within the military or a small civilian cadre. This small circle was initially restricted by classification requirements. These have become much less of an obstacle to understanding nuclear doctrine than the technical paraphernalia, the highly speculative nature of the logic and evidence on nuclear warfare and strategy, and a general reluctance to "think about the unthinkable." There is now ample information in the public domain which illuminates the effects of nuclear weapons and the capabilities of their delivery

systems. The nuclear strategy debate is no longer arcane; noted commentators in popular magazines, and communications media regularly debate the whys, hows, and wisdoms of counterforce vs. countervalue exchanges; the literate public is increasingly asked to confront nuclear weapons and their potential use. This latter condition is magnified by Reagan Administration programs to expand the American atomic arsenal, negotiate strategic arms control agreements with the Soviet Union, and emphasize local civil defense programs (see Reed, 1982; Kendall, 1982). Thus, there are presently both seed and soil for a national debate on nuclear doctrine and weaponry.

The anti-nuclear movement is, of course, a political movement. None of the books listed above is more political than the Kennedy-Hatfield volume. Its last 100 pages list people who endorse the Kennedy-Hatfield resolution (classified as foreign policy/defense experts, religious leaders, and others [sic.]) and where an individual could write to volunteer his or her services if so moved. Sadly, the text of the book is much less informative; it is patent advocacy, not analysis, meant to stampede rather than inform in any meaningful manner: Table 1 lists over 200 major American cities and what their mortality/injury rates would be in the event of a 50 kiloton, one megaton, or 20 megaton nuclear explosion; should the point be too subtle, another couple hundred smaller urban areas and their estimated casualties are listed in Table 2; phrases like "vaporized human beings" litter the text. Although one can readily admit that there is nothing subtle about a nuclear exchange, the arguments underlying nuclear arsenals and doctrines are much more complex than the Kennedy-Hatfield polemic would have one believe. Even the Kennedy-Hatfield Senate

resolution reflects the complexities of the nuclear weapons condition more accurately than the book when it ambiguously proposes:

1. As an immediate strategic arms control objective, the United States and the Soviet Union should:
 - a. Pursue a complete halt to the nuclear arms race;
 - b. Decide when and how to achieve a mutual and verifiable freeze on the testing, production, and future deployment of nuclear warheads, missiles, and other delivery systems; and give special attention to destabilizing weapons whose deployment would make such a freeze more difficult to achieve.
2. Proceeding from this freeze, the United States and the Soviet Union should pursue major, mutual, and verifiable reductions in nuclear warheads, missiles, and other delivery systems, through annual percentages or equally effective means, in a manner that enhances stability. (Kennedy and Hatfield, 1982:169-170)

Many with bonafide arms control credentials, such as Representative Les Aspin who termed the resolution "weasel-worded" (Miller, 1982), find it difficult to support such an ill-defined, clearly politically-inspired and perhaps counterproductive resolution. One might hope for a more balanced, factual assessment in this emotionally-charged arena but Freeze obviously has no such pretensions.

The banality of the Kennedy-Hatfield book is particularly apparent after reading Nuclear War: What's In It for You, largely written by Roger Holander, a former member of the National Security Council, for the Ground Zero organization. Although occasionally lapsing into the unforgiveably cute (e.g., chapter titles like "From Toyland to Never-Never Land" and referring to a Soviet military officer as "Ivan the Targeteer"), the book presents in a relatively thoughtful manner the history, current condition, and possible future consequences of the nuclear arms race. It vividly depicts the destructive power of nuclear weapons (by now, a pro forma ritual but one which surely should not be

neglected), the new technologies, alliance problems, nuclear doctrinal inconsistencies, and problems in dealing with the Soviets. Molander does not delve into all the intricacies and complexities of these subjects; that is not his scope or purpose. But he does, at a minimum, attempt to portray how the existing relationships make the sudden, cold-turkey cessation of the nuclear arms race a much more unlikely event than Kennedy-Hatfield would have one believe.

One should not underestimate Molander's purpose: through a series of plausible scenarios and application of "limited war" conditions, the book argues that nuclear war is not impossible--although surely unintended--and that citizen action is one way to lower the probability. It provides sufficient information to inform and perhaps even motivate the interested reader, certainly enough so he or she can pose knowledgeable questions and recognize straightforward answers. The book is surely slanted but at least the reader has some notion that the nuclear competition is multifaceted, that the nuclear doctrine might be deadly but it is discernible, and that, with application, the concerned citizen can possibly have some effect on the nation's nuclear arms policy. These goals are somewhat modest and, by and large, well-articulated by Molander. The reader of this journal would certainly have preferred to see a complete, thorough, and balanced assessment of these issues, but that is not his purpose; one should be careful not to force one's preferences upon an author, to have him or her write the book that the reviewer wants to see written.

