

Chapter IV

Naval Warfare and The Environment

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Deterrence, as articulated in the National Military Strategy,¹ promotes the ideal condition for the protection of the environment. The devastation of the aggressor's homeland should be reason enough to pursue a course other than war . . . yet wars exist. Certainly, in the course of the two World Wars, mankind took a severe toll on the environment—to say nothing of his fellow man. During the Cold War era, the military forces of the two superpowers necessarily had an adverse impact on the environment as they prepared for possible conflict. The environmental damage caused by fifty years of weapons development, maintaining large standing forces, and exercising and operating their forces, has yet to be fully assessed. But it certainly is far less than would have been the case if World War III had come to pass. The environmental damage, as seen on CNN, during the Gulf War highlighted again the degradation that military forces can inflict on the environment in wartime, increasing pressure to regulate the impact that military operations have on the environment in war, as well as peace.

From a military perspective, remedies for environmental concerns should be pursued with appropriate consideration given to future contingencies requiring the use of military force; preventing friction between environmental policy and the realities of military conflict. An absolute ban on environmental damage caused by military operations is inconceivable. War by definition is a “no holds barred affair”. Thus, the real issue is how best to minimize the environmental impact of military operations without constraining the military commander with policies that have little chance of serious consideration in wartime. But most importantly, we must not create uncertainty or risk aversion in the minds of our commanders regarding environmental considerations that could be exploited by their adversaries.

The Nature of War

Doctrine defines war as “a violent clash between two hostile, independent, and irreconcilable wills, each trying to impose itself on the other.”² The very nature of war is synonymous with human casualties and environmental damage. Warfare will always have an adverse impact on the environment; the extent will depend on the willingness of warring nations to conform to environmental regulations that may constrain their ability to achieve victory in the war. Thus, as a practical matter,

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expansion of the law of war to cover environmental concerns could be done in a manner similar to the approach taken in addressing humanitarian concerns. That is, avoiding environmental impact cannot be absolute; clauses like “military necessity” will be needed to recognize that a military commander realistically cannot be expected to place his force or his mission achievement at grave risk to enemy action in order to protect the environment. Nevertheless, military commanders can legitimately be expected to show due regard for avoiding unnecessary environmental damage in the conduct of warfare.

Can war be fought with due regard to the environment? Environmental concerns are having an increasingly significant impact on the conduct of peacetime U.S. military operations. But does compliance with environmental regulations end when war begins? Simply put, can we effectively conduct war using environmental “Marquis of Queensberry” rules when dealing with a “street fighter” who is not similarly constrained?

Naval Warfare Imperatives

Operating on and from the sea, naval forces have a unique ability to provide credible combat forces throughout the world. With the sudden change from the Cold War—with a single, overriding global threat posed by the other superpower—to the post-Cold War environment of multiple potential regional security challenges, the operational demands placed on naval forces have become much more diverse. Naval forces are increasingly being called on to provide the myriad capabilities needed to ensure success across the entire spectrum of military operations. In order to respond decisively to the crisis of the future, we must remain *ready, flexible, self-sustaining and mobile* in peacetime.³ In war, we must maneuver and project fires without restraints. Underpinning the Navy’s ability to provide credible combat forces prior to conflict and during combat are four strategic naval imperatives: realistic, demanding operational training, unimpeded mobility at sea, proven warfighting doctrine and effective weapons.

Training

The U.S. Navy and Marine Corps train to fight and win the nation’s wars. In doing so, we train to a high level of professional competency that allows us to also carry out a broad range of military operations while we posture ourselves for war. Any encroachment on our ability to conduct operational training degrades mission effectiveness. Skills such as anti-submarine warfare can only be honed through the prosecution of targets which requires the deployment of sonobuoys, smokes, explosive signaling devices and torpedoes (exercise and war reserve). Our naval aircraft must conduct low-level bombing on land and sea targets and surface ships must fire their guns. Naval forces must seize, and be given, every opportunity to utilize these weapon systems under conditions which simulate realistic operations.

Not doing so ultimately creates exploitable vulnerabilities within naval forces. Without training as we intend to fight, we limit the effective utilization of the force in time of war.

