"SEA STRANGULATION"
How the United States Has Become Vulnerable to Chinese Maritime Coercion

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“[T]he wise or unwise action of individual men has at certain periods had a great modifying influence upon the growth of sea power in the broad sense, which includes not only the military strength afloat, that rules the sea or any part of it by force of arms, but also the peaceful commerce and shipping from which alone a military fleet naturally and healthfully springs, and on which it securely rests.”

—Rear Admiral Alfred Thayer Mahan

“The Influence of Sea Power Upon History,” p. 28
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America is at risk: While China continues to expand both its naval sea power and its fleet of merchant vessels, the United States has adopted an “abandon ship” policy towards the crucial merchant maritime industry.

The U.S. Merchant Marine includes the ships, mariners and infrastructure that supply our troops abroad and move cargo between domestic ports and to locations around the world. Our nation’s Merchant Marine now has less capacity—ships, people and facilities—than at any time since the Spanish-American War.

Outsourcing on the high seas: In recent decades, U.S. commercial shipping capacity has been reduced as many shipping companies shifted their vessels to operate under “flags of convenience.” These ships are owned in one country but registered in another, typically for the purpose of paying lower wages and evading rigorous labor, environmental and safety regulations.

Why does this matter? Experts on sea power agree that a nation’s commercial shipping capability is closely tied to its naval power, and indispensable for economic and military security. According to Geoffrey Till, author of “Seapower: A Guide for the 21st Century”:

“[A] healthy merchant marine and secure sea lines of communication are essential for national security in peace and war.”

What can China do? China’s growing commercial and military sea power are carefully planned to support one another, giving China the ability to control—or even halt—shipping of essential goods by other nations. Nearly thirty percent of global trade currently passes through the South China Sea.

China now has the potential to implement a strategy we call “Sea Strangulation,” cutting off the supply of critical military and civilian goods. China could severely damage the U.S. economy, threaten our allies, hold our military hostage and deny critical supplies to Americans in locations such as Hawai’i without firing a single shot.

How Will the U.S. Supply Its Own Troops During a Crisis? In the event of a military conflict with China, Russia, North Korea or another hostile nation, America’s weakness in commercial shipping could become our Achilles’ heel. If the U.S. were forced to rely on foreign-flagged ships to supply U.S. troops, other nations could refuse to carry such goods. Or a growing naval power—such as China—could blockade crucial supplies for U.S. military forces.

What is the U.S. doing—and what should the U.S. do? The Maritime Security Program provides incentives to private companies to maintain ships under the U.S. flag. It has proven to be a cost-effective way to supply the U.S. military—as compared to a fleet of U.S. Navy supply ships—and needs to be expanded.

In addition, we should not allow the Jones Act to be chipped away by special interests who are calling for further cuts to the U.S. Merchant Marine. The Jones Act requires U.S.-flagged ships be used to deliver goods between U.S. ports. Critics claim it is a protectionist measure that raises costs to consumers. But a study by the independent Government Accountability Office (GAO) found no reliable data on which to base projections of increased shipping costs for overseas U.S. locations such as Puerto Rico.

650,000 jobs at stake: At present, maritime industries employ some 650,000 U.S. workers. 246,000 work in water transportation and related industries; over 400,000 are employed in shipbuilding, ship repair and related economic activity. Growing global trade will create new maritime opportunities—but absent a change in U.S. policy, new jobs and income will flow to other countries.
More U.S. Ships + More U.S. Mariners = Enhanced National Security: To counter the threat of Sea Strangulation, maritime experts Patrick Bratton, Ph.D. and Carl Shuster, Captain U.S. Navy (Ret.) recommend that that we strengthen—and if possible expand—the U.S. Merchant Marine. With a renewed commercial shipping capacity, the U.S. can control its own destiny. By contrast, an over-dependence on flag of convenience ships belonging to China or other nations could be worse than inconvenient. It could lead to severe hardships for those who live and serve under the flag of the United States.
If you picked up a newspaper recently, you likely saw headlines like the ones above.

China is testing us. The government of China has been behind recent cyber attacks originating overseas, thievery of database records and espionage within the borders of the United States. China also is moving full speed ahead with a military buildup designed to create a “blue water” navy. In September, China sent five warships into the Bering Sea during President Obama’s visit to Alaska.

In addition to the expansion of its naval fleet, which includes nuclear attack and ballistic missile submarines, conventional warships and a growing aircraft carrier force, China has developed land-based naval aviation from bases in both mainland China and military facilities in the Spratly Islands. This gives China the ability to project air power over sea lanes used by 30 percent of the globe’s international trade.

These developments threatening the military and economic security of the U.S. and key allies have been widely reported. Largely ignored, however, are the threats to our military and our prosperity posed by China’s massive fleet of merchant ships and the economic dependency created through Chinese domination of global shipping.

