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## Chapter VI

# Strategic Imperatives: Economic Warfare at Sea

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## Strategic Imperatives: Economic Warfare at Sea

“Economic Warfare at Sea” is a centuries-old practice often employed by naval forces of nations seeking to gain victory by reducing the enemy’s warfighting potential, rather than frontally attacking on land and overcoming him through bloody assault. If this practice has been used down the years, it is also a very current tool in prosecuting warfare in the late twentieth century, as most recently demonstrated in the eight-year Iran-Iraq War. So it is most appropriate, at a symposium on the “Law of Naval Warfare and the Targeting of Merchant Shipping”, that we consider the strategic imperatives which may drive the belligerent nations to attack the merchant shipping of their enemy, and even of neutrals, while we also consider the reciprocal imperatives which may drive the neutral nations to defend their merchant shipping.

In ancient times, nations did not have the benefit of an international code to mark the legal bounds of their conduct of war at sea. In modern times, particularly in the twentieth century, these bounds of lawful maritime behavior have been defined with some precision and tabulated. But they are quite frequently transgressed even by the “best” in the family of nations. Indeed, the layman might be surprised to learn that the international law of naval warfare is as frequently determined by “customary law” as it is by laws codified in treaties.<sup>1</sup> Therefore, in putting into practice their strategic imperatives, nations can actually rewrite the law of naval warfare - provided they obtain enough concurrence in theory, and congruence in practice, among other nations.

In this paper, I intend to explore strategic imperatives within two generalized scenarios: first, in global conventional war between the two superpowers and their respective alliances; next, in the context of limited conflicts between two nations other than the superpowers. I will also look at some of the future variables in limited war at sea, as brought about by transfers of technology and the horizontal proliferation of sophisticated weapon systems.

I have decided not to treat scenarios which include nuclear exchanges among any of the current or candidate nuclear powers. In such a circumstance, economic warfare at sea would have been so overshadowed by the nuclear conflict as to greatly diminish the weight of considerations given to international law at the lower levels of conflict. The powers involved would undoubtedly do whatever they deemed essential to conduct warfare at the more destructive levels. The nuclear “imperatives” would be so compelling as to deemphasize the finer points of the law of armed conflict. One eminent jurist has said it this way: “if it came to the point where strategic nuclear weapons were resorted to, the

boundaries of limited war would have been passed and the law would have little relevance."<sup>2</sup>

Before going further, though, let us narrow the focus on what it is we will be discussing when we refer in this paper to "economic warfare at sea." In the modern literature on economic warfare, there are entire volumes written which include under this general heading any form of coercion which is used by a nation to reduce the economic strength and war potential of an adversary.<sup>3</sup> While that may be a useful definition for broader treatises, in this instance we will limit our definition of "economic warfare at sea" to the use or threat of use of military means in a maritime environment to reduce the power of an enemy during overt hostilities.

### The Case of Global Conventional War

Now let's take a look at the first scenario: global conventional war between the Warsaw Pact and NATO. In recent years, the writing of a plausible scenario for the start of such a war has challenged the intellects of some of our best strategic thinkers. They invariably conclude that no intelligent scenario can be devised which could possibly justify launching such a conflict.

Since the advent of *perestroika*, and particularly over the last six months, it has become increasingly difficult to imagine the Warsaw Pact as a viable fighting alliance; we would have to regress to the politics of the Brezhnev era to be able to imagine the unimaginable. But for the sake of strategic imperatives and international law, let us assume such a war "happened." After all, the military and naval forces for such a conflict still exist; it's only the changeable political forces which have made a NATO/Warsaw Pact war less likely.

In the Warsaw Pact - NATO scenario, the easiest conclusion to reach with regard to economic warfare at sea is one that says: The Warsaw Pact has interior lines of communication; NATO depends on the sea lines of communication (SLOC); therefore, the Soviets are compelled to resort to unrestricted warfare against merchantmen to stop the flow of reinforcements and resupply from the United States to Europe.

To strengthen that conclusion, many would compare the Soviets' inventory of over 350 submarines with that of Germany's inventory of less than 50 at the start of World War II. It's never quite that simple. While the obvious may have some ring of truth, there are complicating factors on both sides of the equation.

In a protracted war between the two super-alliances, it would be reasonable to expect both sides to attempt to avoid crossing the nuclear threshold. Yet so powerful and ultimate are the nuclear arsenals that both sides would be likely to focus as much or more on the nuclear balance as they would on the battles in the ongoing campaign, in what the Soviets have called the "conventional phase" of war.

