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Robert C. Rubel

KING'S College LONDON
University of London

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Key Points

- The basic purpose of navies today is to protect the global economic system, where their contribution is crucial.

- This is less the direct defence of shipping against naval threats but the protection of the conditions for trade against irregular threats.

- Increasingly navies are building and developing not against each other but with each other, but the risk of competition remains.

Professor Robert C. Rubel is Dean of the Centre for Naval Warfare Studies at the US Naval War College, Newport.

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Navies and Economic Prosperity: the New Logic of Sea Power

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Since wars begin in the minds of men, it is in the minds of men that the defenses of peace must be constructed.

Preamble to the UNESCO Constitution

Because navies are expensive, they must, from time to time, make an argument for why their country should invest its public resources in maintaining one.[1] There are a number of different justifications that have been used over the course of history, including guarding the nation's coast from the depredations of raiders or invaders, moving its army to a foreign shore, and simply prestige; announcing to the world via the possession of a fleet that the nation is a significant power. It is also routinely argued that a navy is needed to secure the nation's economic interests by protecting its commercial shipping. This argument has been leveraged by the U.S. Navy in conjunction with the rollout of its current maritime strategy and is being employed by the navies of Canada and the United Kingdom as they struggle to secure sufficient public investment to keep themselves viable. Admiral Gary Roughead, the former US Navy Chief of Naval Operations said: 'So much of what moves on the world today in trade and commerce and the resources that flow moves on the oceans. About 90 per cent of everything that moves, moves on the oceans. So how we protect the sea lanes, how confident we are that goods can move from one point to the other and not be interfered with is extremely important.'[2] The notion that navies exist to protect merchant shipping has been around a long time and has had, up to the end of the Cold

War, a substantial element of truth to it. However times have changed and the world strategic environment has evolved to the point that the rug has been pulled out from under this argument. Yet navies persist in using it because they have not delved deeply enough into the new connection between sea power and economic activity to articulate a new argument. Thus, when admirals roll out the traditional utility argument civilians do not find it compelling, although they cannot say exactly why. This article is an attempt to articulate the relationship between navies and the economic prospects of their parent nations that actually exists in today's world. If this relationship is properly understood, perhaps more compelling utility arguments can be made by navies.

In the last decade of the nineteenth century, the American naval theorist Alfred Thayer Mahan broke new ground in military literature with his book *The Influence of Sea Power on History 1660-1783.* His principal intellectual advance was to describe the connection between war, sea power and the economic prospects of a nation.[3] By doing so, Mahan added an outer layer of analysis to the Prussian military theorist Carl Von Clausewitz's' epic exploration of war's essence, *On War.* It was not enough, Mahan argued, to understand war solely by examining the clash of armies. One had to also understand that armies are underwritten by the wealth of their parent country, and that wealth is in turn enhanced by trade, which by the time Napoleon ruled France, had an essential maritime commerce component. The flow or constriction of maritime commerce was, in turn, governed by the success or failure of navies.

Mahan went on to establish a sort of logical syllogism that described the relationship between a nation's economic prospects, its maritime trade and its navy. He described a virtuous cycle in which a nation's propensity for economic activity leads naturally to the carrying of goods on the sea, both coastwise and across the ocean. The need to protect this trade spawns a navy. The navy, by protecting trade, enhances it and thereby the wealth of the

nation grows. Sir Julian Corbett, the distinguished British interpreter of sea power, based his theories on the same idea, if conversely applied:

> Finance is scarcely less important. When other things are equal, it is the longer purse that wins. It has even many times redressed an unfavourable balance of armed force and given victory to the physically weaker Power. Anything, therefore, which we are able to achieve towards crippling our enemy's finance is a direct step to his overthrow, and the most effective means we can employ to this end against a maritime State is to deny him the resources of seaborne trade.[4]

Theodore Roosevelt read Mahan's book, became a true believer in sea power and pushed for a strong American Navy. He dispatched the Great White Fleet on a world tour to announce America's arrival on the world stage. Mahan's book was also an international best seller and he wrote many articles for popular magazines explaining his theories. Thus was welded into the American psyche the idea that its navy sprung from and was formed to protect its seaborne commerce. The subsequent experience of two world wars, with their respective Battles of the Atlantic against commerce-raiding German U-boats only reinforced this notion.

