International Law Studies - Volume 65 Targeting Enemy Merchant Shipping Richard J. Grunawalt (Editor)

Chapter V

Targeting Realities: Platforms, Weapons Systems and Capabilities

A paper by James Service *

Comments by J. H. Doyle, Jr.

The opinions shared in this paper are those of the author and do not necessarily reflect the views and opinions of the U.S. Naval War College, the Dept. of the Navy, or Dept. of Defense.

Ν

Targeting Realities: Platforms, Weapons Systems and Capabilities

Ladies and Gentlemen, I am neither a legal scholar nor an academic. In fact, Imy only real academic credential stems from the fact that I once was privileged to preside over the world's finest War College — the institution in which we meet today. What I am is a retired naval officer, an aviator by military profession, and a former Battle Force Commander. Through a period of 35 years of active duty service I became familiar with the responsibility that goes along with the application of military force in pursuit of national interests. My purpose here is to present my view — the view of the naval warrior — of the realities of naval warfare in the modern world. To do this I must first describe what I think might happen during a future conflict.

I. The Future Conflict

We'll start with some assumptions concerning the nature of future conflict. First, I assume that in the current international political climate, the likelihood of a large, conventional and declared war is relatively low, while the likelihood of a limited conflict is high. Second, I assume that any conflict today, particularly one that might be prolonged, will involve economic targeting. Third, I assume that modern warfare, even that of a limited nature, will be fought, in part at least, with technologically advanced weapons. Fourth, and here, perhaps, is my shakiest assumption, I assume that the recent events in the Persian Gulf are a prototype of contemporary international armed conflict which may occur in the maritime environment. Each of these requires some further explication.

A. Limited Conflict

My first assumption, that conflict will be of a limited nature, requires some definition. I fully recognize that "limited" is a term that may mean many things to many people. Certainly it is no comfort to the person being shot at that the conflict he is engaged in may be perceived by outsiders as limited. It is rather like an observation made by Admiral Jim Watkins when he was the Chief of Naval Operations. In referring to the state of world order, he remarked that this may indeed be a time of peace, but it is a very violent one. For my purposes, I view limited conflict as one that involves few belligerents and is conventional (i.e., non-nuclear) in its nature.

In my opinion, we have reached a stage in world history when the interests of peace are truly global in nature. I think it beyond question that it is in the

best interests of both the Soviet Union and the United States to preserve the peace – however tense that peace might be from time to time. To a greater extent than ever before, the world today is largely comprised of status quo powers. More than this, virtually all nations of the world have an interest in containing the effects of armed conflict.

Most nations prefer to see the international polity continue largely as it exists; yet an anomaly persists. In some parts of the world, war still retains the natural and legitimate connotations it had in the Western world prior to World War I. My view of the world yields a "good news/bad news" cliche. The bad news is, international conflict will continue to exist into the foreseeable future, even in the presence of a relatively universal desire for peace. The good news is that such conflict probably will be limited in scope, if not in nature. No rational belligerent nation will want to risk resort to expansive warfighting means that may invite other nations to become belligerents in opposition to them, and no ostensibly neutral nation will want to commit itself to a struggle for its very survival solely in another nation's interest.¹

In addition, since modern technology produces weapons that give a significant advantage to the nation that strikes first, it is unreasonable to expect that highly publicized declarations of war will precede contemporary hostilities. The last declaration of war was the Arab-Israeli War of 1948; since that time, no nation has, in that manner, signaled its intent to engage in hostilities.² Given the technological and legal sophistication of nations today, I will assume that future conflicts also will commence without formalities.

B. Targeting Economic Assets

My second assumption, that future wars will involve targeting of economic assets, is based on two premises. First, I believe the days of territorial conquest are now a part of history. This is not to say that wars may not continue to erupt over disputed claims of sovereign territory, but I consider it highly unlikely that future wars will be fought for literal national survival — in part because the international polity cannot accept the possibility that a nation may pass out of existence at the pleasure of another nation. Witness, for ex.•mple, the concerns of many smaller nations over the relatively benign 1983 invasion of Grenada by U.S. forces.

Second, since territorial conquest is an unlikely result of future wars, an alternative means of bringing armed conflict to a favorable conclusion will be employed. I believe the mechanism of choice will be an attempt to diminish the enemy's economic capability to continue the war effort.³ Of course, throughout history economics frequently has played a role in war-fighting tactics and strategy. The difference today is that now it could be a predominant factor.