Just as China is emerging as a world power in carrying cargo, the U.S. is adopting an “abandon-ship” policy toward its own flagged vessels. This imbalance in sea power—not necessarily naval power—has put the United States and its allies at great risk.

In this paper, as specialists in maritime security and sea power, we will document how a weak American-flagged Merchant Marine has become our Achilles’ heel. China now has the potential to severely damage the U.S. economy, threaten our allies, hold our military hostage and deny critical supplies to Americans in places like...
Hawai‘i without firing a single shot. China does not need to blockade foreign ports to cut off the flow of goods: it will soon have the ability to control U.S. foreign trade. Chinese authorities could do this by controlling the price of goods entering or leaving United States ports through manipulation of shipping rates or ocean carrier service, in the same manner that they are now manipulating currency rates. The mere threat would disrupt global financial markets.

The actual implementation of this type of economic coercion would make the economic impact of the 2002 employer lockout of longshoremen on the West Coast of the U.S. seem paltry in comparison. China also has the ability to coerce weak flag of convenience nations and even robust neighboring countries like Japan and South Korea to follow suit. These scenarios are based in deeply held Chinese strategic thought that emphasizes winning “without fighting.” As the great Chinese strategist Sun Tzu wrote, “For to win one hundred victories in one hundred battles is not the acme of skill. To subdue the enemy without fighting is the acme of skill.”

Hopefully, this scenario—which we call “Sea Strangulation”—will never happen. But just as we plan for contingencies against terrorist attacks, cyber attacks or invasions by land, air and sea, we would be remiss not to address this critical weakness in our military and economic security.

What can the U.S. do if China’s leaders try to strangle shipping? Only about 80 of the ships engaged in international trade across the world’s oceans are U.S.-flag carriers. Although few in number, these ships play a critical role in our nation’s defense. More than 90 percent of the goods carried to Afghanistan and Iraq to support our troops in recent wars were transported on these U.S.-flagged vessels.

Ironically, the very success of U.S. sea power has undercut American consciousness about the importance of maritime security to U.S. national security and economic prosperity. The U.S. has enjoyed control of the seas since 1945 and has not faced a maritime peer-competitor since the demise of the Soviet Union nearly 30 years ago.

Security at sea is viewed as a given for most of the American populace, and few people understand how vital maritime commerce and security are to their everyday lives. For example, in recent Gallup polls, the Navy and the Coast Guard rank behind the other Armed Services in terms of both prestige and importance. Many people take maritime security for granted and do not see how vulnerable the U.S. is to Sea Strangulation.

America’s ocean-going ships have largely been kept in service through the Maritime Security Program (MSP), which currently maintains 60 active, militarily useful ships engaged in foreign trade. In addition to this federally funded program and in common with other traditional maritime nations, since 1789 the United States has had laws that protect domestic shipping, known generically as cabotage laws. Since 1920, United States domestic shipping has been maintained, at no cost to the federal government, by a cabotage law known as the Jones Act. Some special interests are now seeking to eliminate these laws and programs and shift shipping to the carriers that operate under flags of convenience. These ships are owned in one country but registered in another, typically for the purpose of evading higher wages and more forceful labor, environmental and shipping regulations in the shipping company’s home country. (See page 5, Flagging of Ships and Maritime Sovereignty.)

If the U.S. Navy, which has shrunk to its lowest fleet-strength since 1917, loses the support of commercial American ships and crews sailing Jones Act/MSP-vessels, it would need to depend on foreign carriers for the delivery of necessary, and often sensitive, cargoes. In this scenario, could China—or for that matter, Iran, North Korea or Russia—create “no-go” zones for ships of other nations? Would foreign ship owners and crews take the risk of standing up to these powers?

Could China—or for that matter, Iran, North Korea or Russia—create “no-go” zones for ships of other nations? Would foreign ship owners and crews take the risk of standing up to these powers?

Without ships sailing under the American flag, would Guam, Hawai‘i, and even Alaska be vulnerable if China applied coercive pressure?

At the very time that we need more merchant shipping vessels to counter this threat, do we run the risk of having none?
Even in our globalized age of air travel and instant communication, ships at sea carry most of our vital commercial goods and military forces. Ships carry 90 percent of world trade. It is of critical importance for the U.S. to retain the capacity to both carry goods and military forces securely over water. Partially due to the economic slowdown of recent years, the cost of shipping has declined. In this low-cost, race-to-the-bottom environment, American ships can’t be truly cost-competitive with ships from flag of convenience nations that charge ship owners almost no tax and have lower environmental and labor standards.

Not only are many owners of flag of convenience ships virtually impossible to trace, it’s important to keep in mind that the flag of convenience nations that register these vessels universally fail to offer naval support to protect if ships under their flags are threatened by belligerent nations or pirates.

The Maritime Security Program (MSP) and the Jones Act are vital to the maintenance of the U.S. merchant maritime industry, which is critical to U.S. national security. The Merchant Marine includes not only crews and vessels, but also the infrastructure of the U.S. shipbuilding and ship repair industry.