The Soviets have long emphasized the importance of their maritime defense perimeter as a means of protecting the homeland. They write of the need to establish "sea denial" zones and to destroy NATO naval forces in those areas. They are particularly concerned about platforms equipped with nuclear strike weapons – that is, those that can threaten the homeland with nuclear warheads contained in cruise missiles, gravity bombs, and ballistic missiles. Closer to the homeland, the Soviets have delineated "sea control" areas in which they would particularly desire to prevent the penetration of NATO's nuclear-powered attack submarines (SSNs). Even in 1990, NATO, and especially the United States, has such superiority in individual nuclear submarine performance that the Soviets must maintain defensive forces in depth to protect the seabased element of their strategic nuclear forces. This is no mean task and will require many nuclear attack submarines and other surface and air platforms dedicated to the defense of their ballistic missile submarines (SSBNs).

The United States Navy has already dispersed its nuclear strike arsenal, and will continue to do so throughout the 1990s. Instead of having fourteen carriers and fewer than forty SSBNs capable of nuclear strike, the U.S. Navy continues to fit out Tomahawk missiles in more than 80 attack submarines and 55 surface combatants already in the Fleet, with more to come. Along with the SSBNs of our British and French allies, this nuclear-capable naval force puts a great strain on the assets of the Soviet Navy for defense of the homeland. In the near term, they are faced with over 200 NATO ships and submarines, and 500 U.S. sea-based strike aircraft, all capable of penetrating the heart of Mother Russia with nuclear warheads.

Such a strong NATO offensive maritime force complicates that easily-concocted Soviet "strategic imperative" for SLOC interdiction of merchant shipping. It means that the Soviets can ill afford an extensive naval campaign against enemy merchantmen, let alone against truly neutral merchantmen. They would have to concentrate more on targets which include naval combatants, naval auxiliaries, reinforcement shipping in convoys, and amphibious task forces. All of these ships are either *prima facie* military warships or can be said to have taken on the character of warships. Therefore, according to current international law, they are subject to attack without warning.

There are also tactical considerations which militate against indiscriminate attacks on merchantmen in the global scenario. The first applies to submarines in particular: with so many other, more lucrative targets at sea, it would seldom be worth it to reveal a submarine's position in order to destroy one merchantman, be it an enemy or a bonafide neutral carrying neutral cargo to a neutral port. With the responsiveness and capabilities of NATO Maritime Patrol Aircraft, ASW (anti-submarine warfare) surface combatants and submarines, the reward for attacking innocent merchantmen is not likely to overcome the risk factor, particularly for the classes of Soviet nuclear attack submarines likely to

be assigned to such SLOC duties. Secondly, the Soviet Navy's ability to replenish weapons at sea is so limited, especially if engaged in combat with NATO, that there are likely to be practical if not doctrinal restrictions placed on the threshold value of targets to be attacked and on the minimum number of weapons to be retained for self-defense. While these considerations apply mostly to combatant ships, especially submarines, similar practical limits will apply to maritime strike aircraft and their Long-Range Aviation counterparts. For the European Theater in particular, Soviet bombers will have to penetrate NATO land-based air defenses to get at most ship targets. Is it worth it to attempt to transit this hostile airspace and then, perhaps, to be confronted by naval air defenses in order to sink individual merchantmen? We think not.

So the strategic imperative of hitting NATO's reinforcement and resupply shipping is not necessarily so compelling early in a NATO-Warsaw Pact war.

That is not to say that the Soviets might not attempt such a campaign on a limited scale. They undoubtedly would, if for no other reason than to complicate the problem for the NATO navies by tying down ASW assets. Nevertheless, their primary targets will be naval combatants and such merchant ships as are included in convoys or other task groups - those laden with military hardware and other military supplies. Their attacks should be concentrated on these legitimate targets - militarily-useful ships - and not on what's commonly referred to as "economic shipping." The latter, which would carry essential foodstuffs and other sustenance for the civilian populations, may be dispatched on individual sailings in protected sea lanes. In such circumstances, they represent low-value, moderate-risk targets, and generally ought not to be regarded as worth the effort in the Soviet's calculus.

The truly compelling thing about the World War III scenario is the high stakes for the participant nations. If World War II were so hard-fought at sea with so little regard for the inviolability of international law with respect to merchant shipping, and if the Nuremberg courts were so understanding of violations of law in this area, then why should World War III be any less compulsive when it comes to risk-benefit analysis? The one overriding imperative from the Soviet point of view is likely to be maximization of exchange ratios, whatever the target, and to hell with international law.