Although environmental regulations are not aimed at naval forces specifically, they require compliance that impacts, directly or indirectly, on our ability to train effectively. Statutes such as the Marine Protection, Research and Sanctuaries Statute designate various sea areas as national marine sanctuaries. As the number of these sanctuaries increase, they begin to encroach on traditional near-shore training areas. These statutes require vessels to delay, modify or cease training in order to protect certain species of marine life. This conformance significantly affects naval training operations in or near these sanctuaries. A newly established marine sanctuary in Hawaii, for example, and the designated whale critical habitats in submarine transit areas off Georgia and Florida, may lend to a serious impact on naval operations. Although these areas may not be completely restrictive, they do require added operator awareness and compliance efforts that can detract from the realism and effectiveness of training. Environmental compliance has thus become an integral part of planning naval operational training. Ultimately, a point could be reached in which environmental regulations significantly degrade the effectiveness of operational training. At this juncture, we will have reached a point where our military no longer has the confidence or capability to meet the enemy on his terms without incurring unnecessary losses. Protecting the environment at the expense of human life does not meet anyone's sanity test. The challenge, thus, is to credibly articulate that in peacetime.

Weapon firings are a crucial element of peacetime training for combat readiness on deployment. But weapon firings are also of great concern to environmentalists. The military weapons range on Kahoolave Island in Hawaii was closed for several reasons; some included environmental concerns. Other weapons firing ranges are subjects of possible closure or added restrictions. Recently, the Olympic Coast National Marine Sanctuary, an area of several thousand square miles, prohibited all bombing activity in a preexisting training area. As weapons firing ranges are closed or subjected to restrictive regulations, the impact on combat readiness will increase. Naval forces will continue to be innovative and resourceful in working around these obstacles while pursuing their training objectives. But a trend is apparent that could eventually produce shortfalls in our combat readiness.

Mobility

This nation, by virtue of its geography, is a maritime nation. Our vital interests are worldwide. When combined with our national strategy of engagement, naval forces become the force of choice to operate forward and to be engaged, poised to defend critical links abroad. An enduring attribute of naval forces remains its ability to operate forward in support of national interest, secure through mobility upon the waters of

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the world. The law of the sea provides a context of navigational freedom that is essential in meeting national objectives. A high degree of mobility across the broad oceans, through choke points and in littoral regions, is a prerequisite to the success of naval forces in executing the national security strategy.

Mobility can be impeded significantly by international or domestic regulation in the name of a protected environment. Nations wishing to impose their sovereignty beyond the internationally recognized 12 mile limit may use environmental concerns as an instrument of partial leverage. Economic zones can be redefined to include pollution and waste requirements during peacetime which serve to impede our freedom of navigation. As the focus on the environment gains momentum, these types of regulations represent clear dangers. The Act to Prevent Pollution from Ships (APPS) (33 USC 1901-1908) provides for the U.S. implementation of the International Convention for the Prevention of Pollution from Ships (MARPOL). Although a domestic statute, APPS imposes greater environmental obligations upon U.S. warships than is required under MARPOL. Any movement by the international community to implement reciprocal standards will impact naval operations abroad. Heavily used sea lines of approach, such as the Straits of Hormuz or the Malacca Straits, are likely candidates for onerous environmental restrictions. Environmental concerns brought forth by the possibility of collision or the fact that heavy transit of straits may pollute those waters could result in regulation which restricts, limits or prohibits transit without some toll for clean-up. Although hypothetical, many foreign ports already have anti-pollution regulations: Hong Kong and Singapore to cite a few examples.

Restrictions in accessing ports, either for pollution and waste regulation or for nuclear safety matters similarly impede our ability to sustain forward presence and remain engaged globally. Port visits are integral to supplying, servicing and providing morale for forces abroad, as well as showing the flag. These are key elements in the "engagement" policy of our nation. As environmental concerns grow, we must, in the name of national security, challenge those initiatives that encroach on our mobility in much the same manner that we must resist regulations that inappropriately or excessively restrict our free trade upon the oceans and within the ports of the world.

Another development which can hinder the full mobility of our naval forces would be any requirement for naval vessels to enforce environmental regulations. Naval units have already been trained and tasked to maintain continuous vigilance for driftnet fishing vessels and for ships discharging unusually large quantities of waste into the oceans. Just as the humanitarian concerns of rescuing "boat people" around the world interfered with routine operations, a parallel situation can be drawn in which naval forces required to be engaged in enforcing environmental regulation lose their focus from primary responsibilities. This tasking, if significant, could additionally overtax commanders and complicate priorities. To

maintain our freedom of mobility, naval forces must clearly understand and maintain a balance between their primary mission and their obligations to the international community.