After World War II the American merchant marine dwindled, causing considerable angst among US navalists, but the US Navy, despite some ups and downs, remained by far the strongest navy in the world. American prosperity, coupled with a lack of serious naval threat for over a half century, pushed Mahan's syllogism to the back of the national consciousness. However, from time to time, when naval affairs were discussed, the syllogism was rolled out as a kind of shibboleth - sacred and unchallenged - even though the reality on the seas had changed fundamentally. By the end of the Cold War, the US was almost bereft of a merchant marine, was incredibly prosperous and possessed a navy whose size appeared to be all out of proportion to any conceivable threat to American commerce. There was, apparently, some problem with Mahan's syllogism. And yet, at the end of the

first decade of the twenty-first century, naval officers and naval scholars seem to persist in embracing it in spite of clear evidence it does not hold.

To understand why the relationship between war, economic health, maritime commerce and navies has changed, we need to go back to the early years of the twentieth century, shortly after Mahan's book had become a world best seller. It was an era of unprecedented world trade and stability. The industrial revolution had transformed much of the world and the empires of the colonial powers were at their zeniths. World trade flowed virtually unmolested thanks to the Royal Navy's unchallenged command of the seas. Although the old Concert of Europe had broken down, peace still reigned among the principal nations on the Continent. The world was in the process of linking itself together as a unified global economic system based on free trade.[5] It was, though, a multi-polar world consisting of a number of great powers, each of whom had an ocean-going navy. Despite the peaceful concord of Europe, nations felt their merchant marines needed protection. Thus despite the lack of war, Mahan's syllogism held.

The First World War brought the whole edifice down. Navies contended for command of the seas; commerce raiding disrupted trade, and the world system crumbled into hostile blocs. The Second World War simply reinforced this condition, which wore on into the Cold War. However, after 1945, the United States put together a new system of alliances and economic structures to avoid another Great Depression and to inoculate as much of the world as possible against the inroads of communism. It was able to do this in part because of the complete command of the sea it had won by virtue of defeating the Axis navies, and the lack of a significant navy by the Soviet Union. Here we see a foundational notion of the new syllogism: command of the sea, as an indicator of overall national power, allows a nation to set the rules of the international order. In the case of the United States, it permitted the establishment of a liberal capitalist trading order.[6]

The new 'Free World' started to put back together the global system of commerce and security, but it could not be complete in the face of the alternate economic system of the communist bloc. Moreover, in this era, the US Navy found itself forced to adopt a new focus - nuclear warfare. In combination with requirements to support land wars in Korea and then Vietnam, the absence of a compelling Soviet threat to its sea commerce and a withered merchant marine, the Mahanian syllogism invisibly fell apart. The US Navy would stay large for reasons other than protection of American shipping, notwithstanding the requirement to protect military shipping to reinforce Germany in case of a Soviet invasion.

The fall of the Soviet Union precipitated the final phase of the reconstruction of the global trade and security system that The First World War destroyed. China, even though possessing a communist government in name, adopted capitalist economic policies and became the world's factory. The process of globalization reordered the economic geography of the world, increasing economic interdependency and producing areas of specialization. Today, East Asia, including China, Taiwan, South Korea and Japan conduct a large part of the world's manufacturing[7] while the bulk of its oil reserves reside in the Persian Gulf. Many key strategic ores are found in only one or two places. Consumerism in North America and Europe generates consumption that creates the demand for Mideast oil and Asian manufactured goods. A globe-girdling system of financial institutions, laws and agreements as well as the emergence of the internet and global media has generated a highly integrated and intertwined economic system. Commercial shipping has similarly transformed, and today ships may be owned by multi-national companies, sail under a flag of convenience, be operated by a diverse international crew and carry a cargo that might change hands several times during its transit.

This economic geography, both ashore and at sea has ripped apart Mahan's syllogism. Merchant shipping is not so closely aligned with a national flag any more, and because virtually every functioning nation state has a stake in the effective operation of the global economic system, commercial shipping

moves unmolested and without threat from any navy. But navies still exist, and the leaders of these navies must justify the expense of building and operating them to their nations. Reflexively, they reach back for Mahan's syllogism to try and link their country's economic prospects to investment in its navy. It does not work because Mahan's syllogism no longer holds.

If Mahan's syllogism linking the existence of a nation's economic wellbeing to the possession of a capable navy is no longer valid, is there one to replace it? Fortunately for naval officers, the answer is yes, although the new logic is not as straightforward as its ancestor.