Katz's Life After Nuclear War in many ways is similar to Freeze and Nuclear War. All reproduce maps showing how various levels of nuclear explosives would decimate American cities and suburbs. But Katz's book

goes well beyond the casualty figures and examines many of the post-attack problems that might occur. In this, he performs a valuable service, for most analyses stop with a simple, horrific body count. Katz asks such critical questions as: what sort of economic system would prevail, particularly once one moves beyond a local environment? What about problems of political legitimacy? Could the education system recover to the benefit of future generations? Would regional and ethnic rivalries erupt? And what, in general, is the durability of existing political structures after the terrible trauma of nuclear war? Katz claims, and one is hard pressed to disagree, that current nuclear conflict contingencies are predominantly concerned with war prevention and, lately, war fighting; there is some thought to civil defense but not as a central theme in nuclear strategy. Katz asserts that contemporary thinking has failed to appreciate "a sense of the uncertainties and ambiguities associated with effectively using the surviving physical and human resources, reestablishing social bonds, and promoting political trust." (Katz, 1982:241)

Although his evidence is admittedly (and gratefully) problematic, Katz does raise several germane points that are worth closer examination. These are, however, ultimately second-order inquiries to more central questions.[1] He assumes that somehow a nuclear exchange can be terminated at some level where a functioning, industrial society still exists, or can be put into order with a manageable amount of inconvenience or jury-rigging. Katz fails to address how the war ends at this limited scale of destruction. His concern is how one mails a letter to Aunt Martha given that the mailbox has been incandescently

[1] Katz' book inevitably brings to mind Tom Lehrer's ballad to nuclear warfare, "We'll All Go Together When We go."

fused shut; he usefully asks if some sort of mail distribution system can be patched together that can locate Aunt Martha without asking if she is still alive. In short, Katz raises a number of important post-war questions dealing with the reconstruction of the shattered political, economical, agricultural, medical and educational systems and services. In this sense, he performs a genuine service in broadening the terms of the debate but, to do so, he neglects the more important question of how one arrives at the post nuclear exchange world.

Sir Solly Zuckerman's Nuclear Illusion and Reality is, overall, the best balanced of the books reviewed here. Sir Solly has observed the nuclear arms race from an intimate position for virtually as long as it has been run; such involvements prevent him from straying too far amiss. He convincingly argues the danger of assuming that limited (or theater) nuclear exchanges can be (or remain) limited, that any use of nuclear weapons would rapidly escalate into a full-scale barrage. He therefore urges that NATO conventional forces be built up to obviate any need to exercise the nuclear option, a position increasingly voiced under the "no first use" doctrine (the most visible example being Bundy et al., 1982). But even Zuckerman can be somewhat simplistic, as when he ascribes the main impetus of the arms race to the scientists and engineers who design and manufacture nuclear weapons and their delivery systems. Surely our understanding of the arms competition has moved beyond the "military-industrial complex" explanation. Still, this is a thoughtful, concise book worth an evening's read.

Lastly, one turns to Jonathan Schell's The Fate of the Earth, probably the most pretentious (witness its title) and flawed of the books reviewed. But it is also the most important, for in many ways, it

has served as the normative catalyst of the anti-nuclear movement. His examples of a the-monuclear holocaust are no more graphic--although better written--than other authors, nor is his litany of secondary effects (e.g., the effects on the food chain and the possible depletion of the earth's ozone layer) any more convincing. But these are just preliminary groundwork to Schell's main thesis--that mankind's major obligation is to its future and the "fact" that nuclear war literally destroys whatever future may exist. No cause, he argues, can relieve us of that burden. Some (e.g., Kinsley, 1982) have claimed that Schell has no right to impose his set of values upon the body politic. Perhaps, but few should contest Schell's sincerity in explicitly raising the profoundly moral issues that have too long been neglected in the ethically sterile discussions which have characterized mainstream nuclear doctrine. Whether Schell is right or wrong in assuming his high moral ground is the normative prerogative and responsibility of the individual reader; at the very worst, however, Schell forces the reader to confront these issues directly. And this, in spite of his grandiose style of writing, is why this book warrants careful attention.

Schell probably does not expect to have his thesis accepted uncritically; he admits his data are open to wide variation and interpretation. But, given his "evidence" and logic, he has the courage of his conviction to realize where his positions will take him. He admits that the nuclear weapons demon cannot be put back in the bottle, that even with a nuclear disarmament treaty, the extant scientific knowledge would always allow a nation to reconstruct this ultimate weapon. Similarly, to rely on conventional weapons to preserve national sovereignty is to invite a nation to cheat, to build clandestine nuclear

weapons and thus begin the nuclear arms race towards extinction once again. The fundamental culprit to Schell's way of thinking is not Zuckerman's dedicated nuclear engineer nor Ivan the Targeteer, but the nation-state itself. He openly acknowledges that "the task we face is to find a means of political action that will permit human beings to pursue any end for the rest of time. We are asked to replace the mechanism by which the political decisions, whatever they may be, are reached. In sum, the task is nothing less than to reinvent politics" (p. 226). Schell's proposal, past an immediate nuclear freeze, is some form of functioning world government, that is, the abandonment of national sovereignty and perhaps individual liberties as a means of retreating from the nuclear precipice, for any life, he avers, is better than no life. Schell does not actually say "better red than dead" but he surely could not disavow such a position. Again, whether he is right or wrong is a matter of individual choice, but at least he sets the normative cards on the table and forces one to draw or stand pat.