Naval Warfighting Doctrine

Sea control, sea denial and power projection are fundamental naval missions. U.S. naval forces train to these missions through tactical doctrine to become the most effective combat forces afloat. The precise operations and tactics executed during war support the naval doctrine that will hopefully yield the greatest success in battle. Dominance of the sea and power projection ashore will inevitably result in the sinking of warships, mining of harbors or striking at strategic centers of gravity. Understanding the environmental impact of these evolutions, naval commanders have an obligation to weigh the expected and necessary environmental impact of the evolution against meeting the military objective. However, to what extent must the commander maneuver to avoid a wildlife refuge? Will a commander be required to select limited precision munitions over “dumb” weapons because of possible collateral damage to the environment? In war, to fight and win will always be of primary concern. Therefore, commanders must fight without unnecessary uncertainty of the tactical options available. The law of war, over time, has evolved to include sanctuaries during armed conflict which have the general support of the international community. With due regard to the law of war, commanders must follow the doctrine they have applied in training in order to optimize their chances of success in conflict.

Targeting, as with doctrine and tactics, requires the utmost clarity in order to meet military objectives. Again, the law of war has established sanctuaries such as cultural locations, hospitals and religious monuments, and has prohibited targets such as dams-which if severely damaged could unleash forces which would create extensive collateral damage. Any alternative targets selected by virtue of environmental concerns must be weighed against the consequences and impact those alternatives may have on the success and risks of the entire military operation. History has many examples of significant military targeting decisions which were made with due regard to humanitarian concerns and which changed the course of the battle. Environmental damage can be minimized through cognizance of environmental concerns. But it should remain clear that in war there are no absolutes; but winning is almost everything.

Weapons

It goes without saying that our naval forces must be properly trained and equipped to fight and win the nation's wars. Naval forces must be provided with those weapons which will give our forces the clear advantage in conflict. With the

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scaling down of our naval forces, it is more important now than ever to field munitions which can do the job effectively with fewer numbers. Our current arsenal of strike weapons, over-the-horizon (OTH) missiles, naval gun projectiles and mines are moving towards precision applications which, by definition, will reduce collateral damage to the environment. However, less damage to the environment is a fallout from developing precision munitions and not the key factor in their development. The weapon development process currently analyzes potential environmental consequences with respect to applicable laws and regulations pertaining to pollution, hazardous material and ecological impact.⁴ Full compliance with these regulations can lead to excessive cost and or modifications to the weapon. We must, therefore, seek a balance between optimum weapon performance and total environmental compliance. Blast effects, heat, and residual by-products from fuel or explosives must be considered in the development of weapons to ensure that they can first meet the capability requirements. It should continue to be our primary concern that we provide our fleet the arsenal needed to inflict high levels of damage on hostile forces in order to bring conflict to a decisive, early conclusion and minimize risk to our forces. An early conclusion also can reduce death, destruction and environmental damage.

Conclusion

Environmental regulations, foreign and domestic, must be clearly written so as not to be misinterpreted by local or state agencies or by the international community, nor to place unwarranted restrictions on naval forces beyond the intent of the regulations. Mobility is fundamental to naval forces; both in peace and war. Regulations that restrict transits of naval vessels due to environmental concerns ignore the importance of mobility and freedom of navigation to naval forces in crisis, peacetime operations and training. Although the need to protect the environment is clear and widely accepted, international regulations that place absolute prohibitions on environmental impact will probably receive minimum support and inconsistent compliance from countries with significant military forces. As a practical matter, application of environmental regulations to the wartime operations of military forces must recognize that avoiding environmental impact cannot be the sole consideration. But military commanders can legitimately be expected to show regard for avoiding *unnecessary* environmental damage in the conduct of their operations.

The U.S. National Military Strategy is built upon the three pillars of peacetime engagement, deterrence and conflict prevention, and fighting and winning our nation's wars.⁵ Naval forces, in support of this strategy, will be forward deployed, and manned, equipped and trained to fight and win.⁶ The naval imperatives of realistic, demanding operational training, unimpeded mobility at sea, proven warfighting doctrine and effective weapons are crucial

to the success of naval forces. Environmental regulations that infringe on these naval imperatives could seriously limit the Navy's ability to carry out national strategy. In essence, naval forces, by their forward and credible capability, act in a preventive role against war . . . and the environmental damage that is so involved.

Notes

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1. U.S. Department of Defense, *National Military Strategy* (1995), at pp. 9-12.
2. U.S. Department of the Navy, *Warfighting*, FMFM 1 (1989), p. 3.
3. U.S. Department of the Navy, *Naval Warfare*, NDP 1 (1993), p. 8.
4. U.S. Department of the Navy, Chief of Naval Operations Instruction 5000.42D (1993), Annex E, *OPNAV Roles and Responsibilities in the Acquisition Process*.
5. *Supra* n. 1, at i-ii.
6. *See* U.S. Department of the Navy, *From the Sea* (1992).