The first step in constructing the new syllogism is to understand and accept the world in system terms. The difficulty for many naval officers as well as for their civilian masters is that such acceptance implies a certain diminution of the state's sovereignty; a traditional bedrock of naval thinking. However, it is simply a brute fact that most developed nations are no longer economically, if not politically, self-sufficient. This is an uncomfortable notion, but one that is at the heart of the new logic. Acceptance of it opens one's eyes to new patterns and possibilities for naval operations. It also opens the door for a new and effective argument for national investment in navies. In fact, the US Navy's 2007 maritime strategy 'A Cooperative Strategy for Twenty-First Century Sea Power', (hereafter referred to as CS21) is explicitly based on it.

The approach to strategy embodied in CS21 reflects the new geopolitical realities that have been generated by the process of globalization. As Ellen Frost says, 'Coming to grips with this force calls for substantially transforming the way that U.S. leaders think about the world and adjusting their policy instruments accordingly.'[8] Traditional military strategies are contingent; that is, they are meant to be invoked when and if an adversary does something such as invade an ally. Day-to-day, they are on the shelf, although the forces that would execute them may conduct peacetime exercises for readiness or deterrent value. After the Cold War, the US Navy adopted, in its white paper entitled '…From the Sea', what might be termed a doctrinal strategy; not

specifying who, where or why it would fight, only how. CS21, by contrast, is a systemic strategy, crafted to be executed continuously in time of peace in order to defend the global system.[9]

Understanding the modern linkage between navies and the effective functioning of the global economic system requires us to develop a truly global viewpoint. This is not particularly straightforward because geographically, it is all too easy to think of the world as a collection of different regions. However, to use a trite phrase, the world is more than the sum of its parts, at least for the purpose of understanding how all the parts relate to one another. What some key theorists have done is establish a functional schematic of the world. Halford Mackinder, in his seminal work on geopolitics showed the world as a kind of Venn diagram in which the key geographic land masses were depicted as circles whose size corresponded to both area and population.[10] Underpinning this depiction was the notion that population and land area indicated industrial potential, which in turn portended the military and naval power the land mass could produce if it was brought under a single government. More recently, Thomas Barnett described the world in terms of a 'functioning core' of nations that were tied together by economic relationships as well as the networks facilitated by the internet. 'The Non-Integrating Gap' consists, in his view, of those countries that have not, for various reasons, become part of the functioning core, including most of Africa, the Middle East and parts of Latin America.[11] In each case, the writer looked for some basis upon which to describe the relationships that linked human civilizations on the various continents together so that a comprehensible whole could be discerned. However, description is not enough; the depiction must have utility in the formation of policy and strategy.

Systems' thinking recognizes the interdependency of the various elements that contribute to a system. If we understand and accept that the world has knitted itself together into a global system of commerce (and the necessary forms of collective security that accompany commerce), then we are prepared to recognize and acknowledge that a wide range of factors impinge upon and

even govern the effectiveness and efficiency of each subsystem. Using this logic we can easily understand not only that resource extraction, manufacturing, consumption and transportation are inextricably integrated elements of the world economy, but also that the protection of one to the exclusion of the others is not rational. The system as a whole must be protected. While it is true that no single military service - or nation - has the capability to render holistic systemic protection it is also true that the effects of each one's operations ripple throughout the system as a whole, either enhancing or diminishing its overall security.

For navies, then, it is not sufficient to think of their purpose only in terms of protecting shipping. Certainly, shipping must be protected, but if there is nothing to put in those ships, their transits, safe or not, are meaningless. Therefore, it is as important that manufacturing nodes and resource nodes be similarly protected and that efforts be made to protect and enhance the nations and societies that constitute these nodes, not to mention the nations and societies that consume their output. Thus we have an end-to-end systemic-view of what we might call the 'mission space' of navies. The better the system works - the more secure it is - the better the world's prospects for economic prosperity. It does not work for just one nation. Figure 1 below offers a simplistic schematic of the system. For the purposes of this discussion, the important point is that the flow of finance, goods, information, etc. must be sustained across the system. The flow can be interrupted by disrupting shipping (and air travel and the internet), but commercial shipping, at least, is not significantly threatened in today's world. On the other hand, war among major powers, instability in resource areas and major terrorist attacks in consumption areas all could significantly disrupt the flow, with disastrous results for the world economy as well as international peace. Given the dependency of most pension plans on the growth in the value of securities, it is not inaccurate to say that the well-being of much of the world's greying population is dependent upon the effective functioning of navies.

