

*How Much is Enough? How Mad is MAD? (1974)*

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From Fred Warner Neal and Mary Kersey Harvey, eds., *Pacem in Terris III*, Vol. 2: *The Military Dimensions of Foreign Policy*, Washington, DC: Center for the Study of Democratic Institutions, pp. 37-43. Copyright © 1974 Fund for the Republic. Reproduced with permission of NPQ/Center for the Study of Democratic Institutions. Wohlstetter's remarks below respond to two addresses, Clark Clifford's "The National Interest and Military Power," and Herbert York's "Nuclear Deterrence: How to Reduce the Overkill."

On the important subject of deterrence, the two main speakers agree on relying on the "assured nuclear destruction" of civilians. I feel called upon to introduce a note of discord and to ask some questions. My questions center mainly on Herbert York's praiseworthy effort to make a little saner what he himself has called an essentially mad strategic doctrine, deterrence by threatening the mass destruction of civilian populations. However, in considering whether alternative forms of deterrence entail a strategic arms spiral, I shall question the received notions reflected by Mr. Clifford as well as by Mr. York, as to the nature and actual history of strategic arms competition.

The received strategic doctrine in the foreign policy establishments today calls not only for keeping civilians defenseless on both sides, but for deliberately aiming whatever strategic forces are available exclusively to kill the adversary's civilians; for avoiding military targets; and for shunning as much as possible any development of discriminateness, of an ability to destroy military targets without destroying civilians *en masse*. This doctrine of "mutual assured destruction," identified by its acronym "MAD," has never been officially accepted as the policy for using nuclear force by either the Soviet or the American government. Nor do the forces of either side conform to such a policy. The Soviet Union, for example, continues to spend roughly as much on defense of its civilian population as the United States spends on strategic offense and defense. Official statements on both sides insist that, whatever the capabilities for reciprocal mass civilian destruction, in the event of a nuclear war the governments

would use their forces against a variety of military targets. As Mr. York has pointed out, accuracies, and therefore the ability to reduce unintended destruction, have improved dramatically, and are likely to continue improving on both sides.

Some systems analysts gave currency to the ghastly and most unassuring phrase "mutual assured destruction." They stressed, however, that this was an accounting device, measuring only how the forces could be used, rather than a reflection of the policy for their actual use in the event of war. The relevance and meaning of such macabre accounting are dubious. In any case, much is wrong with both the doctrines and the forces of the superpowers.

However, a responsible policy would move away from, rather than toward, the targeting of civilians. The diverse critics of MAD range from the respected Princeton theologian and student of the ethics of war, Paul Ramsey, to the current director of the Arms Control and Disarmament Agency, Fred Iklé, to Michael May, who, like Herbert York, formerly directed the Lawrence Livermore Radiation Laboratory. Mr. York accepts one of their most powerful objections, namely that even if MAD were a persuasive deterrent to a thoroughly rational decision-maker, such rationality is hardly universal. Even if no one "deliberately takes the responsibility for the appalling destruction and sorrow that war would bring in its train," as the *Pacem in Terris* Encyclical said, "the conflagration may be set off by some uncontrollable and unexpected chance." In that event, to execute the doctrine would mean an unprecedented mass slaughter of unoffending civilians.

Mr. York therefore proposes to limit the damage that would be done in such a case by altering not the aiming points but the size of the force aimed, leaving essentially intact the MIRVed (to use the jargon) missile force, Poseidon and Minuteman III. For these remaining missiles he would limit the yield of each warhead, if I understand him, to twelve-and-a-half kilotons. I presume he would welcome, if not insist, on cutting the Soviet force to the same total of small warheads.

Now I want to stress that I am completely sympathetic with attempts to modify so harsh a doctrine, though I never supported it in the first place. I favor reducing the weight of the explosives that can be launched by strategic forces. I would like to see each side with the same total, and that total much lower than the present U.S. capacity.

However, one must question Mr. York's reduced force on the following grounds: first, if it is deliberately aimed at killing civilians, will the reduction in fact significantly limit the slaughter? Second, would the alternative of aiming such a reduced force at military targets provide a useful deterrent and yet destroy fewer bystanders? As for the first question, even if the twelve-and-a-half kiloton limit were monitorable, the successful launching of three-quarters of Minuteman III missiles, and less than half the Poseidon, when aimed solely to kill Russian civilians, would promptly destroy nearly 100 million. The delayed effects from fallout would be small only in comparison with this enormous immediate slaughter. In short, simply reducing the force, as he proposes, would not accomplish Mr. York's goal. Even more drastic cuts in the strategic force to a size that still remains reasonably secure against attack in the face of uncertainties or unmonitorable increases, will not make it small enough to keep the slaughter less than catastrophic, so long as the force is aimed exclusively at defenseless population centers.