The U.S. Merchant Marine, however, is currently a shadow of its former self. As leading sea power scholar Geoffrey Till puts it:

“In the United States, many are worried that the U.S. merchant marine has shrunk considerably since 1945 and that only a tiny fraction of its ocean trade is carried in U.S. flag ships, and that this share is likely to diminish further. This matters because relying on the availability of foreign-flagged ships may prove strategically dangerous and commercially harmful.”

Including the 60-ship MSP fleet described above, in 2015, there remain about 80, U.S.-flagged merchant ships engaged in foreign trade. In addition, there are 85 to 90 vessels engaged in domestic Jones Act trade. The total available labor pool qualified for ocean-going employment to crew these vessels—and a number of privately operated vessels that are chartered directly to the U.S. government for military purposes—is about 11,000-12,000 active mariners. Our nation relies upon
this small number of commercial mariners for the support of our armed forces and our economic security. By comparison, China now has an active workforce of 500,000 commercial mariners, nearly fifty times as many as the United States. (See page 5, China’s Merchant Marine.)

In the absence of a sufficiently large fleet and a sufficient labor pool of qualified mariners, our defense needs will not be met. A potential shortage of senior level ship’s officers would hit operational preparedness particularly hard. Shortage in personnel at all levels, but particularly at the Master’s and Chief Engineer’s level, could be disastrous if a national emergency required full crewing of the existing vessels that are in commercial service.

The Jones Act states that:

“It is necessary for the national defense and for the proper growth of its foreign and domestic commerce that the United States shall have a merchant marine of the best equipped and most suitable types of vessels sufficient to carry the greater portion of its commerce and serve as a naval or military auxiliary in time of war or national emergency, ultimately to be owned and operated privately by citizens of the United States […]”

According to the Congressional Research Service:

“The Act requires that all waterborne shipping between points within the United States be carried by vessels built in the United States, owned by U.S. citizens (at least 75 percent), and manned with U.S. citizen crews.”

This is similar to requirements in the airline industry, in which U.S. airlines are required to be owned and controlled primarily by U.S. citizens for national security reasons.

Recently, the Jones Act has been under increasing criticism from opponents who portray it as a protectionist measure that drives up costs for consumers. This shortsighted view misses the crucial national security role played by the merchant maritime industry, which the Jones Act helps to sustain.

Many of the ships that are plying U.S. waters create a corps of trained officers and seamen. On-shore industries like shipbuilding, ship repair and the manufacture of marine components—including everything from marine engines to navigational and communications equipment—all play valuable roles for national security during times of crisis. Without a vital merchant maritime industry, the U.S. could fall prey to Sea Strangulation or be unable to have a sufficient number of trained mariners available for an armed conflict.

The alternative to having an organic, commercially viable, U.S. Merchant Marine or relying on foreign-crewed, foreign-flagged vessels, would be for the U.S. Navy to build or acquire a vast fleet of government owned and operated supply ships. The cost of such a fleet and the logistical network to support it would be in the billions.
In fact, the National Defense Transportation Association – Military Sealift Committee concluded that “the likely cost to the government to replicate just the vessel capacity provided by MSP dry cargo vessels would be $13 billion. And the United States Transportation Command has estimated it would cost the U.S. government an additional $52 billion to replicate the “global intermodal system” that is made available to the Department of Defense by MSP participants alone.

“It is hard to believe that our maritime capabilities are shrinking to those comparable during the time of the Spanish-American War, when the U.S. government had to charter foreign-flagged vessels to bring coal to the ships of the Great White Fleet and to provide logistical support to our troops in Cuba and the Philippines,” said Don Marcus, president of the International Organization of Masters, Mates & Pilots, the union that represents captains and deck officers on U.S.-flagged vessels.

Does anyone really believe that the world has evolved into a friendlier place where we can now entrust our security to foreign shipping interests?

“The lessons learned at the turn of the 20th century and in the First World War were the reasons that, first, the Jones Act and, later, the Merchant Marine Act of 1936 were passed in the first place—to protect our military and economic security. It’s why we have the Maritime Security Program. Does anyone really believe that the world has evolved into a friendlier place where we can now entrust our security to foreign shipping interests?” added Marcus.

Flagging of Ships and Maritime Sovereignty

All merchant ships have to be registered in a country. In the 20th century, countries began to use flags of convenience to register ships in a country other than that of the company that owns and operates them. Flag of convenience countries like Panama, Liberia, the Marshall Islands, Bahamas and Malta have five of the eight largest ship registries in the world.7 (The other three are Hong Kong (now part of China), Singapore and Greece.)8

Flag of convenience registration is generally done to avoid taxes, regulation under enforceable environmental, construction, safety and labor laws and even, in extreme cases, criminal responsibility by taking advantage of the ease of hiding vessel ownership. Such vessel owners also have the freedom to search the maritime labor markets of the third world to seek out the lowest labor costs available. At present, one of the preferred sources of low-cost labor in the shipping industry happens to be Myanmar. The process of searching the seven seas for the lowest possible wages and least forceful regulations is similar to the reasons behind other forms of outsourcing.

