

# Taming Shiva: Applying International Law to Nuclear Operations

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*I am become death, the destroyer of worlds.*

Scientist J. Robert Oppenheimer quoting from the Hindu text, the Baghavid-Gita, at the first atom bomb test in from the Hindu text, the 1945. /1/

## I. INTRODUCTION

Like the Hindu deity Shiva, a nuclear weapon has inherent duality: it can be a "destroyer," as was demonstrated at the end of World War II, or a "creator," as has been proven thereafter. /2/ Specifically, since the advent of these weapons in 1945, an era has been produced that is free of the kind of savage *global* conflicts that twice visited the world this century - conflicts whose monstrous cost totaled more than 87 million lives. /3/

Despite the relative peace of the nuclear-weapons' age, General George Lee Butler, the former Commander in Chief (CINCSTRAT) of United States Strategic Command (USSTRATCOM), declared in a December 1996 interview with the *Washington Post* that nuclear weapons were "morally indefensible. /4/ Although General Butler later incongruously maintained that he was not calling for immediate, unilateral nuclear disarmament, /5/ his assertion, nevertheless, should be of great concern not only to judge advocates practicing operations law, but indeed to all members of the armed forces.

General Butler's allegation of moral indefensibility, if unanswered, has the dangerous potential to undermine America's nuclear deterrent. While persons subject to the Uniform Code of Military Justice are obliged to obey lawful orders even if they conflict with their individual consciences, /6/ Butler's assertion questions the very legality of such orders.

Even more troubling, his manifesto assaults the ethos of our armed forces - an ethos upon which America's future warfighting success depends. The Chairman of the Joint Chiefs of Staff predicts in *Joint Vision 2010* that "success [in future conflicts] will depend ... upon the ... moral strengths of the individual soldier, sailor, airman, and marine . . . . We will build upon the enduring foundation of... core values and high ethical standards." /7/

For a variety of reasons, nuclear weapons already present profound moral issues with the potential to impact military operations /8/ Obviously, when a military leader of General Butler's stature makes such a claim that he did, the situation becomes more even more exacerbated and conceivably divisive. In its worst extrapolation, moral uncertainty is introduced into the

minds of thousands of conscientious and honorable men and women upon whom America's nuclear deterrent relies uncertainty that could manifest itself at the worst possible time for the Nation. /9/

What might such uncertainty mean for deterrence? The experts tell us that "[t]o deter a nuclear attack, retaliation must be perceived as likely. . . ." /10/ If an enemy perceives that our forces /11/ are too psychologically encumbered by the kind of moral dilemma General Butler's pronouncement encourages to fully respond to an attack, then the adversary may discern an advantage in making one.

Consequently, this article has three purposes: first, it intends to counter General Butler's claim of moral indefensibility by explaining the legal and ethical norms within which U.S. nuclear forces operate. Second, it aims to briefly introduce the practitioner to some of the major legal issues associated with nuclear weapons, as well as to the procedures by which legal advice is incorporated into the planning process. Third, it will discuss practical lessons learned from GLOBAL GUARDIAN 97, America's premier strategic nuclear exercise. This article will conclude by contending that a robust mechanism is in place to ensure that the moral and ethical standards of the rule of law are fully inculcated into America's nuclear deterrent. /12/

## II. LEGALITY OF NUCLEAR WEAPONS

As many practitioners know, the United States has always insisted that nuclear weapons are not inherently unlawful instrumentalities of armed conflict." From time to time, however, elements of the international community have questioned this premise. For example, the United Nations General Assembly has passed a number of non-binding resolutions that have condemned nuclear weapons. /14/

Importantly, the International Court of Justice (ICJ), the judicial arm of the United Nations, issued an advisory opinion in 1996 that addressed the legality of the threat or use of nuclear weapons. /15/ While the ICJ decision does not create a binding precedent in the same sense as a U.S. appellate court, /16/ it is influential in the court of world opinion and, indeed, may be accepted by a considerable number of countries as an expression of customary international law. /17/

The ICJ determined that no existing rule of international law prohibits the use of nuclear weapons in conflict. /18/ Although it concluded that their employment would "*generally* be contrary to rules of international law applicable to armed conflict," the court nevertheless found it could not say that such use was necessarily illegal "in self-defense in which the very survival of a State would be at stake." /19/ Of interest to the practitioner is the court's use of the phrase "a State" instead of "the State." This suggests that the use of nuclear weapons is not limited to the survival of the nuclear-weapons state itself, but that they also could be employed in appropriate circumstances in the collective self-defense of a non-nuclear ally. /20/