A nuclear war will in any case be terrible, but if deterrence fails, the alternative to aiming at civilians is to aim at military targets, to limit these targets in number, to choose them in part precisely for their geographical separation from civilian population centers so as to keep the destruction of civilians as low as one can; to select weapons and yields accuracies with that purpose in mind; and, specifically, to reduce fallout by using weapons with a lower fission fraction and by avoiding surface bursts. In fact, surface bursts in such military attacks are a doubly bad idea: they not only increase the *unintended* harm done by fallout; they also reduce the intended harm to military structures, both hard and soft, from blast overpressure—the most predictable weapons effect, and therefore the one that would be counted on by a conservative military planner. Further, the alternative is to maintain command and control of nuclear weapons throughout the conflict, to avoid destroying adversary command centers, and to try to bring the war to an end as rapidly as one can, with as much as possible left intact of civilian society.

This suggests an answer to the second question raised by Mr. York's proposal. There are tens of thousands of possible military targets, just as there are at least equal numbers of villages and farms containing civilians that could be attacked. But there is no legitimate military need to attack every single military target, not to say every civilian target. The force that Mr. York proposes,

given the accuracies that he himself has predicted, could destroy any of several selected military systems, either long-range or general-purpose forces and their means of support. The loss of such massive and costly systems, especially along tensely disputed borders, would be felt as an enormous disaster by a given political-military leadership, leaving it and the nation naked to its enemies. Why wouldn't the prospect of such a loss be an excellent deterrent? Must we aim to kill noncombatants? I favor cutting the force to an agreed lower total, though I would specify the cuts differently. For reducing mass destruction of civilians, however, what is essential is how the force would be aimed and used.

Herbert York is concerned that if we aim at anything other than population centers this would mean more and larger weapons, and so more unintended damage to civilians than would be done deliberately by use of his proposed force. On the face of it, given the concentration of populations and their vulnerability to even a few weapons, this seems implausible. With the accuracies Mr. York and others expect, fewer and smaller weapons than those deployed in the present forces, which may be agreed to under SALT II, would do very well for attacking military targets. For one thing, SALT I already limits numbers, and SALT II can limit them further.

The hypothetical "spiral" models, popular in the academy, seem to me quite remote from the realities. For years claims have been repeated, without supporting evidence, that there has been a spiral increase in strategic budgets, in megatonnage, or in the area that could be destroyed by strategic weapons. And it has been argued that this spiral would continue upward unless civilians become the exclusive targets. These claims are simply inconsistent with actual U.S. history.

The United States has always aimed its nuclear arsenal at military targets, and this has not meant an exponential increase in destructive power in the past. In constant dollars, strategic budgets in the mid-1950s were two-and-a-half times what they are now. Strategic defense vehicles, which current arms race theory supposes to be particularly destabilizing, peaked at seven times what they are now. Offensive vehicles, as Messrs. Clifford and York observe, have been roughly constant.

Moreover, contrary to the stereotype, not only has strategic megatonnage declined drastically, but the geographical area that could be destroyed by the many smaller warheads has been declining for many years, and in 1972 was the same as in 1956. We

may reach agreements, and I hope we do, on still lower strategic budgets. But can we justify aiming our nuclear weapons at civilians simply because they're easy to reach and cheap to kill? Because, so to speak, these noncombatant populations are available in the large, economy size? We should question not only the familiar arguments about budget instabilities occasioned by a supposed arms race, but also the argument that strategic forces aimed exclusively at civilians can provide a stable deterrent ("even one bomb aimed at one city," etc.), while a force aimed at military targets cannot.

To deter, one needs to possess not only a capability to destroy something that's important to an adversary, but also an ability to convince him that the capability would actually be used in response to the action one wants to deter. However, if the action to be deterred left our own civilian society essentially intact—as it would if the action were, for example, a nuclear attack directed at an ally in Europe or at Japan—would our promise to respond be convincing if our response would lead not only to the destruction of an adversary's civilians but also of our own? One of the many problems with MAD, when used as a threat, is that the destruction it promises would, in fact, be mutual and is therefore quite obviously unassured. On the other hand, a policy of attacking military targets that minimizes unintended civilian fatalities would offer incentives for an adversary to reciprocate under similar restraints by attacking military targets, thereby making unnecessary both mass homicide and mass suicide.

In any case, military attacks, even with the proposed reduced force, could scarcely remove the possibility of the urban destruction to which proponents of MAD cling. With Mr. York's proposed force of Minuteman III and Poseidon (assuming ten re-entry vehicles per Poseidon, rather than fourteen), there would be 6,200 strategic warheads on each side. No one could dream of successfully destroying 6,199; for whatever that is worth, the possibility of one bomb on one city would always remain. A responsible deterrent calls for a less reckless, less homicidal, and less suicidal response.

One final point concerns *détente*. The process of constructing common interests and warranted mutual trust among sovereign nations with a long history of divergence is likely to be lengthy and painful. The *Pacem in Terris* Encyclical had something to say about the disabilities of threats and fears as a way of moving men toward common goals. In the long run, mutual threats to kill

innocent populations seem an especially poor way of building a community of interests between the Soviet Union and the United States.