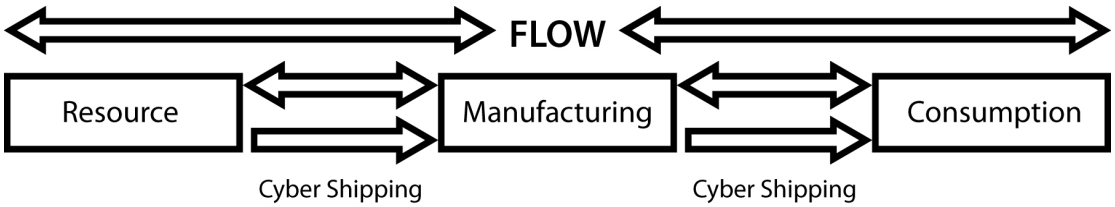

Figure 1

Having established the systemic context for the new syllogism, we can engage in some reductionism to sort out some individual factors that can help us identify particular naval capabilities that are needed, their magnitude and even their mode of application (strategy). In doing so, we will focus, naturally, on threats to the system, proceeding from the most to the least dire.

As intimated previously, war among major powers is potentially the most disruptive threat to the global system. When one considers the almost eighty-year global system 'dark age' between the outbreak of The First World War and the end of the Cold War, the impact of major power war becomes obvious. It would be arrogant and facile to suggest that navies themselves can prevent such wars, but it should be noted that a naval arms race between Great Britain and Germany played no small part in the chain of events leading to 1914 and the perceived vulnerability of the US Fleet in Hawaii was a factor in the Japanese decision to attack in 1941. These two themes, naval arms races and perceived naval vulnerability, constitute factors that have continuing relevance in today's systemic world.

Let us start with naval arms races. We must admit that nations build navies for a range of reasons beyond protection of merchant shipping. These may include the desire to protect a vulnerable coast line, deter depredations by other powers and even generate prestige. There is perhaps, one element of Mahan's syllogism that continues to be true: at a certain level of economic activity and wealth, nations start building navies. A capable, ocean-going navy

is a sign that a nation has 'arrived' as a major power. Whether such navy building is a herald of future war or is a politically neutral phenomenon is not clear, although the historical record is cause for concern. Today, China, Japan, India, Brazil and other nations are building navies. They each have their reasons, but the prospects that such building programmes will lead to suspicion, alarm, fear and ultimately war may depend very much on how the current leading navies and their parent nations proceed.

An important reason the world system has been able to stitch itself back together after the world wars is the military superiority of the United States. A liberal democratic trading nation, it has coupled this superiority with free trade policies to stimulate economic growth. Capital, goods and people can flow freely around the globe, generating systemic behaviour. A key element of American military superiority is command of the seas, a term denoting the inability of any other navy to impose a strategic defeat on the US Navy on the high seas. It is this command, like that achieved by the Royal Navy in the nineteenth century, which helped create the necessary conditions for system formation. When it is lost, as it was in 1914 and 1941, the world fragments and falls into war.

The challenge becomes how to use command of the sea to manage or influence the emergence of other navies such that true naval arms races do not occur. The right way to do this is not completely clear but there appear to be several sure-fire losing strategies. The first is for the US to start the arms race itself by reflexively viewing the emergence of the Chinese Navy or others as a threat. Policies and patterns of building and deployment based on alarm and fear will generate reciprocal responses in China and elsewhere. This is why CS21 does not mention China or any other nation by name, something often criticized by those with an alarmist bent. Among the ways the US Navy can stimulate Chinese alarm is to openly consider interdiction of their seaborne commerce in exercises, war games or articles. Not only would this strengthen the hand of Chinese alarmists, but commerce interdiction would probably be infeasible on a number of counts anyway. Another good way to

invoke this kind of reciprocal security dilemma is to link sea control and power projection. After the Cold War, the US Navy focused so narrowly on power projection that it and some of its allied navies forgot how to talk about sea control.[12] While progress has been made in this area, there is still a sense in the doctrine that US forces will use land strikes to neutralize shore based anti-access systems with sea control being an exercise in access generation that is prerequisite to projecting power ashore.[13] One can imagine the effect of such talk has on a nation like China that has suffered humiliation and exploitation from the sea at the hands of western nations. Already, the Chinese are reacting to the most recent US concept of this ilk, AirSea Battle: 'If the U.S. military develops Air-Sea Battle to deal with the [People's Liberation Army], the PLA will be forced to develop anti-Air-Sea Battle.'[14]