If my first assumption is a correct one, that wars will be fought by limited numbers of nations, then in a very real sense, each belligerent will be an island. To the extent that an opposing belligerent can prevent that "island's" ability to resupply and/or to gain economic credits with which to purchase military supplies, a significant, and perhaps a decisive, advantage can be gained. War may not be rational, but it must be functional.

C. Modern Warfare is Technologically Advanced

My third assumption, that future wars will be heavily influenced by modern technological advances in weaponry, is really a product of empirical verification. Once the exclusive province of the more advanced nations, today "smart" weapons, missile technology and highly sophisticated naval platforms are available to virtually all nations. The India-Pakistan war of 1971 was a sobering experience for much of the world simply because it was fought by third-world nations with big-power weapons. In this conflict, the world witnessed the first naval missile battle in history and, I believe, presaged the shape of things to come. Since that time, virtually all nations involved with international armed conflict have employed modern technology to advantage.

The weapons of the Persian Gulf tanker war are clear, contemporary examples of this reality. Iraq employed modern air platforms to launch Exocet missiles at the tankers purchasing oil from Iran. Iran deployed Silkworm missiles both for defensive and offensive purposes. By war's end, both nations were engaged in a "War of the Cities" using modern missile technology.

The practices of other nations serve to underscore the point. Argentina employed Exocet missiles in the Falklands/Malvinas conflict. Brazil and India both are endeavoring to build modern submarine fleets. South Korea, Israel, France and other nations are heavily involved in supplying modern arms to third-world powers. Even guerrilla fighters seem to have unlimited access to modern weapons if they have the cash to purchase them.

D. The Iran-Iraq Tanker War Model of Contemporary Warfare

My final assumption that the Iran-Iraq Tanker War is a model for wars of the future really proceeds from a combination of the three prior assumptions. That war began without formality when Iraq crossed the border to occupy disputed territory. In all likelihood, future wars will begin as this one did or, equally probable, when internal pressures become strong enough for another nation to begin actively supporting insurgent forces.

From the perspective of the belligerents, the war was, of course, total, but it was a war of two belligerents only. It can hardly be argued that either the great powers or the nations of the Middle East were impartial, but all attempted to remain apart from the actual conflict itself. I believe that too will be a pattern for the future.⁴

Of particular interest is the fact that, from the outset, the Persian Gulf Tanker War was a conflict of attrition. The objectives were primarily economic, although later in the war attrition focused on baser objectives (i.e., when the Iran-Iraq

War became a "War of the Cities" and the civilian populace of each nation was deliberately targeted). Iraq clearly focused belligerent efforts on the economic sustenance of Iran's warmaking capability by targeting the tankers purchasing Iranian oil. Iran, without the ability similarly to target Iraqi oil, attempted to make the war economically painful for all nations through indiscriminate mining and violent harassment of merchants bound for other Persian Gulf ports.

Finally, both nations fought the conflict with a combination of traditional means (e.g., armed foot soldiers) and sophisticated weaponry (e.g., Exocet, Scud and Silkworm missiles). In an era when even insurgents have Stinger missiles, modern assault rifles and high-tech weapons platforms, we must expect that nations who fight each other will surely be able to obtain — and equally surely, will utilize — sophisticated means of destruction.

II. Targeting the Enemy

Having laid a predicate for my arguments with the foregoing assumptions, I can now turn to the issue of targeting. Targeting the enemy has, in essence, two main objectives. The first is destruction of the enemy's implements of war and the second is reduction of the enemy's capability to sustain a war effort. Both objectives seek to bring the war to a successful conclusion through attrition. Targeting the enemy implements of war is an obvious necessity, but one not necessarily germane to the issue that you seek to resolve in this conference. Therefore, I turn to the second objective of targeting, reducing the enemy's capability to carry on the fight.

In any prolonged conflict of the future, it will be essential that the enemy's capability to sustain its war effort be targeted from the outset. In a very real sense, war has progressed, if you can call it that, from a territorial imperative to an economic issue. Accordingly, a major role for naval commanders in the future will be to interdict and/or destroy enemy merchant shipping. The concomitant conclusion is that economic viability will be a critical element for any belligerent. This means, in turn, that the military commander will have an equally important task in protecting his own nation's economic base — including merchant vessels.