U.S.-flagged ships are registered in the U.S. and subject to all applicable national taxes, laws and regulations.

China’s Merchant Marine

In contrast to the United States, China has expanded its merchant fleet more than tenfold over the last 20 years. In 1984, China ranked ninth in number of ships with over 600 ships engaged in oceanic trade with a total of 16 million deadweight tons of capacity.9 By 2002, it had become the world’s largest shipbuilding nation, supplanting Japan and South Korea. By January 2004, its merchant fleet had expanded to the world’s fifth largest merchant fleet with 27.4 million deadweight tons of shipping.10 Six years later, it was third with over 2,030 commercial ships involved in global trade.11

Chinese-flagged vessels carry 90 percent of China’s seaborne trade.12 In contrast, U.S.-flagged vessels carry less than 2% of U.S. seaborne trade. Today, the 3,941 Chinese-flagged merchant ships engaged in global trade are active on all the world’s major trade routes and major seas from the Caribbean to the Mediterranean.13 Another 3,000 or more are engaged in coast trade and regional fishing activities, the latter of which is organized into a civilian maritime militia that has played an active role in China’s assertion of its South China Sea claims.14 More importantly, China’s government has directed that those ships be compatible with serving the military during times of crisis, emergency or conflict.15

The number of Chinese seafarers has increased in a similar fashion, rising from 280,000 in 1989 to 500,000 people in 2001.16 As discussed above, there are currently approximately 11,000-12,000 U.S. seafarers qualified for ocean-going employment. Two noted experts on the Chinese navy, James Holmes and Toshi Yoshihara, observed that China embraced the advice of the great American sea power theorist Alfred Thayer Mahan that
foreign trade and commerce are the most important building blocks of sea power.17 This is happening at the same time the U.S. has been drastically losing its own merchant fleet. To think that this will have no repercussions on the power play of global politics is to ignore the lessons of history.

Beyond the massive growth in China’s merchant fleet and merchant marine industry, China is pushing forward its “One Belt, One Road” initiative that aims at changing the rules of maritime realm in the Asia-Pacific region.18 China aims to replace the U.S.-led system that was set up after World War II with a new regime—with China itself as a central hub for maritime trade and investment.19

The Importance of Internal Trade: Riparian and Coastal

There is a temptation to see maritime trade as only international, but internal maritime trade is critical for a two-ocean country like the United States that straddles a continent. In 2011, U.S. trade carried by water totaled 2.1 billion tons, with 37.5 percent of that being domestic trade.20 About 640 million tons of cargo passed through American inland waterways, with a total value of $70 billion. In terms of coastal waterways, about 160 million tons travel annually between the mainland U.S. and places like Hawai’i, Guam, Puerto Rico, and other locations.21

Inland waterways in particular provide much of the bulk food and energy commodities that the American economy depends upon: 60 percent of our grain exports, 22 percent of our domestic petroleum, and 20 percent of our coal.22 Inland barges move goods in a cleaner, more energy-efficient manner than trains or trucks.23

Beyond the value of the goods traded, the U.S. Merchant Marine is a key part of the U.S. economy. According to the Maritime Administration (MARAD):

In 2011, water transportation and related industries accounted for about 246,500 employees, comprised of roughly 61,300 for water transportation, 91,200 for port services, and 94,000 for shipbuilding and repair. Of those employed in water transportation, about 33,700 were seafarers […]. Another 37,800 seafarers were employed by government and other industry sectors such as offshore oil and gas drilling, and port services.24

The vast majority of the seafarers described above are trained only for river, harbor and offshore oil and gas industry employment. While highly skilled, they are not qualified for or available for deep-sea maritime employment.

From 2000-05, $2.336 billion dollars were invested in the shipbuilding and repair industry.25 In 2011, the U.S. private shipbuilding and repair industry directly provided 107,240 jobs, $7.9 billion in labor income, and $9.8 billion in gross domestic product, or GDP, to the national economy. Including direct, indirect, and induced impacts on a nationwide basis, total economic activity associated with

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**FLAGGED MERCANTILE FLEETS**

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the industry accounted for 402,010 jobs, $23.9 billion of labor income, and $36 billion in GDP in 2011.26

Once again, the major argument against the Jones Act is cost to consumers. The act is seen as a protectionist measure that protects inefficient industries and prevents foreign competition from lowering prices. For example, it is often argued that it is the cause of high prices in locations where goods must be shipped, like the Great Lakes, Hawai‘i and Puerto Rico.27 Opponents argue that if the U.S. allowed foreign crews, companies and ships to service the routes between U.S. ports, costs would go down and savings would be passed along to consumers.