A second way to increase the odds that navy building will lead to war is for the leading navies to allow vulnerabilities to emerge. The USN did this in two ways during the 1930's and up to 1941. First, it was slow to recognize and accept that the bomb-carrying aircraft had replaced the major calibre gun as the dominant naval weapon. Although war games at the Naval War College and demonstrations by Billy Mitchell provided clear indicators, it took the December 1941 disasters of Pearl Harbor and the sinking of the HMS *Repulse* and *Prince of Wales* to force the new reality on the admirals. Today, the new reality is that the anti-ship missile is the arbiter of what floats and what does not. This is a condition that has existed since the early 1970s but has not been compellingly revealed due to the lack of an all-out naval battle, just as there was no all-out naval battle between 1922 and 1941 to reveal the bomb's superiority. Vulnerability can also be generated by concentration. In 1941 the bulk of the US fleet was concentrated at Pearl Harbor, leading Admiral Yamamoto to think that a single knock-out blow was possible. Although today the US Navy is strategically dispersed around the world, its principal combat power is concentrated into eleven aircraft carriers. Taking several of these out would seriously compromise the strategic capabilities of the USN, not to mention the potential adverse effects of derailing US policy as happened via the loss of eighteen Special Forces soldiers in Somalia, or

conversely stimulating escalation, possibly to the nuclear level. Moreover, a hit on a nuclear carrier that killed hundreds, if not thousands of US sailors in a single blow might easily generate national outrage and serve to escalate the conflict far above initial intentions. In naval warfare, history has shown that the tactical offense has most often trumped the tactical defence, and thinking that aircraft carriers can be defended against the array of existing and potential anti-ship missiles is not much different than the outlook of battleship admirals in the fall of 1941.[15]

The combination of vulnerability issues suggests that the US Navy and any allied or cooperating navies that seek to constitute a combat credible force in ocean zones threatened by anti-ship missiles will have to disaggregate their power into a dispersed grid of submarines, destroyers and unmanned vehicles, themselves armed with highly lethal anti-ship missiles. Their purpose should be clearly articulated as defending the system by deterring aggression via the sea by means of defeating - at sea - any attempt to do so. Even the best anti-ship missile cannot hit what cannot be found. By disaggregating naval combat power and equipping it to exert sea control - at sea - we thereby eliminate both forms of naval vulnerability that contribute to naval arms races, and the deterioration of deterrence.

There is one other vulnerability issue that must be considered, and that is positioning. If caught out of position when a crisis erupts, the reactive movements of naval forces can catalyse rather than deter military action. In 1982, during the crisis leading up to the Falklands War, fears that the British were gathering up naval forces to send south helped put the Argentine Junta in a now-or-never state of mind, which precipitated their invasion and the war.[16] If catalysis is to be avoided, naval forces must maintain a persistent presence in such areas where deterrence is necessary. This is why CS21 prescribes concentrated, credible combat forces be stationed forward in East Asia and the Persian Gulf. The Navy's inventory of ships, aircraft and other systems must be sufficiently large such that this presence can be maintained indefinitely without 'using up' ships and sailors at an unsustainable rate.

If command of the seas is achieved and maintained wisely by not provoking alarm and not allowing naval vulnerabilities to occur, the seas can constitute a massive geopolitical shock absorber, preventing conflicts in one area of the world from spilling over into others, mainly by keeping hostile armies from moving by sea, and allowing one's own to do so. Even though this condition holds today as a function of American command of the sea, there has emerged, since the attacks on the World Trade Center in New York, the prospect of terrorists and their weapons being smuggled by sea to the shores of America, Europe, China, Japan and other developed countries. Given the disruptive potential of terrorist attacks, it is reasonable to regard them as only a step down from major power war as a threat to the system. Although the attacks of 9/11 were perpetrated by the radical Islamic organization al Qaeda, in the future such strikes might be staged by any number of groups. Although neutralization of such organizations by intelligence or law enforcement agencies is the preferred method, the lack of success to date in doing so for narco-traffickers and other criminal enterprises leaves us to consider at-sea interdiction as a necessary measure.

The seas, of course, are huge, and at any moment they are dotted with tens of thousands of ships. There is not now nor has there ever been a navy of sufficient size to hermetically seal off the seas to smugglers. The only way to make the seas a barrier to terrorists is to have every costal nation effectively guard its own waters and establish good teamwork between its navy, intelligence service, and law enforcement agencies. Some nations do but many do not. Thus CS21 calls for building capacity in those developing nations whose navies or coast guards are embryonic.