This objective of warfare is hardly a novel one. Laying siege to the enemy fortification was a form of economic warfare. In the early years of the nineteenth century, France and England were locked in a titanic struggle and each sought to weaken the other through economic means. Napoleon, by the Berlin Decrees of 1806 and the Milan Decrees of 1807, sought to sever Europe's trade with England, imposing, in essence, an outward facing blockade. The British struck back with the "Orders in Council" by which they hoped to regulate trade so as to force their own wares upon Europe while strangling the export trade of France and her allies. Neither system was wholly successful, but both were instrumental in achieving a threshold of economic pain for the other. During the U.S. Civil War, both blockade and targeting of the South's economic base (i.e., international commerce in cotton) played a major role in the North's overall strategy to bring the conflict to a successful conclusion. In both World Wars, Germany made a concerted effort to interdict Great Britain's seaborne resupply efforts while Great Britain, in turn, sought to foreclose all commerce to and from occupied Europe. In the Second World War, the submarine force of the U.S. Pacific Fleet was employed to destroy Japan's merchant fleet and thereby restrict her access to the raw materials that sustained her industrial might. In the India-Pakistan War of 1971 visit-and-search techniques were applied to interdict maritime commerce. Iran also employed visit-and-search techniques extensively during the Iran-Iraq conflict.

In sum, targeting an enemy's economic base has proved in the past to be an effective means of conducting warfare. Not infrequently, it has been a decisive factor, affecting both land and naval campaigns. In an appropriate situation, it may be a decisive factor in bringing hostilities to an early resolution. My conclusion, then, as a student of history and as a former military planner, is that economics will continue to play a significant role in any prolonged armed conflict.

That brings me to the essence of my thesis. Given that economics have played an effective role in warfare of the past, it remains to be seen why targeting the enemy's economic base — that is, actual destruction — is, or may be, necessary. It is fair, I think, to reflect on the utility of less destructive means of coercion, such as visit and search, blockade and mining. Certainly these mechanisms have been effective means of applying economic coercion in the past.

The reality, I believe, is that the structure of the international polity is significantly different today than it was just a few decades ago. Successful avoidance of the strictures of mining and blockade have always been possible through concerted internal effort. Today, however, nations are economically interdependent, international corporations are multi-national in scope and structure and, most importantly, profits are there to be made — or lost — on the vagaries of world conflict. So long as the enormous profits associated with trading in war materials are available, there will be successful attempts to evade international commitments stemming from blockades or national directives attempts that transcend and multiply substantially the capability of the individual nation to avoid the effects of those tactics. In this situation, passive methods of interdicting commerce may be useful, but only marginally so.

III. Capabilities, Limitations and Tactics of Naval Platforms

A. Capabilities

At sea, the essence of tactical success in modern naval warfare has been the ability to first put ordnance on target. In a limited, conventional war, this tactic, when applied to the economic resources of the enemy, well may be a strategic

consideration. Today, the capabilities of naval platforms to accomplish that task are significantly more impressive than their counterparts of only a few years ago. Advanced weapons technology, coupled with increased capabilities to gather real-time information about the potential enemy's disposition and location, puts at hazard the enemy platform in ways never before even conceived.

Missile technology yields a stand-off strike capability that is relatively new. The U.S. Navy's Harpoon, for example, is an anti-ship guided missile with a range of 60 nautical miles. It may be launched from air, surface or subsurface platforms in any weather state. The platform launching the Harpoon may receive guidance data from other platforms and the missile itself requires no data inputs subsequent to launch. During the Iran-Iraq Tanker War, Iraq very effectively used French-made Exocet missiles to target oil tankers doing business with Iran. The high-speed, sea-skimming capabilities of an Exocet makes it a very dangerous weapon indeed, and one for which the merchant ship has little, if any, defense.

In addition to missiles, "smart-weapons" with built-in TV or imaging infrared seeker guidance systems provide a good stand-off capability with a high degree of accuracy. Similarly, wire guided torpedoes and mines that react only to preset conditions may effectively increase the capability to target enemy merchant vessels with specificity and relative safety.