However, the Government Accountability Office (GAO) issued a report on the impact of the Jones Act and its impact on costs to Puerto Rico and determined that many of the allegations of high costs and unreliable service were not substantiated. In fact, costs had actually gone down in recent years.28 In its detailed study in 2013, the GAO found it difficult to substantiate many of the Jones Act critics’ claims that eliminating the Act would result in substantial savings.

“Because so many other factors besides the Jones Act affect rates, it is difficult to isolate the exact extent to which freight rates between the United States and Puerto Rico are affected by the Jones Act,”29 the report explained.

Moreover, in an earlier study in 1998, the GAO concluded that it is extremely difficult to calculate both the actual costs of the Jones Act and the supposed savings that critics champion because there is no reliable data from which to make estimates. Foreign-flagged vessels do not service these routes so it is hard to determine what their actual costs would be. In particular, when compared to servicing international routes, it would increase the costs to foreign-flagged and crewed vessels to comply with U.S. labor, environmental and safety laws.30

Another major argument against the Jones Act is that it undermines American competitiveness. GAO reporting does suggest that foreign vessels more often operate in a global marketplace, enabling them to adjust their capacity and rates to meet changing markets. On the other hand, the GAO finds that U.S. carriers have tailored their services specifically to provide shippers with a range of larger container units (45-, 48- and 53-foot) that are not used in international trade but are the same as those employed by U.S. trucking and rail transportation systems.31 Savings on maritime transport costs may be negated by the increased land transportation costs. Critics arguing against the Jones Act overlook that aspect of shipping among U.S. ports. Those additional costs may not be significant within the large volume of international cargoes entering and departing the U.S. daily, but intra-U.S. shipping to comparatively small markets like Puerto Rico and Hawai‘i may not enjoy the economy of scale endemic to international trade.

For example, foreign shippers are increasingly using “mega ships” which transport over 80,000 tons of freight at a time to reduce shipping costs.32 These huge ships carry over 19,000 containers and operate only between the largest of global ports, a development that will reduce...
the world’s smaller ports to niche markets or “loss
leaders.” Many of those smaller ports are in the United
States.

Foreign shippers may indeed offer significant savings
to gain the shipping business at U.S. ports, but will
that remain the case once the American shippers have
disappeared from the marketplace?

As James Patti, Washington representative for
the Maritime Institute for Research and Industrial
Development (MIRAID), stated:

“People have latched on to the economic difficulty
in Puerto Rico as an excuse to call for the repeal of
the Jones Act. There’s absolutely no evidence, in
any way, from any source, that the requirement that
U.S. vessels transport all the cargo moving between
the mainland and Puerto Rico is contributing in any
significant fashion to the economic difficulties in
Puerto Rico. We saw it when Congress considered
the Keystone Pipeline. We hear it all too frequently
from forces within the state of Hawai‘i. And we know
that that is one of the issues going on right now in
the international trade negotiations, when there are
nations around the world who are seeking to be able
to dump their vessels into our trades at the expense
of the American Merchant Marine and the American
worker.”

MIRAID is funded by both maritime labor and U.S.
shipping companies to work with Congress on maritime
issues.

“The Jones Act bears no responsibility for the lamentable
state of the Puerto Rican economy,” said Captain
Marcus, president of the Masters, Mates & Pilots union.
“A look at any of the large islands in the West Indies,
none of which are subject to the Jones Act, shows
a similar economic plight. Are Jamaica, Haiti, the
Dominican Republic thriving because they are free to
use whatever shipping they want? Absolutely not. These
economies, like Puerto Rico’s, are struggling because
they are essentially one-crop, agricultural economies that
are highly dependent on tourism and are impoverished
by our system of so-called global free-trade. In fact, the
reason that Puerto Rico is relatively much better off than
these neighboring islands is precisely because of the fact
that there remains some economic value and support in
being a part of the United States.”

In a recent letter to the Armed Services Committee of the
U.S. House of Representatives, Bruce Butler, national
director of The Navy League of the United States,
referenced the GAO study and also highlighted the
importance of the Jones Act to U.S. national security:

“Exempting Puerto Rico from the Jones Act would
undermine national security. The U.S.-mainland-
to-Puerto-Rico trade is a major American non-
contiguous shipping trade. Ironically, Puerto Rico
soon will be served by some of the most modern,
state-of-the-art vessels in the American fleet.
Exempting Puerto Rico and changing the rules in the
middle of the game would cause a ripple effect that
would impact the entire American shipping industry.