The mission of capacity building requires a very different kind of naval force than the one needed to prevent major power war. The main 'weapon system' of such a force is the sailors and other personnel that train, educate, and influence those in developing countries that will become sailors. The sheer number of countries needing such assistance suggests these missions be conducted from relatively inexpensive ships that can be procured in some

numbers. In addition to actual naval forces deployed for capacity building purposes, the navies of developed nations employ their shore training and education infrastructures. The importance of naval academies and war colleges in building not only capacity but relationships cannot be overstated.

Beyond capacity building, making the seas a barrier to terrorists requires information about who is at sea, what is in the containers and holds, and where they are. Not only are new forms of surveillance needed, but also intensive information sharing so that two and two can be put together to reveal suspicious activity. To manage this, the US Navy is developing a global network of maritime operations centres that will develop regional pictures that will be shared globally. This, in turn requires an international effort to develop trust and confidence so that information flows freely.

If an adequate degree of maritime security can be achieved, the seas will constitute a geopolitical shock absorber in another way. In the wake of 9/11 the United States had no equivalent of the First Lord of the Admiralty, Admiral Lord St Vincent who supposedly advised a jittery parliament in 1801 'I do not say my lords that the French will not come, I say only that they will not come by sea.' Without the assurance of the seas as a barrier to further attack, it was as if New York City was connected to Kabul and Baghdad by a land bridge. The Bush Administration was spooked by the prospect of a WMD attack and rather stampeded itself into two simultaneous Eurasian land wars that got the US mired down and over-extended. The comfort of insulating oceans can provide, among other things, a certain poise to the deliberations of the National Security Council and time for cooling off and reflection before committing the nation to war. Moreover, in the wake of the pull-out from Iraq and an increasingly rapid drawdown in Afghanistan, both the current and former US Chiefs of Naval Operations have advanced the notion of an 'offshore option' for anchoring forward US military capabilities in the future.[17] This would increase the proportionate contribution of naval forces to the US effort to maintain global stability.

The threat of terrorism emanates principally from an area of a world that has been variously referred to as the 'arc of instability' and Barnett's Non-Integrating Gap. It encompasses much of Africa and the Middle East as well as parts of Southeast Asia. It is where most failed states exist but also where much of the natural resources necessary for the world economy are found. Thus the nations that constitute the global economic system can ill afford a hands-off strategy of containment, hoping to seal off the area against the spread of terrorism until it heals itself. Therapeutic incisions have been and will continue to be necessary at various times and places.

Because of the undeveloped nature of this area of the world, along with the fact that most of its inhabitants live within several hundred miles of the coast, naval force projection capability from a sea base will be necessary. The early phases of the Afghanistan operations were of this nature and we can confidently expect that if and when the world's developed nations reach a consensus about going into Somalia to cure the piracy problem, it will be a sea-based expeditionary operation. Thus, protection of resource areas will require that some number of navies possess substantial sea-based expeditionary force capability, preferably of a kind that can integrate multi-national contributions easily. Rendering disaster relief, as was done in the tsunami relief effort in 2004, the Haiti earthquake and the Japan tsunami, is also an important form of sea-based force projection that mitigates economic damage to the system. It is likely that future sea-based expeditionary operations will be international, and so that capability must be conceptualized and practiced.

The mere presence of naval forces in areas of the world that are the source of resources, notably oil, seems to have a beneficial economic effect. Both routine presence of naval forces and their responses in crises were shown to have a substantial economic benefit in a 1997 study by the US Naval Postgraduate School.[18] It found that the initial naval response to the Iraqi invasion of Kuwait is likely to have increased global GDP by over $86 billion.[19]

Perhaps the least dire threat to the global system is piracy; albeit one that is currently seizing the headlines. Somali pirates, a manifestation of a failed state in the Non-Integrating Gap, hijack merchants and demand ransom for the crew and ship. The actual chance of a particular merchant being hijacked are less than one in nine hundred,[20] and shipping companies seem more inclined to pay the ransom than install armed guards aboard their ships. However, the publicity has galvanized nations and their naves to take action. A previous bout of piracy in the Straits of Malacca was cured by the joint action of local navies. The Somalia/Gulf of Aden situation is more problematic since there is no effective governmental authority ashore. However, the emerging world response to it reveals some important facets of an emerging global naval infrastructure that supports the global system of commerce and security.