Still, all these capabilities are of little value if the information needed to put the ordnance on target is not known. It is probably pedestrian to say that intelligence is a constant of war, but it is nevertheless true. The value of radar in World War II, or that of the communications intelligence developed in the same era, cannot be overemphasized, and the ability to use stand-off weapons has now put an enhanced premium on having the information needed to accurately deliver those weapons.

The concomitant of weapons technology and "smart" weapons is that intelligence technology has been advanced as well. Today, the ability to gain the information needed effectively to use a stand-off capability also has been developed. The result is that technology and information capabilities coalesce to make sea strikes from afar a probable fact of naval targeting in future conflict.⁵

B. Limitations

Despite these very significant capabilities, there are accompanying limitations. Primary among the limitations of modern naval platforms is their vulnerability. That first strike capability I mentioned previously is a critical advantage in modern naval engagements. No longer are surface ships capable of absorbing those first few cannon shots and still win the battle with skillful seamanship and daring commanders. Air platforms today do not return to base with their canvas skins full of bullet holes. Today's high performance aircraft are more capable than their predecessors, but so are the missile defenses used to thwart an aerial attack. Submarines depend on stealth and deep water for survival and are extremely vulnerable once on the surface.

In addition, if the enemy naval forces are a significant threat relative to your own, battle tactics will require massing your forces in sufficient numbers to apply a concentration of firepower capable of defeating that first attack — or threat of attack. This, in turn, means that the ability to disperse forces for commerce raiding is reduced. Therefore, the probability is that the raider will be a lonely platform.

Moreover, a warcraft with great offensive firepower and little means of defense is an inherently vulnerable platform. That platform will necessarily depend on such variables for a first strike capability as stealth, intelligence and weapon-range combinations plus speed and agility. To successfully survive its attack on the enemy — whether merchant or military — the platform will need the stand-off distance afforded by modern technology merely to ensure escape. The obvious conclusion to be drawn from these facts is that the air platform or the silent submarine, if available, will often be the weapons of choice for targeting the merchant vessel.

Complicating the equation is the fact that there is an inherent scarcity of high value munitions and an uncertain ability for those weapons to destroy the enemy. Surface platforms, even with their greater magazine capabilities, can carry only so much ordnance. Submarines, which are highly vulnerable upon detection, can carry only so many torpedoes or submarine-launched cruise missiles (SLCMs), and aircraft are even more obviously limited. In any prolonged conflict that involves relatively equal naval capabilities between the antagonists, I believe we will see ships at sea with empty missile magazines and, perhaps, little to show for their delivery. When Admiral Arleigh Burke was asked what he would change in the new class of guided missile destroyers named for him, he said he would add a brace of cutlasses.⁶

Finally, intelligence, however capable, still has its limitations and this can present the Battle Group Commander with a dilemma. Propulsion system and radar signatures can be catalogued for high-value military platforms, but the task of assembling definitive targeting information on all merchant vessels would be daunting. Furthermore, repair and replacement of various electronic components would be difficult to track and catalogue as the merchant fleet undergoes periodic maintenance.

The Joint Operational Targeting System (JOTS) overhead satellite systems and tactical systems available to the Battle Group Commander have superb capabilities, but, in the final analysis, none can replace VID (visual identification) to confirm whether the potential target is the right one. There is, therefore, a risk that any attack on merchant shipping launched over-the-horizon without visual ID may find an innocent victim.⁷ I think it is also fair to state that only a few nations possess sophisticated targeting/intelligence systems such as

those I have described. In the absence of such systems, less capable nations will be inclined to shoot first and ask questions later as we have witnessed during the recent Iran/Iraq conflict. In other words, adherence to the 1936 Naval Protocol by one party only (perhaps by the more capable nation) may place it at a considerable disadvantage — at least until it recognizes how the game is being played.

C. Tactics

Given the foregoing, my conclusions as to the tactics likely to be employed in a future war at sea are that over-the-horizon OTH systems, to the extent possible, will be the weapons of choice. Mine warfare may be utilized, and where it is, I would expect that it would be employed primarily to blockade ports or to channelize merchant shipping. Unquestionably, the nation that possesses aerial capabilities to target the enemy merchant vessel will have an advantage that will be fully exploited. And, finally, surface and sub-surface attacks will be swift and carried out with as much stand-off capability as possible to avoid the potential of being targeted in return. Submarines, especially, have awkward command and control and limited defensive capabilities.

