

This grim, strange, often misunderstood concept has hovered over defense policy for more than 30 years.

In the Shadow of **MAD**

By Peter Grier

DONALD G. Brennan of the Hudson Institute in New York had an intense dislike for “Assured Destruction,” the novel nuclear posture promulgated in the 1960s by Robert S. McNamara, Defense Secretary in the Kennedy Administration. And in 1969, Brennan devised a clever way to dramatize his view.

The destruction in question, Brennan noted in a *New York Times* article, would be mutual. By that, he meant neither the US nor the Soviet Union would survive an all-out atomic attack. Brennan then prefaced “Assured Destruction” with “Mutual” and renamed the strategy with an irresistible acronym—MAD.

The idea that the US and the Soviet Union should hold each other’s population hostage was indeed a mad one, insisted Brennan in writings and public appearances. Technology and politics might make MAD inevitable, for a time, he said, but the US should not be eager to perpetuate that con-

dition. Instead, US policy-makers should be looking for ways to escape it.

As he argued, “We should not deliberately create a system in which millions of innocent civilians would, by intention, be exterminated in a failure of the system.”

The man who popularized “MAD” did not live to see the end of the Cold War. However, his visceral reaction against the implications of Mutual Assured Destruction has been repeated and amplified by many others since. The Air Force never fully accepted it, and in the 1980s, denunciation of MAD also became a staple of the anti-nuclear and disarmament movements.

More recently, proponents of missile defense have insisted that defensive technologies might finally begin the process of consigning MAD to the ash heap of history. Thus President George W. Bush said in May that deployment of even limited defenses could ensure that deterrence would no longer be based solely on

the threat of all-out nuclear retaliation.

“Grim Premise”

“We must seek security based on more than the grim premise that we can destroy those who seek to destroy us,” said Bush in a National Defense University speech promoting his missile defense program.

Even today, however, much discussion of MAD misses one central point: It is not the prime nuclear doctrine of the United States. For more than 30 years, increases in the size, accuracy, and sophistication of the US nuclear arsenal have reduced Mutual Assured Destruction to the status of one among many competing national strategic options.

Perhaps any exchange of warheads between nuclear powers would escalate, inevitably, to total war and obliteration of both nations. That is what McNamara fervently believes to this day.

However, the US military believes in preparing other, more flexible, strategic plans. Anything less would be an abdication of duty, says Gen. Russell E. Dougherty, a former commander in chief of the Air Force’s Strategic Air Command.

“I don’t think Mutual Assured Destruction was ever a military-espoused doctrine,” says Dougherty.

From a force planner point of view, MAD is a minimalist approach. It requires only that the American nuclear arsenal have enough warheads after any surprise first strike to destroy any opponent’s population centers and civilian industry.

The Air Force, by contrast, favors a larger and more complicated force structure capable of riding out a first strike and then retaliating against elusive, hardened military targets.

“Our philosophy has always been counterforce,” says Dougherty. “Force is what hurts us. Find his force, and dis-enable it or denude it.”

Moreover, MAD is a crude and reflexive revenge strategy, sufficient to punish an enemy but only after he has destroyed one’s own society. It provides no tools for limiting the amount of damage an enemy could inflict.

A brief history of MAD may help explain the manner in which it is misused in today’s national security debates.

Its roots are in the early 1960s.

McNamara had just taken the helm at the Pentagon, and he was not pleased at the state of US strategic thinking. The official policy of the US at the time was “massive retaliation.” By that, officials meant that the US would react massively, with all the power in its atomic arsenal, to unspecified acts of Soviet aggression. A 1961 military review initiated by President Kennedy concluded that this position was neither credible nor morally satisfying.

The US should have nuclear choices other than “inglorious retreat or unlimited retaliation,” as JFK put it.

“No Cities”

McNamara and his staff decided to take what had been intended as spasm nuclear response and break it up into a variety of attack options. A basic principle of the new thinking was that targeteers should avoid Soviet cities, at least in the first stages of any nuclear war. Enemy military forces were to be the primary targets.