More problematic is determining exactly what circumstances and at what point along the continuum of conflict does the "survival" of a state become at stake. /21/ Moreover, what precisely does "survival" of a state mean? Though beyond the scope of this article, one might fairly conclude that, given the UN Charter's emphasis on self-determination and support for the rule of law, "survival" could reasonably be interpreted broadly enough to include freedom from the intense coercion arising from any use of weapons of mass destruction or from an overwhelming conventional threat. Therefore, the ICJ's decision is not necessarily at odds with U.S. doctrine. /22/

The most important implication of the ICJ case for U.S. legal advisors and planners is its reflection of the international community's widely differing views as to the propriety of nuclear weapons. Some allies or coalition partners in a given campaign might, for example, decline to support a nuclear mission under some or any circumstances despite the fact that they are full, cooperative partners in conventional operations. /23/

### III. THE LAW OF ARMED CONFLICT (LOAC)

However ambiguous the ICJ was in other areas, there was no equivocation on its conclusion that any use of nuclear weapons must conform to applicable requirements of international law, and these would include the LOAC concepts of discrimination, military necessity, and proportionality. /24/ This presents little difficulty for American planners as the United States has "long taken the position that various principles of the international law of armed conflict would apply to the use of nuclear weapons as well as other means and methods of warfare." /25/

Still, any discussion of nuclear weapons is complicated by the widespread but mistaken belief that their destructive potential makes it impossible to apply LOAC principles. Actually, modern technologies and methodologies afford planners a number of tools helpful to LOAC compliance. /26/ For example, Joint Publication 3-12.1, *Doctrine for Joint Theater Nuclear Operations* /27/ notes that by reducing weapon yield, improving accuracy through delivery system selection, employing multiple small weapons (as opposed to a single, large device), adjusting the height of burst, and offsetting the desired ground zero, collateral damage can be minimized consistent with military objectives. /28/ A working knowledge of these planning options, along with a general understanding of nuclear weapons themselves, /29/ is extremely helpful to judge advocates tasked to provide LOAC advice for these highly-complex operations.

Additionally, USSTRATCOM's Strategic War Planning System (SWPS) can, among other things, model the probability of arrival, probability of damage, and overall damage expectancy of a given weapon delivered on a selected target by a designated platform. Of particular importance to practitioners, the system can also project expected numbers of casualties, fatalities, and population-at-risk based on information drawn from the Joint Resource Assessment Data Base. /30/ However, SWPS operates within certain parameters and, consequently, the legal advisor must understand its limitations and evaluate the data accordingly. Modeling and decision support systems do not - and must not - supplant the commander's intuition in the execution of the warfighting *art*. It is vital that the practitioner avoid an overly mechanistic application of computer modeling data; it must not become a substitute for a holistic LOAC analysis. /31/

Despite such efforts it is nevertheless true that attacks on certain targets would likely result in sizable civilian casualties. It should be recalled, however, that LOAC places responsibilities for minimizing civilian casualties not just on the attacker, but on the *defender* as well. That responsibility extends to exercising "care to separate individual civilians and the civilian population as such from the vicinity of military objectives." /32/ Where the defender fails to exercise such care, the primary culpability for collateral civilian casualties lies with him, so long as the attacker continues to work to minimize civilian casualties as much as is practicable under the circumstances.

Legal advisors should likewise be aware that while the U.S. does not target populations *per se*, /33/ it reserves the right to do so under the limited circumstance of belligerent reprisal. /34/ The U.S. (along with other declared nuclear powers) insists that Protocol I to the Geneva Conventions /35/ does not apply to nuclear weapons. /36/ Hence, prohibitions contained in Protocol I forbidding reprisals against civilians are not, in the U.S. view, applicable to nuclear operations. /37/

Parenthetically, James W. Child observes in *Nuclear War: The Moral Dimension* that "people have a duty to restrain their government from committing nuclear aggression and if they fail in that duty, their absolute immunity as noncombatants is undermined." /38/

Finally, legal advisors must understand the special political and psychological dimensions of nuclear weapons. Although using nuclear - or any other - weapons merely to terrorize noncombatant civilians is contrary to international law, affecting the mental state of an adversary, degrading his morale, and eroding his will to continue the conflict, can all constitute legitimate military objectives. /39/ The difficulty, as Geoffrey Best notes, is reliably quantifying such amorphous and often quite culturally-specific psychological concepts to the point where one could reasonably conclude before the attack that

a "definite military advantage" would be achieved. /40/

To avoid such dilemmas, Joint Pub 3-12.1 considers, for example, affecting an adversary's "[p]erception of US will and resolve" as an *employment* (as opposed to targeting) consideration. /41/ In other words, under U.S. doctrine a particular target must first be justified in orthodox military terms independent of the psychological or political 'message' the use of nuclear weapons might produce.