The same might be said for the problem of inadvertent targeting of non-combatants by Soviet over-the-horizon missiles, be they sub-, air-, or surface-launched. It is probably a question of the solutions retrieved from a correlation-of-forces equation more than a question of compliance with law. How many weapons are left in the inventory, and is the missile platform likely to return to fight another day? In most cases, positive visual identification is not worth the trouble!

So much for the Soviets in this scenario and their strategic imperatives on the offensive.

From the perspective of the U.S. and NATO, what will be the strategic imperatives regarding economic warfare at sea in the same scenario?

Certainly the Soviets can reach all their Warsaw Pact allies and their Far Eastern Continental Theater via land lines of communication. However, the Trans-Siberian Railway, deep as it is inside the Soviet Union, is still vulnerable to destruction at key junctures. Even though breaks in that intercontinental conveyor might not mean more than a temporary disruption in its services, we should expect that the Soviets have planned for such contingencies, and that the Far Eastern Military District - absent any conflict on the Chinese border - could be essentially self-sustaining in military supplies and foodstuffs for at least six months.

The polar shipping route, used in the warmer months, could be easily interdicted; the Danish and Turkish Straits, hopefully still under NATO control or at least mined closed, would preclude the need for an oceanic SLOC campaign by NATO. Nevertheless, there are other areas where NATO should be aggressively pressing interdiction of Warsaw Pact merchantmen. These are in the Baltic and Black Seas. With NATO dedicating much of its air power to FOFA - Follow On Forces Attack - or deep interdiction, the Baltic and Black Seas would be important reinforcement waterways to Poland, East Germany, Bulgaria, Romania and, via the Danube and other rivers, even to the heart of central Europe. There are not likely to be many neutral merchantmen in the way, even from the Scandinavian countries.

In summary then, what conclusions would we take from our consideration of the first scenario - general, conventional, worldwide war - and the strategic imperatives pertaining to economic warfare at sea. First, we would conclude that, because the stakes are so high, both sides would do what they must to succeed. Faint attempts might be made to enshroud, within the cloak of the law, those naval encounters with merchantmen carrying only humanitarian support for civilians. But not much time will be spent debating proprieties; practical exigencies will dominate, as they did in World War II.

Second, NATO and the neutrals of the world would generally benefit from the strictest adherence by all parties, to the international law dealing with combatants and merchantmen. The Warsaw Treaty Organization would have the least to gain by complying with such law. At any rate, because of some very practical war-fighting constraints in the nuclear age, the Soviets are not likely to expend considerable resources on merchantmen dedicated to "economic" cargoes.

### Limited Conflicts

For our second scenario, I have chosen limited conflicts between two nations other than the United States and the Soviet Union. I don't intend to use any

particular conflict or set of adversaries as a case study. Rather, I'll treat limited war at sea as a general category of conflict, and I'll consider strategic imperatives in these circumstances as necessary judgments or propositions of not only belligerents on the one hand, but those of the neutrals as well. Then I'll refer to the major powers as a particular class of neutrals.

For our purposes, perhaps the best treatment of the genus "limited war" is that contained in the second volume of D.P. O'Connell's *The International Law of the Sea*. In it he categorizes all conflicts since World War II as limited conflicts, and then states that the characteristic limitations of these conflicts were one or more of the following: "the theater of operations; the scale of operations and level of weaponry; and the graduation of force and the scale of response."<sup>4</sup> I'll adopt these as descriptors for my treatment of economic warfare at sea in a limited war. Later I'll discuss the potential for outgrowing these limitations.

First, we must remember that the belligerents in limited wars will usually have that same strategic imperative that the major powers had in World War II: that is, to achieve victory. Whether it be war between Iran and Iraq, Arabs and Israelis, or India and Pakistan, the first objective is success in combat. It is only when the first goal is not attainable that most countries will settle for a "draw," or, as a last resort, will they opt for national survival in circumstances that would otherwise represent total defeat. These statements may be self-evident, but sometimes we seem to forget them. It should be understandable that the behavior of "third-world" nations, as warriors, can be as fiercely dedicated toward that first goal of victory as the Axis or Allied powers were in the last World War. After all, they too are fighting for personal and national survival. As long as they seem to be able to achieve their goal, while remaining within the principal bounds of commonly accepted international law, most will comply with the rules, and most will keep their war "limited." Frustrate their progress toward that goal, however, and we can expect that they will depart from international law, as required, in order to restore their progress. It seems that, the closer nations come to defeat, the more dastardly are their deeds.