I think the conclusions to be drawn from these tactics are fairly clear. There is no doubt in my mind that any platform engaging a merchant will attack without warning and then retreat rapidly from the area of conflict after that attack for the simple reason that the stand-off capabilities available to him are also likely to be available to the enemy as well. The uncomplicated fact is, delaying an exodus from an area of attack will be hazardous to the longevity of the attacker.

IV. Relevance of the 1936 Protocol

All this brings me to the central topic of your discussion today — the relevance in 1990 of the London Protocol of 1936. If I were once again to place myself in the position of a battle group commander, responsible for interdicting enemy commerce on the high seas, I would have to consider the following issues and problems when a possible enemy merchant vessel is discovered.

A. Surface Platform Interdiction

Should my platform engage or warn? If I warn at a distance, will my communication to the merchant reveal my own position and subject me to immediate targeting by enemy warships, enemy aircraft or by the merchant itself?⁸ In any case, would a warning from an unseen enemy be sufficient to cause the merchant to stop and abandon ship? If I warn through visual signals, to avoid electro-magnetic emissions, will the merchant nevertheless broadcast the situation? Is the merchant being escorted by other vessels, including air or sub-surface platforms? Even if none of these situations are immediately threatening, will my proximity in the area for the length of time necessary to warn, to permit the crew to abandon and to then sink or scuttle the merchant nevertheless be unacceptably hazardous to my own unit?

B. Subsurface Platform Interdiction

Should my submarine silently torpedo the merchant or should I come to the surface to warn? All my previous problems with the surface vessel now arise, with a few more thrown in. A submarine on the surface is not only an unwieldy platform, slow to respond and maneuver, but, without the cloak of deep water, it is highly vulnerable with virtually no surface oriented defenses. Moreover, if the merchant should carry armament itself, it would have an immediate tactical advantage over the submarine within range of its weapons system. Even without armament, it is probable that a large merchant would withstand ramming far better than a submarine.

C. The Airborne Platform

Of all platforms, the airborne one stands in the least risk of immediate destruction from warning the enemy merchant before releasing ordnance on it. Yet, here too, the anomaly of the London Protocol for modern warfare is evident. It is true that the air platform may be better able to escape enemy forces called to defend the merchant that has been warned, but that says no more than that the warning may also be the hunter's signal to abandon the quarry. Moreover, the length of time necessary to bring the ship to all stop and to disembark passengers, crew and ship's papers will almost certainly exceed the fuel capability of an attack aircraft to loiter over the target. Indeed, if the aircraft were to be required to permit passengers and crew to disembark prior to commencing a bombing attack, the purpose of the interdiction could be defeated by a dilatory crew. The alternative would be to hold that aircraft may not attack merchant vessels.⁹

V. The Commander's Decision Matrix

The military commander's focus is on his mission, not on the specific platform he may use, and generally not on the specific tactics he may employ, to accomplish the mission.¹⁰ As a general proposition, the military commander will not avoid using an effective and efficient tactic, otherwise lawful, merely because of an ambiguity in international law. Having said that, I also need to say that I do not believe any U.S. military commander would reject, out of hand, any ostensible requirement of international law when structuring his forces and tactics.

I think this is true because we who have been responsible for planning and executing the application of military force are acutely aware that the laws of

armed conflict both serve a valid purpose and complement the principles of warfare. Yet, it is we, and our forces, who sit on that knife's edge when it comes time to take up arms. Because of this, we feel keenly the need for reality and theory to come together in international law and particularly so in the laws of armed conflict. To give you an idea how the military planner might approach this problem, it may be helpful for you to understand how I personally might view the situation. My own decision matrix would begin with observations something like this:

First, my objective is to help bring the war to a speedy conclusion on favorable terms to my government. Second, I have an inherent responsibility to protect my nation's assets — which includes my own forces. Third, I have a similarly inherent responsibility to minimize the effects of war to the extent possible. Fourth, I view interdiction of enemy economic resupply efforts as a viable means of shortening the conflict and minimizing damage on both sides. Fifth, my enemy has targeting capabilities similar to mine. Sixth, I cannot commit all my forces to commerce raiding — substantial assets must be massed to engage enemy military forces or to support the land and air campaign. Seventh, modern communications and intelligence methods are such that, once located, any military platform is at risk from enemy forces. Eighth, high value modern munitions will generally be reserved for high value targets. Ninth, use of iron bombs and naval gunfire will decrease range to potential enemy targets and increase vulnerability. Tenth, in shallow waters or restricted operating areas the vulnerability of submarines is magnified.