Administration officials hoped, among other things, that this “no cities” approach would make Soviet leaders believe that any conventional attack on Western Europe might indeed trigger US nuclear retaliation. In simplistic terms, the point was to make a prospective nuclear exchange seem less like Armageddon and more like World War II, refought with more powerful weapons.

“General nuclear war should be approached in much the same way that more conventional military operations have been regarded in the past,” said McNamara in a widely noted speech in Ann Arbor, Mich., in June 1962.

“No cities” was, in essence, an early form of what would later come to be known as the counterforce option, useful for the demanding task of damage limitation.

However, the Kennedy Administration quickly concluded that this was untenable as a policy. For one thing, rhetoric such as McNamara’s Ann Arbor speech frightened the public. Talk of limiting nuclear war and fighting it in a manner similar to conventional battles made it seem only too likely to occur.

Perhaps more crucially, it quickly became apparent that production and maintenance of the nuclear forces necessary for a “no cities” posture

would be a very expensive and extremely contentious process.

In the wake of the Ann Arbor speech, SAC leaders asked the government to provide some 10,000 Minuteman ICBMs, noted William Kaufmann, a top McNamara aide who later became an MIT professor, in a 1996 interview. They wanted more bombers as well.

“And one of the questions McNamara kept asking me was, you know, What’s the ceiling on this thing?” said Kaufmann.

So McNamara and his staff made some arbitrary assumptions in an effort to answer the question of how much nuclear force is necessary. They determined that, for national security purposes, the US needed to be able to ride out a surprise Soviet nuclear first strike and retain enough weapons to destroy 50 percent of the USSR’s industrial capacity and 20 to 25 percent of its population, in retaliation. It was, in effect, a partial reincarnation of Massive Retaliation—that is, a crude strategy of “city-busting” or “countervalue” in strategic terms.

This new policy—called “Assured Destruction”—brought a dramatic lessening in the force requirement. It is far easier to target and destroy cities and car factories than to eliminate hardened missile silos or mobile weapons.

The new doctrine, thus, required a much smaller arsenal than the “no cities” approach. McNamara’s staff figured it could back up the new strategy by outfitting each leg of the nation’s nuclear triad—bombers, land-based missiles, and sea-based missiles—with enough warheads to deliver the equivalent of 400 megatons.

“It was a device to try to fend off the Air Force, primarily,” said Kaufmann in 1996.

They thought the Assured Destruction plan would not only set budgetary limits for strategic forces but satisfy critics who said that a minimum number of weapons was all the US needed for deterrence, as opposed to the huge and complex arsenal needed for the more militarily ambitious “no cities” approach.

The “White Lie”

To some extent, however, the numbers attached to the Administration’s new doctrine were plucked from thin

Coming to Terms

This is an abridged version of "Definitions of Terms," a 1976 text given as a study aid to students at Air Command and Staff College. A preface said, "The following definitions of terms should help you in understanding the [nuclear] concepts of the 1960s. Many of the terms and beliefs ... are very much alive today." Definitions of some terms have changed since 1976.

■ **First Strike:** First offensive nuclear move of a war.

■ **Pre-emptive Strike:** A strike made in defense. If strategic or tactical warning should indicate to the US that an enemy was on the verge of launching a surprise first strike, the US could steal the initiative (pre-empt) by striking first. A planned surprise first strike is not a pre-emptive strike.

■ **Second Strike:** Strike in retaliation to a surprise enemy first strike.

■ **Second Strike Weapons:** Strategic offensive nuclear weapons which are made relatively invulnerable by means of dispersal, warning systems, mobility and concealment, and hardening (silos).

■ **First Strike Weapons:** Those "soft" strategic offensive nuclear weapons which cannot survive an enemy surprise first strike and can therefore only be used for a first strike. Any strategic offensive weapon can be used in a first strike; however, if an aggressor nation has a first strike strategy, he will not likely spend the resources to harden his offensive weapons to provide second strike invulnerability. Therefore, all such "soft" nuclear systems are considered First Strike Weapons.

■ **Second Strike Capability:** A strategic offensive nuclear force structure which can survive a large scale nuclear surprise first strike in sufficient strength to retaliate in whatever manner the current strategy requires.