In 1983, after having been at war with Iran for three years, Iraq looked as if it would be defeated by sheer force of numbers. At that point, Iraq resorted to the first use of chemical weapons.<sup>5</sup> Later, as the Iraqi air blockade pulled the noose tighter around Iranian oil exports, the Iranians responded with the illegal use of mines and indiscriminate attacks upon neutral shipping.<sup>6</sup> As one observer put it, "the very success of Iraq's air blockade compelled Iranian retaliation."<sup>7</sup>

It's also instructive to remember that, in both World Wars, belligerents on both sides varied their compliance with the law of naval warfare, as it was understood, with regard to submarine attacks on merchant shipping. In the First World War, the Germans did several legalistic U-turns in the U-boat campaign, alternately forbidding and permitting unrestricted submarine warfare against merchantmen. Again in the Second World War, Germany began by observing

the London Protocol of 1936, but by 1940 unrestricted submarine warfare was once more the order of the day; and the United States entered the war using the more practical standard instead of that prescribed by the Protocol.<sup>8</sup> Adherence to international law seems to have a lot to do with desperation and advantage in combat.

Why should we, then, expect greater compliance with international law in limited wars than we have seen in the two world wars? It reminds one of the rifleman's complaint against the term "Lower Intensity Conflict"; he asks: "lower intensity for whom?"

The second strategic imperative in economic warfare at sea during limited conflicts is one the neutrals should be demanding of the belligerents - that is, adherence to the law of neutrality.

If the law of neutrality had its origin in the doctrines of mercantilism, its evolution to this day has been generally beneficial for the material well-being of most of mankind. But we are now really only at the threshold of an era where the preservation of that law becomes even more challenging. Three occurrences in the last two decades have demonstrated the increasing importance of the interdependence in trade and investment of the world's nations. The first was the OPEC countries' successful constriction of the world's oil supply in the 1970s and the resultant economic dislocations, not the least of which was the high rate of inflation in the United States; second was the crash of the international financial markets, more or less in unison, in October 1987; and third was the infringement upon neutral rights in the Iran-Iraq War.

Economic disruptions in one part of the world have tended to cascade into major crises in other corners of the world. This chain reaction among the major powers has occurred repeatedly, not just in the three major events mentioned, but in many other lesser ones as well. In that same twenty year period, we have seen how some smaller states, e.g. Iran, Syria, Israel, Libya, and even Saudi Arabia, have been able to leverage their influence over world events - all out of proportion to their populations and resources in the family of nations.

So as the world political economy becomes more interrelated if not interlocked, nations must individually and collectively demand stricter observance of the rights of neutrals. If the barbarians wish to fight the barbarians, their battles must be constrained by the law of armed conflict, including the law of neutrality.

Our third imperative is merely a corollary of the second; it says that enforcement of the law of neutrality will be required. The more powerful nations will not allow themselves to be weakened or economically devastated as a result of conflict among lesser powers. When a society achieves a higher standard of living over a period of time, that higher standard of living redefines those things which are considered "necessities" of life. So it will be the populaces, if not the governments, who will demand noninterference with their material pleasures. Stating the imperative in this manner still leaves open the question as to how to

enforce this neutral side of international law. Diplomats and jurists would undoubtedly adopt the more reasonable and pacific approaches to dissuade belligerents from infringing on the rights of neutrals. The preferred methods in such matters would range from the use of “enraged world public opinion”, to economic sanctions short of overt hostilities, to demands for adherence to law, to exhortations for “police action” under the auspices of the United Nations. Unquestionably, these are the most desirable means for the restoration of the rights of neutrals – the court or courts of first resort. Any experienced military advisor should also prefer these means to the final arbiter, the use of superior force.

Yet if none of the pacific means succeeds, the use of sufficient force may become the only remaining option – short of taking no action and suffering the further erosion of the rights of neutrals as a consequence. The key word, of course, is “sufficient.” On the one hand, in this legal frame of reference, one should first acknowledge that some basic principles apply: the doctrines of military necessity, proportionality, and humanity. These are concepts of which all of you are most knowledgeable. They all rightly serve to limit the amount, type and manner in which force may be applied even in upholding the law.