FOR BETTER OR WORSE

What might we conclude about these books taken as a corpus? The judgment, of course, must be mixed. On the negative side, they all make the same obviously unarguable point--that nuclear war would be a monumental tragedy nobody desires--that few this side of sanity would doubt. Furthermore, they draw from the same source documents, such as the Office of Technology Assessment's study of nuclear war (OTA, 1979). Most honestly admit their data are highly speculative (Kennedy-Hatfield being the least frank in this regard) and their estimates are subject to great uncertainty, yet they choose to stress the pessimistic side of the distribution. Molander and Zuckerman present more thoughtful

assessments than Kennedy-Hatfield and Schell. It should come as no surprise that the diligent reader could find more informative books on nuclear strategy, weapons, and their cumulative effects. This is perfectly understandable given that the shared objective of these books is to move people to political action, a movement which is probably better generated by the somewhat simplified "understanding" of the "facts" of the nuclear arms race.

On the positive side, the reviewed literature serves a worthwhile function by bringing a previously isolated but critically important drama onto center stage. Each book has distinct policy orientations, although addressing different levels (e.g., Kennedy-Hatfield call for immediate political action, Katz poses analytic issues, and Schell is much more philosophical). Taken as a whole, these books provide sufficient information and impetus to the reader so that he or she can intelligently participate in the political exchange which will determine the nuclear stance of the United States. The physical destruction of a nuclear exchange and its psychological and social effects are certainly made apparent. Katz is particularly useful in raising some heretofore neglected problems of a post nuclear-exchange society. And Schell, claiming that psychological barriers have prevented us from confronting the consequences of the nuclear catastrophe in the past, forces one to address the ethical underpinnings of a world with nuclear warheads.

There is no reason in a democratic society why nuclear weapons debates and decisions should be left to the anointed members of the nuclear priesthood. To the extent that these books (and others like them) open up these issues--perhaps even make nuclear policymakers and strategists be more articulate--they serve a valuable purpose. To this

reviewer's mind, the achievement of this purpose--an attainment I would not grant at this point in the debate or time--would outweigh the negative assessments posed above. One can legitimately worry that the present level of the debate does not adequately reflect the inherent complexities nor how they are translated into concrete policies (e.g., how does one coordinate U.S. nuclear reductions with European sensitivities, or how does one compare nuclear equivalents) that these books pretend.

Public debate is, of course, a two-edged sword; passions can inflame as well as subdue; they can move the Bulletin of the Atomic Scientist's doomsday hands frighteningly forward as well as relievedly back. This is the price of a representative democracy. That these books provide some sort of evidential basis for the debate is to their credit and our collective benefit. One might wish for a more balanced, comprehensive approach but that shortcoming provides those more knowledgeable in this area with an undeniable challenge and opportunity they would be sadly remiss to neglect. For the truth of the matter is that the nuclear balance can determine the fate of the earth, a responsibility far too global to be monopolized by any clique, no matter how well intended. Thus, if these books can engage and perhaps inform the vox populi, then those who protest that they give an inaccurate picture of nuclear "realities" should be grateful that they have sparked an interest in the subject and strive to make that picture more accurate.

REFERENCES

- BUNDY, McGeorge, et al. 1982. "Nuclear Weapons and the Atlantic Alliance." Foreign Affairs. Vol. 60, No. 4 (Spring). Pp. 738-768.
- BUTTERFIELD, Fox. 1982. "Anatomy of a the Nuclear Protest." New York Times Magazine. July 11. Pp. 14, 17, 32, 34, 38, 39.
- KENDALL, John. 1982. "Opposition to Nuclear Evacuation Grows." Los Angeles Times. August 9, Sec. 1, Pp. 2, 3, 29.
- KINSLEY, Michael. 1982. "Nuclear Holocaust in Perspective." Harper's Magazine. May. Pp. 8-12.
- MILLER, Judith. 1982. "Effort to 'Freeze' Nuclear Arsenals Spreads in U.S." New York Times. March 15. P. B-12.
- OFFICE OF TECHNOLOGY ASSESSMENT (OTA). 1979. The Effects of Nuclear War. Washington, D.C.: Government Printing Office. May.
- REED, Michael. 1982. "Coast-to-Coast Protest Greets Reagan's Civil Defense Buildup." National Journal. Vol. 14, No. 13. March 17. Pp. 554-556.
- SUSSMAN, Barry, and KAISER, Robert G. 1982. "Survey Finds 3-to-1 Backing for A-Freeze." Washington Post. April 29. P. 1.

END

DATE
FILMED

4 - 83

DTIC