In Mahan's day, the movement of major naval forces was noted by many countries, sometimes with alarm, as it might presage invasion, or at least a round of coercive diplomacy. In fact, when the PRC announced it was dispatching a small squadron to the Gulf of Aden, there was alarm in some quarters in the US and other countries that this was a sign of an expansionist China. The Chinese themselves announced that their ships would operate independently in the Gulf of Aden to protect their own merchants. However, after several weeks on station two things happened: the alarm about their movement died off and the Chinese commander suggested a cooperative zone defence in order to make most efficient use of the international naval forces on station. Moreover, not only the Chinese are there, but the Russians, NATO, EU (different task force), the Japanese, Koreans, Singaporeans and even the 'rogue' nation of Iran. Everybody is cooperating—why, how, and what does it mean?

To start with, we must acknowledge the uniqueness of the Gulf of Aden situation. Somalia is a failed state that possesses neither resources nor location that would incite major power rivalry over influence ashore there. There is a universal confluence of interests centred on the protection of

shipping. The unusual absence of major power competition allows naval operations to follow their natural course and provide a unique opportunity for us to see the security side of the global system in action.

The Chinese, Russians, Iranians, and other naval forces have become virtually invisible in the Gulf of Aden because they have fallen in on an existing framework and infrastructure of sea power that girdles the globe. This infrastructure (perhaps more accurately the maritime security subsystem of the global economic system) consists of both physical and intangible elements. On the physical side, there is the US Navy's world-wide logistics system. It operates 24/7/365 and is composed of a web of bases, husbanding (victuals) contracts and replenishment ships, augmented by the supply ships of the Royal Navy, Japan, and other allies. This system can support international naval operations anywhere in the world. In addition, there are GPS and communication satellites as well as the ubiquitous internet. Among the intangibles are the UN Law of the Sea that provides a clear framework for who can do what in whose waters, any number of other international agreements governing a range of maritime issues, and a world conditioned to see US Navy and allied ships cruising the littorals of Eurasia. Perhaps another intangible element is CS21 itself which casts the United States and its navy in a defensive posture (defence of the global system). This makes it easier politically for other nations to deploy their ships on a cooperative mission and make use of the USN's logistics system. It also appears that the navies of the world are getting comfortable with looser coordination arrangements. Before the internet, strict communications, protocols, and structured command and control schemes were necessary. With the internet, everyone can talk more extensively and in new ways such that restrictive command arrangements are not so necessary. This in turn obviates the need for formal agreements prior to conducting cooperative operations. With the political and technical barriers to entry low, nations become more willing to send their navies on cooperative ventures.

Previously we discussed the seas as geopolitical shock absorbers, both to limit other nations' options for aggression and to provide our own government time for reflection and preserving the option of doing nothing. In the cooperative naval operations off Somalia, we see another aspect of the phenomenon emerging in a very positive way. It turns out that ships from the Chinese, Japanese, and South Korean navies have taken to operating together in the Gulf of Aden. Strange bed fellows indeed, but as both the Japanese navy's operations chief and a Chinese maritime scholar have said to the author on different occasions, cooperating on easier missions can build trust and confidence that will provide a basis for achieving resolution of more difficult maritime issues between the nations. This is indeed geopolitical shock absorbing of the most congenial kind.

We have now arrived at a point where we can put all of the elements of modern naval endeavour together in a new syllogism. Navies protect their nations' economic prospects by operating cooperatively to defend all elements of the global system of commerce and security. Their necessary functions range from averting naval arms races to rendering disaster relief to, yes, protecting shipping. But it is not an every navy for itself process; the more cooperation, the better. It may even turn out that sustained and habitual international naval cooperation will someday make the concept of command of the sea irrelevant. Until then, the US Navy must exert careful stewardship over its command of the sea, keep its global logistics system robust and develop the capacity to catalyse a global maritime security partnership on a broad front by being in a lot of places at the same time. Other navies must also look at the world in systems terms if they are to most effectively develop utility arguments and determine how to most effectively target their limited resources.

If one accepts the arguments that underpin the new syllogism of how navies support economic prosperity, then reasons for optimism become clear. Naval building programmes in China, India and elsewhere do not have to lead to war as has happened in the past in Europe; there is a reasonable prospect that

the seas can be denied to terrorists; the seas can be used to bring the Non-Integrating Gap into the system; and an emerging pattern of naval cooperation can not only secure the seas but reduce the likelihood of conflict and war.

None of this will happen if nations let their navies decay. The unique thing about navies is that their optimum utility is in time of peace. When sea power is hitting on all cylinders, it is invisible. An investment in sea power is most appropriate and effective at a point when threats are not apparent. In Mahan's day the syllogism of sea power focused on the sovereign interests of individual nations and its application led eventually to war. Today we see the world as a system, with a sea power logic that is expressed in systems terms. Its application, that is, investment in navies structured along systemic lines, promises a massive return in the form of an extended and improving peace and - despite the current global economic woes - prosperity.