The question of sufficiency or economy of force, however, has another side to it: what is enough force for mission accomplishment, that is, for the enforcement of the rights of neutrals? I will shortly discuss the case of sufficiency of naval forces for guaranteeing the freedom of the seas in the future. For now, let’s consider the present-day sufficiency. The most interesting historical case with closest proximity in time is the Persian Gulf War and the self-help enforcement actions of the United States and some of our NATO allies operating in a non-NATO framework. Generally we can say that sufficient but not excessive force was used by neutrals in and over the Gulf. The two extremes in this application of force in defense of the rights of neutrals were the *Stark* and *Vincennes* incidents. Both represent aberrations from the intended norm of self-defense – the *Stark* incident being a failure to act, and the *Vincennes* a precipitous action taken in error. Both extremes are well documented in the open literature.<sup>9</sup>

Contrasting with them are the circumstances and execution of Operation Praying Mantis, the U.S. Navy’s anti-Iranian strikes in the Persian Gulf on April 18, 1988. After reading the first-hand accounts of two senior commanders in that battle, one would be hard-pressed to criticize the operation for the applications of either too much or too little force. Unquestionably, more force was available than was applied, and the operation did not extend too far in terms of time, or in terms of additional targets. They might have hit other naval targets in port, or land-based targets such as the Silkworm missiles, or some of the airborne Iranian fighters – but they didn’t.<sup>10</sup>

With the benefit of historical vision, however, let's look at another proposal, and how it might have fared in the same battle. In an article in the New York Times on October 20, 1987 and at various other forums in that timeframe, Elliot Richardson and Cyrus Vance together suggested that the duties of enforcer in the Gulf could be performed with less hazard through U.N. auspices, utilizing a number of unarmed patrol boats as well as naval vessels from member states, not to include the U.S. or U.S.S.R.<sup>11</sup> On another occasion, Mr. Richardson stated: "You would then have a small U.N. fleet with an effective capability comparable to the U.S. presence in the Gulf today - somewhat smaller, perhaps, but essentially equivalent."<sup>12</sup> For command and control, Mr. Richardson would have enjoined the Security Council of the U.N., as a body, to "decide in advance what kind of response would be appropriate to what kind of provocation" . . . should the U.N. escort vessels themselves . . . "be subject to some significant attack." At the time he was comparing the proposed U.N. force of frigates with a U.S. Navy force of 38 ships.<sup>13</sup>

Without comparing the proposed and the real-world forces in every respect, and without detailing each action of the Iranians during Operation Praying Mantis, one might characterize Mr. Richardson's proposal as a formula for U.N. disaster. In it he demonstrated a serious lack of understanding of the military problem in the Gulf in 1987-88. He not only underestimated the capabilities of Iranian patrol boats, guided missile frigates, and fighter aircraft, he also underestimated the contributions of U.S. Air Force AWACs aircraft and KC-10 tankers, and particularly the complexities of the command, control and communications problems, especially the positive ID requirement with Soviets and other third parties intermingled.<sup>14</sup> One might also surmise that he had never studied the Falklands/Malvinas campaign to discover how close the Royal Navy had come to sustaining more grievous losses in May-June 1982.

In summary, then, the point of this strategic imperative is to ensure that you send more than enough force to accomplish the mission of enforcing the rights of neutrals, and then measure your response to violations of those rights.

For our last proposition, we would maintain that, in order to keep limited wars limited, it is essential to maintain some distance between the major powers. By this we mean that, almost by definition, we should not allow both the Soviet Union and the United States to become active "enforcers" of neutrality in the same theater of operations - particularly if they were to view themselves as enforcers against one another's clients.

Most recently in the Persian Gulf War, one could easily build a case to support the thesis that both the U.S. and U.S.S.R. leaned (perhaps rather heavily) toward Iraq and away from Iran. So the superpowers did not assume the roles of *opposing* military powers in that case. Nevertheless, as reported in the Naval Institute Proceedings, at one point during Operation Praying Mantis, the U.S. destroyer *Merrill* had a warship closing at 25 knots; it was tentatively

interpreted to be a “possible Iranian SAAM FFG”. As *Merrill* made preparations for a Harpoon missile attack amidst the many other hostile actions that day, a U.S. helicopter investigated the target at closer range, obtaining positive identification on a Soviet Sovremenny-class DDG.<sup>15</sup>

The circumstances were substantially different in the Indo-Pakistani War of December 1971. O’Connell treats the differences succinctly:

“The naval operations conducted by India against the port of Karachi and in the Gulf of Bengal took no account of international law, which was, indeed deliberately put to one side by the Indian naval staff. The result was that the operations spilled over into the high seas, a naval blockade of Pakistan was proclaimed, and shipping was attacked. In the course of these operations neutral ships were sunk, one with total loss of life. In every sense, the Indian naval operations accepted no limitation as to area or scale. Was this then a case of ‘limited war’?<sup>16</sup>

The only limitation seems to have been in the duration of the conflict; it lasted only two weeks. What if it had lasted longer; what if the proclaimed blockade had been prolonged and effective; what if tanker traffic in the nearby Persian Gulf had become involved, while the United States was deeply committed to the Vietnam War?