#### IV. SPECIAL ISSUES

The exceptional nature of nuclear weapons raises special issues of international law that are beyond the usual LOAC considerations. These include:

##### A. Arms Control and Related Agreements.

A myriad of international agreements exist which in some way touch upon nuclear weapons. /42/ In particular, the Strategic Arms Reduction Treaty (START I)/43/ sets specified limits on the kinds of nuclear strategic systems the U.S. may possess. /44/ Other agreements place restrictions as well. The Outer Space Treaty, /45/ for example, forbids the orbiting or installation (but not transit) of nuclear weapons in space. Similarly, a growing number of terrestrial nuclear-weapon-free zones (NWFZ) agreements have been concluded. /46/

The U.S. is a party to NWFZ agreements which exist for Antarctica, Latin America, Africa, the South Pacific, and the sea-bed. /47/ Usually the U.S. and other nuclear weapons states commit "not to test nuclear weapons inside the zone, not to use or threaten to use the weapons against any treaty or protocol party inside its territory or territorial sea, and not to station, develop, or manufacture nuclear weapons inside the zone." /48/ The U.S., however, considers that none of these agreements compromise freedom of navigation, overflight, and similar rights which otherwise exist. /49/ Nevertheless, judge advocates should be aware that some nations have a different interpretation in this regard./50/

As noted above with regard to NWFZ agreements, the Nuclear Nonproliferation Treaty (NPT)," which was extended for an indefinite period in 1995, presents the rather unique issue of "negative security assurances. /51/ Separate from the text of the treaty itself, the U.S. and other nuclear weapons states foreswore - subject to certain conditions - the use of nuclear weapons against non-nuclear treaty parties. Specifically, the U.S. version of the declaration provided in connection with the NPT extension states:

The United States reaffirms that it will not use nuclear weapons against any non-nuclear-weapon States Parties to the Treaty on the Non Proliferation of Nuclear Weapons except in the case of invasion or any other attack on the United States, its territories, its armed forces, its allies, or on a State towards which it has a security commitment, carried out or sustained by such non-nuclear-weapon State in association or alliance with a nuclear weapons State. /52/

While this statement represents U.S. declaratory policy, it does not equate to a binding international agreement although at least one expert argues to the contrary.<sup>/53/</sup> Nor does it preclude the application of the belligerent reprisal doctrine /54/ in the event, for example, of the use by a treaty party of a non nuclear but unlawful weapon of mass destruction. /55/

### **B. Overflight**

As with any military operation, judge advocates must be concerned with overflight issues. Violations of national airspace are an infringement of the overflown nation's sovereignty and may be opposed by force. Moreover, nations asserting neutrality in a given conflict may feel obliged to take military action against intruders in order to preserve their neutral status. /56/ Still, such encroachments generally do not constitute acts of aggression within the meaning of Article 2(4) of the United Nations Charter. Thus, overflight violations - even as part of a military combat operation - do not per se sustain a Nuremberg-like charge of aggression. /57/

Ordinarily, of course, overflight permission will be sought. /58/ For many of the reasons suggested above, this effort may be complicated by the international community's divergent views of the legality of nuclear weapons. When nuclear operations are in support of a geographic combatant command, it is the responsibility of that organization to ensure that the necessary overflight permissions are obtained. The supported command also must secure any overseas staging authorizations that a particular plan might require.

A further problem is presented by the overflight of ballistic missiles because there is no universally accepted definition of the upward extent of national sovereignty. /59/ There appears to be consensus, however, that systems in orbit are beyond the territorial jurisdiction of particular states.<sup>/60/</sup> Accordingly, overflight of ballistic missiles, at least to the extent they are traversing space at an altitude above the lowest point at which artificial satellites can be placed in orbit without free-falling to earth, is more of a political than legal issue. Legal advisors must, therefore, be well-versed in the relevant political-military environment.

### **C. Civilian Control**

U.S. nuclear forces operate under strict civilian control. Directing the employment of U.S. nuclear weapons "requires the explicit decision of the President." /61/ In this respect, American practice aligns with that of most nuclear weapons states as historian Martin van Creveld observes:

So far as we know, in every country that built the [nuclear] bomb the existing chain of command was bypassed or modified in favor of direct control by the head of state. Either the nuclear arsenal was entrusted to a separate organization considered politically reliable . . . or else technical arrangements, known as Positive Action Links ... were introduced so that the military could not fire them on their own initiative even if they wanted to. /62/

Absent Presidential direction, U.S. military forces cannot use nuclear weapons, even in self-defense. The Atomic Energy Act adds a further measure of security by mandating civilian control over every aspect of nuclear weapons production. /63/

## V. PRACTICUM

Following a classified 1995 study by the USSTRATCOM legal staff, a number of steps were taken to improve the incorporation of legal advice into the nuclear planning process. These changes culminated in what CINCSTRAT called an "unparalleled" level of integration of law into GLOBAL GUARDIAN 97, the strategic nuclear exercise which took place in November 1996. A number of important lessons learned emerged from that exercise.