Endnotes

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[2] ADM Gary Roughead, podcast 29 February 2009, http://www.navy.mil/media/audio/cno/transcripts/PODCAST_SCRIPT_February_29_2008.pdf
[3] Alfred Thayer Mahan, *The Influence of Seapower on History 1660-1783,* (Boston: Little, Brown and Company, 1890) Chapter One sets forth Mahan's basic logic. However it should be noted that he subsequently recognized that nations without large shipping interests may also build navies. See A.T. Mahan, *Naval Strategy*, (Boston, Little, Brown and Company, 1918) pp 445-447.
[4] Sir Julian Corbett, *Some Principles of Maritime Strategy*, (London: Longmans, Green and Co. 1911), p. 99.
[5] Niall Ferguson, *The War of the World*, (New York: The Penguin Press, 2006). Chapters 1 and 2 delineate the state of the pre-WWI world, including its increasing economic integration. Then check the first full paragraph on page 73 to see his analysis of the effect on globalization of war among major powers.
[6] George Modelski and William Thompson, *Seapower in Global Politics 1494-1993*, (Seattle, WA: University of Washington Press, 1988), 16-17.
[7] But manufacturing itself is extensively parsed on a global scale with components and sub-components manufacturing distributed throughout the world in an intricate ballet of shipping and scheduling for final assembly. See Stephen Carmel, 'Globalization, Security and Economic Well-Being', Remarks delivered to the 20th International Seapower Symposium, 19 October, 2011, Naval War College, Newport, RI., available at http://www.maersklinelimited.com/News/announcements/Steve-Carmel-speech.pdf

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[11] Thomas P. Barnett, *The Pentagon's New Map,* (New York: G.P. Putnam and Sons, 2004),p.4
[12] Robert C. Rubel, 'Talking About Sea Control', US Naval War College *Review,* Autumn 2010, p. 38-47, http://www.usnwc.edu/Publications/Naval-War-College-Review/2010---Autumn.aspx
[13] See for example, Joint Publication 3-0, *Operations*, 17 September 2006 with Change 2 of 22 March 2010, p. V-9. http://www.dtic.mil/doctrine/new_pubs/jointpub_operations.htm See also General Norton A. Schwartz and Admiral Jonathan W. Greenert, 'AirSea Battle', The American Interest, February 20th, 2012. Note especially the 'Attack in Depth' element of the concept. Available on line at: http://www.the-american-interest.com/article.cfm?piece=1212
[14] Col. Gaoyue Fan, PLA, quoted in 'Real Tensions Over A Theoretical War U.S. model for a future 'Air-Sea Battle' stirs ire in China and inside Pentagon,' by Greg Jaffe, *Washington Post*, 2 August, 2012.
[15] The November 1941 Army/Navy football game programme pamphlet had a picture of USS Arizona plowing through the waves with the following caption: 'A bow on view of the U.S.S. Arizona as she plows into a huge swell. It is significant that despite the claims of air enthusiasts no battleship has yet been sunk by bombs'.
[16] Lawrence Freedman and Virginia Gamba-Stonehouse, *Signals of War* (Princeton, N.J.: Princeton Univ. Press, 1991), pp. 65–78.
[17] Testimony of ADM Jonathan Greenert before the U.S. House of Representatives Armed Services Committee on the Future of the Military Services and the Consequences of Sequestration. November 2, 2011 http://www.navy.mil/navydata/people/cno/Greenert/Testimony/111102%20HASC%20Hearing%20Defense%20Sequestration.pdf
[18] Robert E. Looney, 'Market Effects of Naval Presence in a Globalized World: A Research Summary', in Sam J. Tangredi, ed., *Globalization and Maritime Power*, (Washington, DC: National Defense University Press, 2002), pp. 103-131.
[19] Ibid, p. 105.
[20] From a brief presented at the NAVCENT/5th Fleet Maritime Infrastructure Protection Symposium February 2009 by CDR Thomas Rasmussen (Danish Navy) (claiming to be quoting IMO numbers): Risk of attack: 1:340
Risk of hijack (i.e. successful attack): 1:907

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The Corbett Centre for Maritime Policy Studies
Defence Studies Department
Joint Services Command and Staff College
Faringdon Road, Shrivenham
Swindon, Wiltshire
SN6 8TS, United Kingdom

Email: corbettcentre.jscsc@defenceacademy.mod.uk

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