■ **Assured Destruction (AD) Capability:** The capability of strategic offensive forces to destroy an aggressor nation as a viable society even after surviving a surprise first strike. This capability requires second strike weapons.

■ **First Strike Capability:** A far greater strategic nuclear offensive capability than either AD or Second Strike Capability. First Strike Capability requires sufficient forces to strike first and effectively disarm the enemy—destroying his second strike retaliatory forces—thus denying the enemy his AD capability. To be credible, such first strike weapons must be of sufficient number, variety, accuracy, and yield to dig out and destroy hardened and dispersed enemy second strike weapons.

■ **Damage Limiting (DL) Capability:** Capability of defensive and strategic offensive forces to limit the effectiveness of an enemy attack through a combination of both active (warning, interceptors, SAMs, ABM, CF targeted ICBM/SLBMs, etc.) and passive (civil defense, etc.) defensive measures. The objective of such a capability is to preserve the greatest possible number of population, forces, and resources in the event of a surprise enemy First Strike. Do not confuse DL capability with DL strategy. (See p. 84.)

■ **Targeting Doctrine:** The policy established for strategic nuclear planning which outlines the desired targets for strategic offensive nuclear weapons systems. It incorporates three other concepts (terms):

Counterforce (CF): The targeting of strategic offensive forces against the military and military support capabilities of a nation with an effort to spare enemy population and general industrial resources.

Countervalue (CV): The targeting of strategic offensive forces against the industrial and population centers of a potential enemy.

Collateral Damage: Unintentional but unavoidable damage to the population or industry of a nation which occurs due to the proximity of military (CF) targets struck under a CF targeting doctrine.

■ **Deterrence:** The process whereby a nation prevents a potential enemy from carrying out aggressive intent against the victim nation or its allies. Deterrence is accomplished by threat of force and depends on three critical elements to be effective:

1. The deterring nation must possess forces of sufficient strength, targeted so as to threaten potential enemy vulnerabilities—value targets.
2. The deterring nation must have the will to use such force if required.
3. The nation being deterred must be convinced that both of the first two conditions in fact exist.

air, not developed by extensive and rigorous analysis. As Kaufmann admitted, "Assured Destruction was what I tend to think of as a white lie."

The military in general and the Air Force in particular didn't embrace the doctrine with open arms. Far from it. American officers saw the new policy as a way to rationalize spending less than required to meet the nation's most important national security need.

Nor did strategic planners ever explicitly make preparations to carry out MAD's population-targeting aspect, according to Dougherty. "We never targeted cities," he says flatly.

Collateral damage from hitting military-related targets would indeed have resulted in tens of millions of Soviet civilian casualties. However, that was due at least in part to the technologies of the time. Missiles were far less accurate than they are today. To ensure target destruction, warheads had to be correspondingly more powerful.

Thus McNamara's Assured Destruction statistical goals "may have been the end result of what we were talking about, but we never went out to destroy [Soviet society]," says Dougherty.

One particular aspect of Assured Destruction lent itself to public criticism—its implied mutuality. If the US needed to be able to destroy the USSR as a society in the name of national security, would not the leaders of the USSR require the same thing, in mirror image?

McNamara's formulation thus postulated a geopolitical suicide pact. The arms race would remain stable and nuclear war unlikely in inverse proportion to the danger to which the American people were exposed.

The 1972 ABM Treaty closed off one theoretical avenue of escape. President Nixon agreed to the pact, in the end, because he was convinced of the argument that defensive technology of the time could quickly be overwhelmed by additional offensive forces.

But successive administrations continued to modify the nation's strategic doctrines in an effort to at least mitigate some of MAD's morally troubling aspects.

Nixon, in a 1970 address to Congress, put the problem plainly: "Should a President, in the event of a nuclear attack, be left with the

single option of ordering the mass destruction of enemy civilians, in the face of the certainty that it would be followed by the mass slaughter of Americans?”

As George W. Bush would do years later, Richard Nixon ordered a strategic review of the military upon entering office. Though completed with dispatch, its nuclear recommendations were not adopted until 1974, after Nixon had been re-elected.