…the U.S. General Accountability Office (GAO)
recently completed the most comprehensive study
of the Jones Act in Puerto Rico ever and focused
heavily on the impact on national security. GAO
correctly noted that ‘the military strategy of the
United States relies on the use of commercial U.S.-
flag ships and crews and the availability of a shipyard
industrial base to support national defense needs.’ ”

The 40,000-member Navy League supports those
working in America’s sea services and their families,
including the Navy, the Marine Corps, the Coast Guard
and the U.S. Merchant Marine.
Total reliance on foreign-flagged vessels, while theoretically cheaper than the maintenance of our merchant marine industry, leaves the U.S. vulnerable to Sea Strangulation. Foreign-flagged ships are not under U.S. order and could elect to decline to enter “no-go areas”, and there is historical precedent for this. Moreover, in times of crisis, foreign-flagged vessels are more likely to be challenged by hostile countries, knowing that there is little chance of retaliation.

For example, in late April 2015, the Iranian navy seized a Marshall Islands-flagged Maersk freighter in international waters. This episode is only the latest incident of that nature. In 1987, Kuwait had several of its very large crude carriers placed under U.S. registry so the U.S. Navy could escort them through the Persian Gulf when Iranian Revolutionary Guard Corps patrol boats were attacking innocent shipping during Teheran’s War with Iraq.34

In the future, U.S. forces and even overseas territories could become vulnerable to Sea Strangulation. A South China Sea contingency scenario provides a useful example to demonstrate the need for maintaining a significant U.S.-flagged merchant shipping fleet. The South China Sea is host to nearly 30 percent of global trade in terms of monetary value. Beyond U.S. trade and energy that flows through the straits of Malacca, many key U.S. allies and friends (the Philippines, Thailand, Singapore, and Vietnam) are in the region and help support U.S. military assets.

If China prohibits vessels from transiting through what it considers its territorial waters—if the South China Sea essentially becomes a Chinese lake—how will the U.S. be able to supply and maintain its forward presence in the region and support its friends and allies? An even more dire situation could emerge if a rival power acquired the ability to halt foreign-flagged vessels from supplying American overseas bases and territories like Guam or Hawai’i. Having a U.S.-flagged Merchant Marine that can enter “no-go areas” and keep American forces and territories supplied is a vital part of U.S. national security in the 21st century.

**Sea Power and the Merchant Marine**

The link between the well being of a nation’s merchant marine and its national security is an essential component of sea power. Alfred Thayer Mahan, the great American theorist of sea power, wrote in detail about the necessity of the civilian aspects of sea power—the merchant sailors, shipbuilding industry, and financial infrastructure—that underpin a nation’s maritime power and security.

As Geoffrey Till, the leading world expert on sea power writes, “[S]ea power also includes the non-military aspects of sea-use (merchant shipping, fishing, marine insurance, shipbuilding and repair, and so on) since these contribute to naval power and since they can also influence the behavior of other people in their own right.”35

“[T]he necessity of a navy springs from the existence of peaceful shipping and disappears with it.”

While the naval or military aspects of sea power are commonly known, less understood is the role that the civilian merchant marine and maritime industry play. First, they provide the key role in supplying the logistical support to enable navies to do their work. Second, they provide resilience and a support base to sustain maritime power in times of need. Mahan termed this “staying power.” A robust merchant marine is vital for a maritime power since it “necessarily employs, besides the crews, a large number of people engaged in the various handicrafts which facilitate the making and repairing of naval material…”36

Mahan further wrote, “[T]he necessity of a navy springs from the existence of peaceful shipping and disappears with it.”37
The existence of a robust merchant marine industry also has spillover effects in terms of a nation’s “soft maritime power.” Countries that have large merchant marine industries are sensitized to developments in the maritime world, and they have an influence on the rules of the sea if they are strong enough.

The dominant maritime powers shape maritime regime—the law of sea and the norms that regulate the commercial maritime industry. The maritime regime that we know today was shaped by Great Britain in the 18th and 19th centuries, and by the United States in the 20th century.

Countries that set the rules of the maritime realm don’t just have large battle fleets. Instead, they possess a combination of large ports, big shipping lines, large merchant fleets, and the financial and brokerage industries that support maritime trade.38

Retaining a standing, skilled merchant marine is important for several reasons. In times of crisis, it relieves a country’s navy from the burden of training mariners, as opposed to the training that must be provided to newly inducted sailors.

In the United States, many Jones Act ships meet U.S. requirements for transportation and supply of military forces. Moreover, U.S.-flagged ships crewed by American citizens have the ability to travel in crisis or combat areas that might prove problematic to foreign-flagged and crewed vessels.

The U.S. government has several components and programs it depends on to give it sealift and logistical support for military and humanitarian deployments. Along with the 60 ships that comprise the Maritime Security Program, the U.S. Navy’s Military Sealift Command (MSC) operates directly or indirectly (through commercial contract awards) a total of approximately 100 naval auxiliary vessels to provide logistical support and perform special missions for the military across the globe.

In addition, the Maritime Administration (MARAD) manages the National Defense Reserve Fleet of about 100 vessels, of which approximately 46 comprise the Ready Reserve Fleet (RRF). The RRF is manned by the U.S. Merchant Marine and available at short notice for emergencies.39 With each passing year it becomes increasingly doubtful if the U.S. can crew even the 46-ship RRF in any sort of a sustained conflict with the available pool of qualified labor.