As I put these considerations into the tactical situation I find an inherent inconsistency between the most effective means of accomplishing my military mission and the literal requirements of the London Protocol. If I can accomplish my mission with minimal loss of life and destruction of property then, as a responsible military commander, I must do so. While I recognize that the inherent rationale for the London Protocol is to minimize loss of life, with today's modern weapons systems available to most nations, I believe adherence to that Protocol will, more probably than not, yield the opposite result.

Blind adherence to the literal words of the Protocol would unacceptably put at risk all of my forces, decrease the probability of success for my assigned mission and unnecessarily prolong the conflict. My conclusion is, therefore, that the Protocol does not meet well the needs of the community of nations it serves.

If I were to go to war today, with the conditions as I have assumed them to be, I would recommend to my superiors tactics that would be inherently at odds with the London Protocol. Not insignificantly, however, I believe those tactics would be consonant with the original purpose of the Protocol — to minimize the effects of war.

Notes

*Former President, U.S. Naval War College, Newport, R.I. Vice Admiral, U.S. Navy (Ret.). The author would like to express his appreciation for the assistance given by CDR M.E. Bowman, JAGC, USN in editing earlier drafts of this article.

1. I recognize that this analysis does not take into account the collective security provisions of the United Nations Charter. Articles 41 and 42 of the Charter, if implemented, could mandate involvement by nations on behalf of the collective security and peace-keeping mission of the Security Council. A few years ago I might have dismissed that possibility out of hand; today, as the gulf between Western and Bloc nations appears to be narrowing, there may be some potential for implementation of the original collective security mission envisioned in 1945.

2. Some might argue that Panama is a recent exception. Although the United States did not consider that a state of "war" existed, certainly the dictator Noriega gave up a significant advantage with his premature and clumsy declaration that a state of war was in effect between Panama and the United States.

3. Although I do not intend to raise the specter of large scale conventional war, it is worth noting that should such a conflict occur between NATO and Warsaw Pact nations, a primary survival requirement for the Soviets necessarily would be to prevent or delay the resupply of Europe. That, in turn, would mean a military objective of interdicting and/or destroying merchant shipping bound from the United States for European ports.

4. There may be circumstances in which a nation is bound by a collective security arrangement to enter a conflict according to its international obligations. The NATO alliance, for example, is an "attack on one is an attack on all" alliance. Nevertheless, to the extent feasible, I believe that in the origins of any future conflict all nations will endeavor to view the conflict as a "you and he" problem rather than an "us and them" situation.

5. This is certainly true of land targets today. It may be less true of seaborne merchant targets depending on the weaponry available to the belligerent. It is difficult to imagine selecting weaponry as expensive and limited in numbers as the Harpoon to target merchant vessels. On the other hand, if the belligerent has "smart bombs" or weapons such as Exocet missiles available, it should be equally true for the merchant vessel.

6. Wayne P. Hughes, Jr., Fleet Tactics: Theory and Practice 180 (1987).

7. In essence, this was the problem that resulted in the accidental targeting by Iraqi air force pilots of the USS Stark.

8. Although we tend to think of merchants as unarmed traders, in a prolonged conflict I would expect that merchants would receive a certain amount of armament as was the practice in World War II. Certainly shoulder-fired anti-air missile defenses are probable. Naval guns and possibly even some missile support might also be expected.

9. Aircraft are not specifically mentioned in the Protocol. I am aware that the inability of an airplane to provide for the safety of passengers, crew and ships papers has persuaded some commentators to adopt the view that the Protocol stands for the proposition that air interdiction and destruction of merchant shipping is not permitted. If this were true, I would view the result as a situation in which international law acted as a bar to a legitimate exercise of armed force. In a full career of association with the laws of armed conflict it has never occurred to me that such a bar would be a rational expression of international law. Moreover, if it did purport to be such a bar I seriously doubt that the "law" would be followed for the simple reason that it would not be an accurate expression of the international will.

10. By this I do not mean that any and all means may be employed or that any and all weapons may be used. The predicate for military planning is legitimacy, both in weapons and in tactics.