Schlesinger's Options

The basic concept of MAD—that the US and USSR would remain mutually vulnerable—remained unchanged. However, then-Secretary of Defense James Schlesinger resurrected McNamara's original idea of greater flexibility in nuclear plans. He moved to a partial counterforce strategy that emphasized attacks on ICBM silos and other military targets, avoided initial strikes on population centers, and attempted to minimize collateral damage.

Schlesinger felt that McNamara had simply been so repulsed by the idea of nuclear war that he had neglected to think through US nuclear policies with precision. He wanted more options, a more credible strategy, and he later said, a different mental attitude.

A few years later, the Carter Administration took up Schlesinger's ideas and refined them. Harold Brown—the first scientist to ever become Secretary of Defense and arguably the most qualified person ever to hold the position—developed what he called a “countervailing strategy.” He and his staff were careful not to call it a “counterforce strategy,” which implies pre-emption. However, it was self-evidently a step toward the capability to destroy the enemy's forces and thereby reduce the amount of damage to one's own nation. It was officially adopted with Carter's approval of Presidential Directive 59 on July 25, 1980.

As described by Brown, this new approach involved targeting plans for selective nuclear responses. These responses, though large, would still leave some US weapons in reserve and would attack those things Soviet leaders appeared to hold most dear—political and military control of their society, military forces, and the industrial capability to wage war.

Brown did not rule out Assured



Retired Gen. Russell Dougherty, here as commander in chief of SAC greeting James Schlesinger at Offutt AFB, Neb., says that the military never “espoused” MAD. When Schlesinger became Defense Secretary, the military began work on a strategy with more options.

Destruction targeting on urban and industrial targets. He believed, “Such destruction must not be automatic, our only choice. ... Indeed, it is at least conceivable that the mission of Assured Destruction would not have to be executed at all in the event that deterrence failed.”

From the McNamara through Brown years, it was the growing number of US nuclear weapons, and their increased quality, that made possible the development of deterrence options other than pure MAD.

The increase in submarine-launched ballistic missiles, plus the refinement of multiple-warhead re-entry vehicles, allowed planners many more options when picking targets, according to Dougherty. Even less well-known is the fact that the rise in computing power through the 1970s and beyond allowed development of many more options in weapon applications.

“Early on,” says Dougherty, “we couldn't do limited options because we didn't have the capability, but the planning process refined itself and became far more effective in rapid order.”

Intelligence helped, too. As the years went by, the US ability to pinpoint and trace Soviet military targets underwent a vast improvement.

Of Plans and Prophecies

All of this enabled the US to develop capabilities to do less than the

ultimate, when it came to nuclear retaliation. The situation changed so much that, by 1985, John T. Correll, editor in chief of *Air Force Magazine*, could sum it up this way: “Too often, our strategy options are depicted as a choice of extremes: a perfect defensive shield that frees us from all fear of nuclear weapons, or else the all-or-nothing retaliatory doctrine known as Mutual Assured Destruction (MAD). These concepts represent only an ace and a deuce from the strategic deck. In between, a great many more realistic cards can be found.”

To some, such capability was pointless because the explosion of one warhead would be so horrific it would lead, inevitably, to an all-out exchange. However, if the capability didn't exist, that argument about escalation would be a self-fulfilling prophecy.

“If you don't plan for it, you can't do it,” says Dougherty. “You've got to be able to plan options, and that's what we did.”

In referring to the Russian and American capability for mutual destruction, George W. Bush seems to have implied that the strategic direction he wants the US and Russia to follow would render MAD, if not nuclear weapons, impotent and obsolete.

Maybe some day. However, in the short run, the limited missile de-

Deterrence in Three Packages

The text "Definitions of Terms" specifies three distinct national nuclear strategies.