### **A. Operators must be aware of the specific obligations to incorporate legal reviews into nuclear operations planning on the same basis as conventional operations planning.**

DOD policy has never made any distinction between conventional and nuclear operations when it required compliance with the law of war in the conduct of military operations. /64/ The practical application of this policy, however, was greatly facilitated by the new edition of a Chairman, Joint Chiefs of Staff instruction which specifically requires combatant command legal advisors to review "pre-planned and adaptively planned strategic targets." /65/ This review covers compliance with DOD policy, as well as domestic and international law.

The February 1996 publication Joint Pub 3-12.1 /66/ was also helpful. That document is replete with references to the applicability and importance of LOAC and, accordingly, it served to orient planners and operators to the role of legal advisors.

### **B. The special nature of nuclear operations requires customized training for both operators and legal staffs.**

Because of the many unique applications of international law in the nuclear operations' context, USSTRATCOM's LOAC training was completely revamped prior to GLOBAL GUARDIAN 97. A classified advanced curriculum aimed at operators and others directly involved in nuclear operations augmented the traditional LOAC briefing. Overall, 96% of command personnel were trained prior to the exercise. Specialized training was also provided to senior officers at USSTRATCOM's Task Force commanders' conference in October 1996.

Like the operators, judge advocates and other legal personnel needed additional training to support nuclear operations. Besides being trained as to the special issues already mentioned, designated personnel also needed to become familiar with the policy guidance applicable to nuclear strikes found in such documents as National Security Directives, the Policy Guidance for Nuclear Weapons Employment, and the Joint Strategic Capabilities Plan (Annex C), as well as theater-specific plans.

To meet the requirement for specialized training for its legal personnel, USSTRATCOM conducted in-house training sessions, sometimes with the assistance of representatives of the Plans and Policy Directorate. In addition, that Directorate produced a customized glossary of terms and acronyms applicable to nuclear operations. USSTRATCOM judge advocates, in turn, provided

telephonic briefings (along with selected nuclear-operations oriented legal materials) to their counterparts on the legal staff of the supported geographic combatant command.

**C. In order to provide timely advice, legal advisors must be immediately available to planners and others responsible for nuclear operations.**

During the actual exercise, judge advocate and paralegal representation was found on USSTRATCOM's Senior Battle Staff, the Mobile Consolidated Command Center and, on a 24-hour basis, the Support Battle Staff. Judge advocates were also inaugurated into meetings of the Nuclear Planning Element (NPE).<sup>70</sup> The NPE composition includes the weapons systems experts who build from the bottom up the required technical information for an attack. Constant interaction with these warfighters was especially critical as it afforded the opportunity to provide planners with real-time advice for the adaptive planning process.

Of particular note was USSTRATCOM's employment, for the first time, of a reserve judge advocate to help man the Support Battle Staff. This required a taxing months-long process to obtain the necessary security clearances but proved essential to providing the necessary coverage. It once again underlines how important it is for all operational lawyers, active and reserve, to initiate the process to obtain elevated security clearances as early as possible.

**D. Effective legal support of theater nuclear operations requires the involvement of the legal staffs of the supported geographic CINC.**

While USSTRATCOM legal advisors are primarily responsible for the review of the Single Integrated Operation Plan (SIOP),<sup>70</sup> meeting the legal needs of theater support operations require a coordinated effort of USSTRATCOM legal advisors and their counterparts on the staff of the supported geographic commands.

During GLOBAL GUARDIAN 97, judge advocates were included in the exercise cell of the supported geographic CINC. This development vastly enhanced the flow of information concerning legal issues peculiar to nuclear weapons. In particular, it helped to secure appropriate LOAC assessments and ensured that the special issues that arise in the nuclear operations arena were highlighted in a timely manner to the geographic command staff. The theater CINC's legal staff was also a critical source of theater-specific information required by US STRATCOM's legal staff.