The important factor, which is often overlooked in considering the Indo-Pakistani War, is that both the United States and the Soviet Union sent task groups to the high seas of the Bay of Bengal, where the aircraft carrier USS *Enterprise* and her escorts took measure of the Soviet group which included some of their most modern cruisers. Even if the mission had only been enforcement of the law of neutrality, what mischief might have ensued?

The Soviet Union and the United States are now beginning to find areas of mutually beneficial, not competing interests. But, for this paper, I don’t intend to limit our definition of “major powers” to those two nations. In terms of naval forces, at least two of our NATO allies can currently be categorized as “major powers”, and we would also include China, and Japan as powers with very sizeable and capable navies. It is important that these powers, as well, do not face off against each other in conflicts started by opposing “client” states.

At the same time, we are faced with a “use it or lose it” quandary: someone will have to protect the rights of nonbelligerents, or the law of neutrality will become non-existent. One would hope that other nations, not parties to limited wars, would actively protect their own rights when capable of doing so, and *not* rely on the United States Navy to do all the dirty work.

### Future Wars and Weapons

It does no good to lament the demise of the legality of “war” and the efficacy of the law of war merely because Article 2 of the United Nations Charter outlaws

the use of force in resolving international disputes. It would appear that, in fact, nations continue to fight “wars” in the last half of the twentieth century about as often as they did in the previous one hundred and fifty years. We now have as great a need for the laws of armed conflict and neutrality as we had prior to 1945. For the benefit of belligerents and non-combatants alike – both nations and individuals – it is essential to protect and preserve as much of that body of international law as we can. Without both the law and enforcement of the law, “limited” wars of the future could easily get well beyond the limiting factors that we accepted earlier in the paper: “the theater of operations; the scale of operations and level of weaponry, and the graduation of force and the scale of response.”<sup>17</sup> I’ll restrict my discussion of the future to that element of limited war to which I was assigned, namely economic warfare at sea. But there are obvious parallels in land warfare which one can easily imagine without their being drawn out here.

The inevitable development I see in the future is the proliferation of the possession and use of more sophisticated and more destructive weapons systems among many more countries. A recession in the arms industries of the Western democracies and others – due to the events in Eastern Europe – is likely to spur brisk competition to satisfy third-world demands at international arms bazaars. Old enmities are not likely to soon fade away. So I would anticipate that these new systems will eventually be employed in limited conflicts, against both belligerents and neutrals, unless the penalties for their illegal use are prohibitively high. The weapons we have in mind are: cruise and ballistic missiles with conventional and chemical warheads; more sophisticated mines at sea; nuclear submarines; precision targeting systems employed with conventional warheads of far greater destructive power; stronger land-based air forces with enhanced capabilities for war at sea; and, in some cases, increased sea-based aviation capabilities.

Iraq’s economic warfare against Iran is credited with “the distinction of being perhaps the sole example in history of a successful economic blockade essentially carried out by air power alone.”<sup>18</sup> But it does not stand alone as a use of land-based tactical aviation, armed with air-to-surface missiles, employed in war at sea. In the Falklands-Malvinas conflict, Argentina was extremely successful in attacking Royal Navy ships with only five Super-Etendard aircraft and about as many Exocet missiles. These events tell us that we can expect more of the same employment in the future, only with longer-range aircraft and missiles. In the Praying Mantis operation, the U.S. required positive visual identification before permitting ships and aircraft to attack surface combatants with medium-range Harpoon, Walleye, and Standard missiles. This required U.S. helicopters and attack aircraft to risk the first few rounds of SAMs and gunfire as they got close enough for positive identification with the prevailing limit of visibility.<sup>19</sup> Although there are electronic and infrared means of detection and classification

of targets, some countries may not have these means to identify targets from a distance, yet will have the aircraft and missiles to press the attack. Will they hazard themselves to take a quick look-see on the first pass? The answer is probably not unless they can expect retribution for attacking a truly neutral merchantman, or an escorting neutral combatant. Argentine aircraft were flying roughly 350 nautical miles, with inflight refueling, in order to reach their targets. What does that tell us about the future limitation on the extent of the theater of operations?