The maintenance of a sufficient sea-going labor pool is the critical element in sustaining maritime capacity.

The ships themselves, of course, are also essential, but a large number are available in reserve status or available for purchase overseas.

MARAD and the Department of Defense (DoD) share in the administration of the Voluntary Intermodal Sealift Agreement (VISA), which gives the U.S. access to virtually all U.S. flag deep sea vessels that are available in commercial operation, which includes MSP vessels, Jones Act vessels and the other U.S flag vessels that are privately owned and operated outside of MSP.

Finally, maintaining a vibrant U.S. Merchant Marine helps ensure “maritime consciousness” in both the population and the political leadership. Social, cultural, and economic contact between people and the maritime industry is vital to maintain maritime security and maritime power.40 The smaller and more isolated the maritime industry is from society and policymakers, the more vulnerable it is and the less important it seems for voters and taxpayers.

The American people seem to have taken U.S. “sea control” for granted since 1945. As a result, they no longer take maritime threats to their security seriously. This decreased interest is compounded by the shrinkage of maritime industry components, because fewer and fewer Americans have contact with the sea and the industries associated with it.

We should be concerned about the combined impact of minimizing maritime threats and the value of maritime industry. Opponents of the Jones Act take advantage of this lack of maritime consciousness to lure people with vague promises of reduced consumer costs, even if this could result in increased vulnerability. Ships, navies, and merchant marines are expensive but they are critical foundations of a country’s maritime security.
In short, navies and merchant marines are inseparable aspects of maritime power and security. It is impossible to have a strong navy that is capable of securing a nation during crises and wars without the civilian backing of a merchant marine.

When Britain was engaged in a bitter maritime rivalry with Bourbon and Revolutionary France in the 17th through the 19th centuries, one of Britain’s major advantages was its “staying power” because of its larger and more developed merchant fleet and shipbuilding industries. At various times, the French government could “surge” and put to sea a larger navy capable of defeating the Royal Navy in battle, but in the long run, France was not able to sustain naval operations and maintain sea control, even off its own coast.

Britain, in contrast, was able to recover from defeats, reconstitute its navy, and protect its homeland from invasion. This was only possible because its superior maritime merchant industry was able to build new ships and induct merchant ships and sailors into service.

China’s leaders recognize this historical fact. China’s 2015 Defense White Paper notes the importance of global trade, the security of overseas interests and protection of strategic sea lines of communications (SLOCs). As mentioned earlier, Beijing ordered all merchant shipping to be built with features enabling the military to use them in times of war. Finally, China recognized that the seas and oceans are of great importance to its sustainable development. Mercantile shipping is a critical component of both China’s maritime power and sustainable development. For example, the Military Strategy calls for joint utilization of civilian and military resources to ensure they are compatible and mutually accessible.

**Maritime Coercion and “Gunboat Diplomacy”**

Of all the forms of military power, sea power most easily translates into diplomatic power, hence the classic term “gunboat diplomacy.” Beyond its traditional military uses, sea power can be effectively used for “coercive diplomacy” instead of war. Navies can interdict shipping through maritime interception operations (MIOPS) by stopping, searching and seizing ships. The great British sea power theorist Sir Julian Corbett reminds us that: “Command of the sea, therefore, means nothing but the control of maritime communications, whether for commercial or military purposes […] It is obvious that if the object and end of naval warfare is the control of
communications it must carry with it the right to forbid, if we can, the passage of both public and private property upon the sea.”

Corbett wrote that is was best to think of this in terms of “commerce prevention” rather than necessarily “commerce destruction.” In order to achieve your strategic objectives, it is not necessary to destroy all of the enemy’s maritime commerce. It is sufficient to demonstrate the ability to deny commerce and communications.

This describes the use of naval capabilities as a form of coercion: the use of threats to influence the behavior of another. These threats could be used to prevent the U.S. from doing something—a deterrent threat—or to get the U.S. to stop doing something or to take a specific course of action—a compellent threat. Such threats would not have to take place during actual war but instead could be enacted during a peacetime crisis and executed at a level below the use of full-scale war.

In the maritime domain, one of the more effective forms of coercion is maritime interdiction operations, during which a country uses its navy to halt communications and trade of another state by “stopping, searching, seizing and diverting” its ships. In one of the best known examples of this type of coercion, President John F. Kennedy implemented a naval quarantine on offensive Soviet weapons coming into Cuba until the Soviets agreed to withdraw their missiles from the island.
The global maritime transport industry’s glut of shipping amid anemic economic growth and declining oceanic trade has driven cargo transport rates to record lows. Such developments appear to expand the cost disparity between foreign and American-flag mercantile carriers.