## VI. CONCLUSION

This article demonstrates that nuclear weapons, like other sophisticated instrumentalities of modern war, are amenable to the law of armed conflict in both a theoretical and practical sense. This by no means downplays the horrific capability of these weapons; rather, it serves to remind us of the awesome responsibilities legal advisors must bear. It is crucially important that all military personnel involved with America's nuclear deterrent understand that a structure exists that ensures that plans involving nuclear weapons conform with the rule of law.

Of equal importance is explaining that there is, in fact, a direct relationship between conformance with the rule of law and moral rectitude. Professor Best spells this out: "It must never be forgotten that the law of war, wherever it began at all, began mainly as a matter of

religion and ethics ... It began in ethics and it has kept one foot in ethics ever since." In short, where society's law is observed, one may rightly contend that society's moral standards are likewise respected.

Clearly, whether or not nuclear weapons are "morally indefensible" as General Butler claims wholly depends upon the purpose for which they might be employed and the manner of such employment. Having discussed the latter we must consider the former - is there anything worth defending with a nuclear weapon? What moral rights do we have? Professor Child offers this analysis of the nuclear conundrum:

We have a right to protect ourselves and preserve our society and its traditions. No matter the enormity of harm a potential aggressor might heap upon us and the rest of the planet, that right is not expunged. It is morally correct to put any such aggressor on notice. We know our rights to defend ourselves and shall exercise them. Knowing what we believe about our moral rights, any potential aggressor will know which course prudence dictates. So in the end, this deeper moral understanding of our position might help prevent the most colossal of all catastrophes. /72/

In a very real sense, the issue General Butler raises goes to the more fundamental question of the morality of war itself. For some, war is never morally defensible; others live by the motto "live free or die " /73/ John Stuart Mill captured the essence of this dichotomy in the following passage:

War is an ugly thing, but not the ugliest of things: the decayed and degraded state of moral and patriotic feeling which thinks nothing worth a war, is worse .... A man who has nothing which he cares about more than he does about his personal safety is a miserable creature who has no chance of being free, unless made and kept so by ... better men than himself. /74/

Fortunately for the nation, there are yet such "better" men - and women - manning the Nation's nuclear deterrent. It is their dedication that serves as a clear warning to potential adversaries not to miscalculate the resolve of the U.S. military. Should deterrence fail, our forces are - and must continue to be - ready to immediately execute orders of the national command authorities to employ nuclear weapons. Those that carry this gravest of responsibilities are entitled to be secure in the knowledge that plans they must execute honor the highest ideals of the country they have sworn to defend. They deserve nothing less from their leaders.

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1 As quoted in THE MACMILLAN DICTIONARY OF POLITICAL QUOTATIONS 459 (Lewis D. Eigen and Jonathan P. Siegel, Eds. 1993).

2 For a discussion of the duality of Shiva as a "destroyer" and "creator" see THE WORLD'S GREAT RELIGIONS 16 (Sam Welles et al., eds., 1957).

3 Military historian Martin Van Creveld observes that, ironically, "in every region where [nuclear weapons] have been introduced, large-scale, interstate war has as good as disappeared." Martin Van

Crevel, *Technology and War II*, in THE OXFORD ILLUSTRATED HISTORY OF MODERN WAR 304 (Charles Townsend, ed., 1997) (emphasis in original).

4 General Butler stated that "Nuclear weapons are inherently dangerous, hugely expensive, militarily inefficient, and morally indefensible." See R. Jeffrey Smith, *Retired Nuclear Warrior Sounds Alarm on Weapons*, THE WASHINGTON POST, December 4, 1996, at A1.

5 George Lee Butler, *The General's Bombshell*, THE WASHINGTON POST, January 12, 1997, at C1.

6 MANUAL FOR COURTS-MARTIAL UNITED STATES, ch. IV, para. 14c(2)(a)(iii) (1995) states that "dictates of a person's conscience, religion, or personal philosophy cannot justify or excuse the disobedience of an otherwise lawful order."

7 Chairman of the Joint Chiefs of Staff, JOINT VISION 2010 28, 34 (1996).

8 For example, in 1983, U.S. Catholic Bishops issued a letter entitled *The Challenge of Peace. God's Promise and Our Response* which discussed nuclear war and nuclear deterrence reprinted in WAR, MORALITY, AND THE MILITARY PROFESSION 463 (Malham M. Waikin, ed. 1983). Although the bishops accept the morality of the possession of nuclear weapons for deterrence as an interim step towards complete disarmament, and seem to leave open the possibility that an extremely limited, other-than-first-use employment against purely military targets may be moral, they nevertheless say that "there must be no misunderstanding of our profound skepticism about the moral acceptability of any use of nuclear weapons." *Id.*, at 482. For a critique of the Bishops' letter see John W. Coffey, *The American Bishops on War and Peace* in PARAMETERS OF MILITARY ETHICS (Lloyd J. Matthews, ed., 1989), at 28.