In both the Indo-Pakistani and the Falklands-Malvinas wars, submarines were used in combat.<sup>20</sup> In fact, in the Falklands we had the first use of a nuclear-powered submarine in combat. The ownership of nuclear submarines is spreading to the third-world as India has received the first of possibly four Charlie-class nuclear-powered attack submarines from the Soviet Union.<sup>21</sup> China builds her own Han-class SSNs as well as Xia-class nuclear-powered ballistic missile submarines. If the U.K. and Germany could impose long-distance blockades on each other in the two World Wars, why could not India do likewise with her Charlie-class submarines in the Arabian Sea and the Gulf of Oman against Pakistan? In fact, if the Argentines had already received their full complements of Super-Etendards and Exocets before war broke out in 1982, and had driven off the British surface fleet, would the next step for the U.K. have been a close blockade of Argentine ports by Royal Navy SSN's?

Write your own scenarios if the ones offered appear too far-fetched. But the weapon systems are proliferating and their capabilities in speed, range, and destructive power are increasing. Many nations are developing ballistic missile capabilities; recent literature suggests that about fifteen nations now have the ability to produce mid-range missiles, and India already has a 1500-mile missile, the Agni.<sup>22</sup> Argentina has been working on the Condor missile with Egypt and Iraq. Brazil is investing in the Sonda IV, and Pakistan has its Haft.<sup>23</sup>

These may be land attack missiles, but the ability to direct other variants to sea, as was done with the Silkworm, can't be too far behind if these nations so choose. Couple the general market availability of space-based surveillance systems with ballistic or cruise missile delivery systems, and we have a quantum leap in the extension of the maritime battlefield from nations that may not otherwise be rated as maritime powers. We cannot overlook the possibility of chemical warheads for these missiles. Some twenty countries may be producing chemical weapons today.<sup>24</sup> But it's more likely that they would be used in land warfare and would have less utility at sea, except against amphibious operations. Neither can we overlook the proliferation of nuclear weapons over the next decade. Five or six nations now have nuclear weapons capabilities and roughly another twenty-five or so may be nearing that capability.<sup>25</sup> Their use at sea may be less likely than on land, but they complicate the equations among belligerents

and neutrals alike. If that's not enough, let's further exacerbate the problem by eventually including sophisticated deep-water mines.

That will be enough gloom and doom for now. But these are no longer Buck Rogers cartoons. They will be near- to mid-term realities. Nearly all these weapons will extend the theater and scale of operations. If nations use them from the onset of hostilities, then the responses will not be graduated either. Limited war at sea will have once more become nearly unlimited. Along the intermediate levels of the scale of warfare, it's going to require more than a few NATO frigates, and a set of rules of engagement from the Security Council of the United Nations for the neutrals to stay competitive in the contest for freedom of the seas.

### The Challenge for International Law

It would seem that as the proliferation of nuclear and chemical weapons occurs, the "haves" will generally be deterred from their use against each other just as the superpowers have been. The "have-nots" will need alliances with the "haves", or the protection of a much more binding moral suasion than has been operative in the past. The more likely circumstance, in any case, is the use of the more sophisticated conventional weaponry. The U.S. Commission on Integrated Long-Term Strategy framed the military challenge thusly:

"The much greater precision, range, and destructiveness of weapons could extend war across a much wider geographic area, make war much more rapid and intense, and require entirely new modes of operation."<sup>26</sup>

The challenge for international law will be to keep abreast of technological change. Is that a question of "writing" new law, or of developing new standards of behavior which are accepted as the norms for nations engaged in combat at sea?

From the point of view of the practitioner of the operational art at sea, it would seem that we could have more effective law, that is, greater adherence to the international standards in a rapidly changing military-technological environment if we stuck to the basics, to the principles. The standards of military necessity, proportionality, and humanity can be applied across the entire spectrum of warfare from "lower intensity conflict" to nuclear warfare. The objective should be greater compliance with international law at sea, not a more abundant and more restrictive law of naval warfare to be set aside and ignored at the firing of the first round. The rate of change in technology and weapons, and the rate of proliferation could be too much to keep up with if we are looking for a new set of specific prohibitions each step of the way. The more promising field could be the persuasion of all, or nearly all of the nations of the world to abide by the rules we already have, and to apply them generously.