Finite Deterrence (FD) Strategy: The proponents of this strategy believe that the enemy will behave rationally and that credible deterrence requires only that we maintain an Assured Destruction threat against his valued targets—in other words, we hold his cities and industry hostage. The only purpose of strategic forces would be to deter a major attack on the United States, its forces or allies, and the threat of an assured counter-city second strike capability. This strategy would provide a reasonable number of missiles, almost invulnerable to enemy attack, and targeted solely against Soviet industrial and population centers. If the Soviet Union did attack the US, all of these missiles would be launched by a simple go order at countervalue targets. The attack would be so punishing that the Soviet Union would see this as self-evident ahead of time and thus never attack in the first place. The remaining US crises would be handled by general-purpose forces in a conventional sense. One major drawback to this strategy is proliferation, as nations formerly under the US strategic umbrella would of necessity produce weapons of their own. This strategy would offer no protection to allies, thus losing credibility. It requires no military superiority; simple targeting; a second strike capability but nothing else; requires little or no defense; no control of escalation is offered; arms race possibly slowed down; and it is relatively cheap. The supporting force structure has little warfighting flexibility or capability.

Counterforce (CF) Strategy: This strategy is based on the premise that nuclear war can happen and an effort to "tame" it should be given primary consideration, plus an objective of a favorable outcome if deterrence (the primary objective) fails. Some critics claim that this strategy is "extreme" in the amount of forces required and the cost involved. The key to this strategy is that deterrence may in fact fail. Despite Assured Destruction, the enemy might not be totally rational and may elect to engage in a nuclear war. This being the case, a full strike capability to destroy enemy nuclear delivery systems prior to launch is needed. With this posture, a nation could target for counterforce. This would require both a secure first and second strike capability. Thus the offensive force would be complex along with the requirement for excellent re-

connaissance and command and control. To insure acceptable (meaning that at least you survive and can reconstitute) damage levels to the US, both active defense and civil defense roles would be high, coupled with a complete surveillance and warning system. With such a capability, deterrent postures would be high for the US and our allies. This also gives a high war-waging capability, maintains good control over escalation, medium-size general-purpose forces would be provided, giving good utility in crises. This strategy offers the widest range of military options, could provide for strategic superiority, limits damage, and boosts the deterrence posture both for US and Allies. Two of the most prominent disadvantages are: the extreme cost and it invites an arms race if you retain nuclear superiority.

Damage Limiting (DL) Strategy: This represents a wide range of force postures ranging from near-FD to near-CF. Such postures differ in degree and emphasis of the force components. Like the two extremes of CF and FD, DL depends on the foundation element of Assured Destruction but assumes that deterrence might fail, though unlikely. It most closely represents DOD view today. This strategy does give the US a minimal first strike capability, a strong second strike potential, and provides options other than all-out nuclear war. Because both countervalue and some counterforce targeting is involved, targeting becomes more complex than Finite Deterrence. A rather complex mixture of forces would be required. This strategy would require good reconnaissance and command and control but not as much as counterforce. This would offer a higher degree of deterrence to US and some to the allies. In order to give reasonable control of escalation and utility in crises, a medium-size general-purpose force would be required (however, a smaller general-purpose force than Finite Deterrence). The cost of this strategy would lie somewhere between Finite Deterrence and Counterforce. It seems to minimally satisfy all concerned. This strategy does not require, but may afford, military superiority; targeting is rather complex, adds a limited first strike (counterforce) capability, increases the offensive weapons allocated to urban/industrial (Assured Destruction with perhaps some "overkill"); affords some control of escalation, possibly could invite some sort of an arms race; and can be relatively expensive.

fenses envisioned by the Bush Administration would mark only a start toward the actual elimination of MAD as a distinct escalatory possibility.

Initial deployments of an American missile defense system would be aimed at stopping a few missiles lobbed at the US by a rogue state. In ongoing negotiations with Russian officials, the Bush team is attempting to convince Moscow that such defenses would not be intended to degrade its arsenal. In other words, both the US and Russia would retain

the capability to overwhelm defenses with thousands of warheads and wipe the other off the face of the Earth, if so inclined.

In short, limited defenses might be a first step away from the MAD dilemma, if they prove feasible. Eventually the arsenals of the US and Russia might be reduced to the point where neither would be able to threaten the other with societal destruction. To a specialist, this might be judged the end of MAD.

MAD's true burial would likely

require a change in the relationship between the US and Russia, one that would make the prospect of a nuclear weapons exchange no more likely than nuclear war between America and Britain. ■

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