9 To illustrate a circumstance where a moral conundrum might emerge, one analyst of the Bishops' letter notes that approximately thirty percent of the armed forces are comprised of Catholics, and further observes:

Individual soldiers who are Roman Catholic are confronted with a serious choice. If they are going to follow the Bishops' teaching, they will be compelled to disobey an order to fire a countervalue nuclear weapon. An individual may have no crisis of conscience during time of peace. If, however, he is serving in a position in which he could be ordered to launch a countervalue, how would he respond if the order were issued? *Until the time arrives, the answer to the question cannot be known.* By the same token no Roman Catholic can morally issue an order to launch countervalue nuclear weapons. The same choices, tensions, and questions apply to those issuing the orders.

Captain Mary E. McGrath, *Nuclear Weapons: A Crisis of Conscience*, 107 MIL. L. REV. 191, 239 (1985) (emphasis added).

10 Edward Luttwak and Stuart L. Koehl, THE DICTIONARY OF MODERN WAR 166 (1991).

11 In addition to adverse effects on military forces, public support for deterrence can also be eroded if there is a perception that it is based on an immoral and unlawful means. Compare W. Michael Reisman and Chris T. Antoniou, THE LAWS OF WAR xxiv (1994):

In modern popular democracies, even a limited armed conflict requires a substantial base of public support. That support can erode or even reverse itself rapidly, no matter how worthy the political objective, if people believe that the war is being conducted in an unfair, inhumane, or iniquitous way.

*Id.*

12 An established goal and objective of USSTRATCOM is to "[e]mphasize the role of law as a guiding force in our national security strategy." *USSTRATCOM Goals and Objectives*, para. B.4 (1996) (on file with the author).

13 See e.g., U.S. Air Force Pamphlet (AFP) 110-31, *International Law - The Conduct of Armed Conflict and Air Operations*, para. 6-5 (1976).

14 See e.g., *Declaration on the Prohibition of the Use of Nuclear and Thermonuclear Weapons*, United Nations General Assembly (UNGA) Res. 1653 (XVI), Nov. 24, 1961; *NonUse of Force in International Relations and Permanent Prohibition of the Use of Nuclear Weapons*, UNGA Res. 2936, Nov. 29, 1973; and *Convention on the Prohibition of the Use of Nuclear Weapons*, UNGA Res. 47/53C (1992).

15 *Legality of the Threat or Use of Nuclear Weapons*, General List No. 95 (Advisory Opinion of the International Court of Justice, July 8, 1996) [hereinafter ICJ op.]. For an excellent analysis of the case see Michael N. Schmitt, *The International Court of Justice and the Use of Nuclear Weapons* (1997) (draft, forthcoming in the *NAVAL WAR COLLEGE REVIEW*, Fall 1997).

16 See Restatement (Third) of the Foreign Relations Law of the United States § 903 cmt. H, illus. 12 (advisory opinions are binding only when the parties agree that they will be decisive).

17 For a discussion of "customary international law" see Reisman and Antoniou, *supra* note 12, at xix-xxi.

18 ICJ op., *supra* note 15, at para. 105(2)B (emphasis added).

19 *Id.* at para. 105(2)E.

20 See *The International Court of Justice and Nuclear Weapons*, U.S. Air Force *THE REPORTER*, September 1996, at 21-22.

21 Schmitt, *supra* note 15, at 42-43.

22 Chairman of the Joint Chiefs of Staff, Joint Publication 3-12, *Doctrine for Joint Nuclear Operations*, December 1995, at [hereinafter cited as Joint Pub 3-12] states that "the fundamental purpose of US nuclear forces is to deter the use of weapons of mass destruction (WMD), particularly nuclear weapons, and to serve as a hedge against the emergence of an overwhelming conventional threat." *Id.* at v.

23 See Colonel C. Robert Kehler, *Nuclear Armed Adversaries and the Joint Commander*, *NAVAL WAR COLLEGE REVIEW*, Winter 1996, at 7, 9.

24 ICJ op. *supra* note 15, at para. 105(2)D. See also Written Statement of the Government of the United States of America before the International Court of Justice, June 14, 1994 (*Request by the World Health Organization for an Advisory Opinion on the Question of the Legality Under International Law of the Use of Nuclear Weapons by a State in War or Other Armed Conflict*), at 26-31) (discussing the application of various LOAC principles to nuclear operations) [hereinafter U.S. ICJ stmt.]