Of this we can be sure: the future holds the very likely prospect of economic warfare at sea; the hostilities will occur further from the shores of the belligerents and will be more intense and destructive. The extent to which neutral commerce will suffer depends on how effective the non-belligerents are in convincing the combatants, either through pacific means or through military coercion, to abide by the commonly accepted international law of the sea.

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### Notes

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1. George K. Walker, *The Sources of International Law and the Restatement (Third), Foreign Relations Law of the United States*, *Naval Law Review*, 7-13; (Winter 1988); Francis V. Russo, Jr., *Neutrality at Sea in Transition: State Practice in the Gulf War as Emerging International Customary Law*, 19 *Ocean Development and International Law* 381-383 (1980); Daniel P. O'Connell, 1 *The International Law of the Sea*, 33-47 (1982). For an interesting approach to *A New Genre in the Study of International Law*, see *International Incidents: The Law That Counts in World Politics*, 3-24, 263-269 (W. Michael Reisman et al. eds., 1988).
2. Daniel P. O'Connell, *The Influence of Law on Sea Power* 86 (1975).
3. Yuan Li Wu, *Economic Warfare* 2-10 (1952). See also, James P. O'Leary, *Economic Warfare and Strategic Economics*, 5 *Comparative Strategy*, 179 (1985).
4. Daniel P. O'Connell, 2 *The International Law of the Sea*. 1096 (1982).
5. David Segal, *The Iran-Iraq War: A Military Analysis*, *Foreign Affairs* 955 (Summer 1988).
6. Ross Leckow, *The Iran-Iraq Conflict in the Gulf: The Law of War Zones*, *International and Comparative Law Quarterly* 638-644 (July 1988); Ronald O'Rourke, *The Tanker War*, *U.S. Naval Inst. Proc.* 30-34 (May 1988).
7. Ross Leckow, *supra* note 6, at 960.
8. Daniel P. O'Connell, *supra* note 4, at 1131-37.
9. Michael Vlahos, *The Stark Report*, *U.S. Nav. Inst. Proc.*, 4-67 (May 1988), Norman Friedman, *The Vincennes Incident*, *U.S. Nav. Inst. Proc.*, 72-79 (May 1988).
10. Bud Langston, et al, *The Air View: Operation Praying Mantis*, *U.S. Nav. Inst. Proc.*, 54-65 (May 1989); James B. Perkins III, *The Surface View: Operation Praying Mantis*, *U.S. Nav. Inst. Proc.*, 66-70 (May 1989).
11. Cyrus R. Vance & Elliot L. Richardson, *Put the U.N. Into the Persian Gulf*, *N.Y. Times*, October 20, 1987, at A35: 2-6.
12. Elliot L. Richardson, *Conference Report: The Persian/Arabian Gulf Tanker War: International Law or International Chaos*, 19 *Ocean Development and International Law* 312 (1988).
13. *Id.*, at 311-12.
14. Bud Langston, *supra* note 10, at 54-65; and Perkins *supra* note 10, at 66-70. As described by Captain Langston at 56, "Positive identification of Iranian naval and air forces was crucial to the operation as allied and Soviet surface forces were in the area. Omani and United Arab Emirates patrol boats were also operating in the southern Persian Gulf, as well as Omani, United Arab Emirates, Iraq, and Saudi Arabian aircraft".
15. James B. Perkins III, *supra* note 10, at 69.
16. Daniel P. O'Connell, *supra* note 4, at 1099.
17. See *supra* note 4.
18. David Segal, *supra* note 5, at 960.
19. Bud Langston, *supra* note 10, at 58-59. The limit of visibility was reported as 3 to 5 miles.
20. Daniel P. O'Connell, *supra* note 2, at 129.
21. Jane's Fighting Ships, 1989-90, at 91, 253 Richard Sharpe, ed., (1989).
22. Robert H. Morris, *Evolving World Situation* ROA National Security Report 2 (November 1989).
23. Les Aspin, *Missiles, Nukes, Chemicals Threaten Peace*, ROA National Security Report 13 (November 1989). See also *The Global Proliferation of Ballistic Missiles*, *Jane's Defense Weekly*, 1384-85 (December 23, 1989).
24. Robert H. Morris, *supra* note 22, at 1.
25. *Id.*
26. U.S. Commission on Integrated Long-Term Strategy, *Discriminate Deterrence*, Commission Report, 8 (January 1988).