25 U.S. ICJ stmt. *supra* note 24, at 26. Accord L.C. Green, *THE CONTEMPORARY LAW OF ARMED CONFLICT* 124-126 (1993). For an overview of nuclear weapons in the context of legal and policy issues see Ronald F. Lehman II, *Nuclear Weapons: Deployment, Targeting and Deterrence in NATIONAL SECURITY LAW* (John Norton Moore et al. Eds., 1990) at 485.

26 George Bunn, the former general Counsel for the Arms Control and Disarmament Agency, argues that until the early 1970s, the U.S. lacked the technology to "permit significant discrimination between population and other targets in or near cities." See George Bunn, *US Law of Nuclear Weapons*, *NAVAL WAR COLLEGE REVIEW*, Fall 1984, at 58-59.

27 Chairman of the Joint Chiefs of Staff, Joint Publication 3-12.1, Doctrine for Joint Theater Nuclear Operations, 9 February 1996, [hereinafter Joint Pub 3-12.1].

28 *Id.*, at 111-2 and 111-3.

20 For a very brief explanation of nuclear weapons technology see Luttwak and Koehl, *supra* note 10.

30 These terms have specific definitions. For example, "casualties" are defined as the "estimated number of people who die or receive injuries that require medical treatment due to short term effects (6 months) of nuclear detonations." "Population at Risk" is defined as the "total civilian population in danger of dying, independent of shelter, from short term (6 months) effects of nuclear detonations." See Memorandum, Acronyms/Definitions Used in SIOP Analysis(U), USSTRATCOM Plans and Policy Directorate, Force Assessment Branch (April 1997) (on file with author).

31 Compare Glenn E. James, CHAOS THEORY: THE ESSENTIALS FOR MILITARY APPLICATIONS 57-95 (Newport Paper No. 10, Naval War College, 1996) (discussing the limitations of computer modeling).

32 W. Hays Parks, Air War and the Law of War, 32 A.F. L. REV. 1, 168 (1990).

33 For a historical overview of U.S. doctrine concerning population targeting, see Jeffrey Richelson, Population Targeting and U.S. Strategic Doctrine, in STRATEGIC NUCLEAR TARGETING (Desmond Ball and Jeffrey Richelson, eds., 1986) 234-249.

34 See U.S. ICJ Stmt, *supra* note 24, at 26, 31. "For the purpose of the law of armed conflict, reprisals are retaliation in the form of conduct that would otherwise be unlawful, resorted to by one belligerent in response to violations of the law of war by another belligerent." *Id.*, at 31. Moreover, "[u]nder the customary law of armed conflict, reprisals may only be taken for the purpose of enforcing future compliance with [the] law, and must comply with certain rules limiting scope and effect" *Id.*, citing U.S. Army, Field Manual 27-10, Law of Land Warfare (1956), at 177.

35 Protocol Additional to the Geneva Conventions of August 12, 1949, and relating to the Protection of Victims of International Armed Conflicts, June 8, 1977, U.N. Doc. A/32/144, 16 I.L.M. 1391 [hereinafter Protocol I].

36 U.S. ICJ stmt. *supra* note 24, at 28-29. The U.S. reiterated and detailed this position in a later submission to the ICJ. See Written Comments of the Government of the United States of America on the Submissions of Other States before the International Court of Justice, June 20, 1995 (Request by the World Health Organization for an Advisory Opinion on the Question of the Legality Under International Law of the Use of Nuclear Weapons by a State in War or Other Armed Conflict) at 23-30.

37 *Id.* at 31. See generally, Matt C.C. Bristol III, The Laws of War and Belligerent Reprisals Against Enemy Civilian Populations, 21 A.F. L. REV. 397 (1979).

38 James W. Child, NUCLEAR WAR: THE MORAL DIMENSION 171-172 (1986).

39 See U.S. Navy, Annotated Supplement to the Commander's Handbook of the Law of Naval Operations, Naval Warfare Publication (NWP) 9 (Rev.A) (1989) para. 8.5.1.2 (discussing the prohibition on the bombardment for the sole purpose of terrorizing civilians) and Parks, *supra* note 32, at 142 (discussing the general proposition of psychological purposes as military objectives).

40 See Geoffrey Best, LAW AND WAR SINCE 1945 274-275 (1994).

41 Joint Pub 3-12.1, *supra* note 27, at III-7.

42 For a listing of some of these agreements see Joint Pub 3-12 supra note 22 at Appendix A.

43 Treaty Between the United States of America and the Union of Soviet Socialist Republics on the Reduction and Limitation of Strategic and Offensive Arms, July 31, 1991 reprinted in U.S. Dep't of State Dispatch Supplement (1991).

44 See generally Stewart M. Powell, Nuclear Arms Reductions Roll On, AIR FORCE MAGAZINE, December 1996, at 57.

45 Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and other Celestial Bodies (The Outer Space Treaty), 18 U.S.T 2410, T.I.A.S. No. 6347, 610 U.N.T.S. 205, 27 January 1967. See also Treaty on the Prohibition of the Emplacement of Nuclear Weapons on the Sea-Bed and the Ocean Floor and in the Subsoil Thereof, 23 U.S.T. 701, 955 U.N.T.S. 115, Feb. 11, 1971.

46 See e.g., Antarctic Treaty, Dec. 1, 1959, 12 U.S.T. 794, 402 U.N.T.S. 71; Treaty for the Prohibition of Nuclear Weapons in Latin America (Treaty of Tlatelolco), Feb. 14, 1967, 22 U.S.T. 762, 634 U.N.T.S. 762; South Pacific Nuclear Free Zone Treaty (Treaty of Rarotonga), Aug. 6, 1985, 24 I.L.M. 1442 (1985), and its Protocols; and the African Nuclear-Weapon-Free Zone (Pelindaba Text), May, 1996, 35 I.L.M. 698 (1996). See generally, Mark E. Rosen, Nuclear-Weapons-Free Zones, NAVAL WAR COLLEGE REVIEW, Autumn 1996, at 44.

47 Rosen, *Id.*

4<sup>8</sup> *Id.*, at 47.

49 Lehman, supra note 25, at 542-546.

50 Rosen, supra note 46, at 57 (discussing claim of the former USSR that allowing transit was incompatible with a NWFZ).

51 Treaty on the Non-Proliferation of Nuclear Weapons (NPT), July 1, 1968, 21 U.S.T. 483, 729 U.N.T.S. 161.

52 Dep't of State, Statement of Secretary of State Warren Christopher, April 5, 1995.

53 See George Bunn, Expanding Nuclear Options: Is the U.S. Negating Its Non-Use Pledges?, ARMS CONTROL TODAY, May/June 1996, 7, 9-10.

54 See supra note 34.

55 Contra Bunn supra note 53.

56 Compare Green, supra note 25, at 260-261.

57 Ian Brownlie, INTERNATIONAL LAW AND THE USE OF FORCE BY STATES, 362-363 (1963).

58 It has been widely reported that cruise missiles flew through Iranian airspace during the Gulf War without the explicit permission of the Iranian government. See Michael R. Gordon and General Bernard E. Trainor, THE GENERALS' WAR 116 (1995).

59 AFP 110-31, supra note 13, at para. 2-1h.

60 *Id.*

61 See Joint Pub 3-12 supra note 22, at II-1. See generally Lehman supra note 25, at 501-503 (discussing command and control of U.S. nuclear forces).

62 Van Creveld supra note 3, at 305.

63 See e.g. 42 U.S.C §2121 et seq.

64 Dep't of Defense Directive 5100.7, DOD Law of War Program, July 10, 1979, at para. E. La.

65 Chairman Joint Chiefs of Staff Instruction (CJCSI) 5810.01, Implementation of the DOD Law of War Program, (August 1996), at para. 5c(4) (emphasis added).

66 Supra note 27.

67 For a general overview of nuclear war planning policies, see David Alan Rosenberg, Nuclear War Planning in THE LAWS OF WAR: CONSTRAINTS ON WARFARE IN THE WESTERN WORLD 160-190 (Michael Howard, George J. Andreopoulos, and Mark R. Shulman, eds., 1994).

68 See supra note 30.

69 For a discussion of the mission and organization of the Senior Battle Staff, the Support Battle Staff, and the Nuclear Planning Element see USSTRATCOM Directive 506-4, Crisis Staffing Procedures of the United States Strategic Command Fixed Command Center, 1 March 1996.

70 The Director for Operational Plans and Interoperability (J-7) also has this responsibility. CJCSI 5810.01 supra note 66, at para. 5a(2)(d). The SIOP is the "U.S. contingency plan for strategic nuclear war. The SIOP provides the president and the national command authorities with a variety of attack options, each with its own targets, timing, tactics, and force requirements." Luttwak and Koehl, supra note 10, at 533-534.

71 Best, supra note 40, at 289.

72 Child, supra note 38, at 173.

73 "Live free or die" is motto of the State of New Hampshire.

74 John Stuart Mill in *Dissertations and Discussions*, "The Contest in America" (1859), as quoted in THE COLUMBIA DICTIONARY OF QUOTATIONS (Microsoft Bookshelf ed. 1993) (emphasis in original).