As we have outlined above, it has been argued that the American economy would benefit from opening our country’s domestic trade to those “lower-cost” foreign competitors. Those who argue this point are among the most vociferous advocates of repealing the Jones Act of 1920, which requires that all U.S. military cargoes and commercial, maritime and riparian shipping among U.S. ports be carried by American-built and registered vessels.

The Jones Act should be seen as partner legislation to the Maritime Security Act (MSA) of 1996. The MSA allocates stipends to American companies that register militarily useful, U.S.-flagged commercial ships (currently 60) that incorporate features facilitating their use by the military during times of crisis and emergency. Coming at a time of domestic budgetary pressures and slow economic growth, it is only natural for political leaders to seek budgetary cost savings and reduced transportation costs. However, a country’s maritime industries have more than a commercial impact. America’s maritime industries are no exception. They also play a national security role, an especially critical function in today’s uncertain and chaotic global situation. As Rear Admiral Alfred Thayer Mahan once said, “Commercial enterprise is never so secure, or untrammeled as under its own flag.”

In another prescient comment, Mahan went on to say, “…and when the present owner is obstructive by temperament, as China is, the impulse to overbear its political action by display of force tends to become unbearable.”

Will History Repeat Itself?
Since the 1990-91 Gulf War, the U.S. public has become used to the ability of the U.S. to project power in expeditionary operations from the Middle East, the Balkans and Afghanistan. While much attention is given to air power and covert operations, the bulk of American forces and logistical support came from the sea. Throughout American history, the Merchant Marine has proved vital to America’s security.

Commercial enterprise is never so secure, or untrammeled as under its own flag.
In the Revolutionary War and the War of 1812 the United States heavily depended upon the Merchant Marine to fight because the standing naval forces in both wars were so small. At the start of the Spanish-American War, when the U.S. Merchant Marine was at one of its lowest levels in history, the U.S. had to scramble to buy foreign ships and press them into service.

In both world wars, the U.S. battles in the Atlantic Ocean (and also in the Pacific during the Second World War) were won in part because of the valor and sacrifice of the Merchant Marine. Over 8,300 U.S. merchant mariners were killed at sea and 12,000 were wounded during World War II. Losses were much lower in later conflicts, but that does not mean America's civilian mariners did not face danger. Sixteen were killed and 45 wounded by the more than 138 attacks conducted against U.S.-flag ships during the conflict in Vietnam between May 1964 and November 1972. However, even with a history of service and sacrifice, the temptation to increasingly rely upon foreign-flagged ships has grown since the Second World War.

Outsourcing maritime transportation brings its share of problems. First and foremost, foreign-flagged ships may not transport the cargoes where we want them to go, particularly in the case of war zones or areas where a power has instituted an exclusion zone or "no-go" maritime areas. Second, in times of crisis, certain nations can and have applied pressure on the countries supplying flag of convenience ships to refuse supplying crews or vessels. Moreover, in some cases the country or ships in question could be the very ones embroiled in a dispute with the U.S. or its allies. It is highly unlikely under this scenario that a foreign country will allow its ships to be used by the U.S. while in conflict with the U.S.

The Spanish-American War and Lessons for Today

One of the little known facts about the Spanish-American War is that at the time, the U.S. Merchant Marine had declined to a condition very similar to its state in America today. Less than ten percent of U.S. exports at that time were carried on U.S.-flagged ships. In fact, the United States lacked the shipping to support the Navy's deployment to Cuba and the subsequent blockade. That, and reports of Spanish efforts to acquire shipping, led the Navy Department to purchase steamers and cargo ships to use as fleet auxiliaries and supply ships. The ships had to be manned by naval crews since there was a shortage of American merchant seamen.

Fortunately, Spain's merchant fleet was in even more dire straits than that of the U.S., and more importantly, its navy was in such decline that it could not challenge American sea power in the open ocean. Otherwise, the
American blockade of Cuba would have faced a serious challenge when ships withdrew to coaling bases in Florida.

World War I and World War II

As in the case of the Spanish-American War, the U.S. merchant shipping fleet had been in decline for years by the outbreak of World War I in Europe. The Merchant Marine expanded during the war in response to European demand for American materials, which commanded a high price for shipping with corresponding profits. German U-boats began to attack neutral shipping. Under international law, if the ship was registered in the U.S., its crew and the ship itself represented an extension of American sovereignty at sea and as such, traveled under the protection of the American flag. German attacks on our merchant ships led to America’s entry into World War I.

Upon entering the war, however, the War and Navy Departments discovered America lacked the shipping to transport required troops and supplies to Europe. The shipping shortage forced the United States on April 16, 1917 to establish the U.S. Shipping and Emergency Fleet Corporation to acquire, build and operate merchant shipping to meet the needs of national security and foreign and domestic commerce in World War I.

Because of the Jones Act of 1920 and the Merchant Marine Act of 1936, the United States’ merchant fleet was in a better position when the country entered World War II with over 500 ocean-going vessels in service. That fleet grew to over 5,600 ships and transported over 203,522,000 tons of dry cargo, 64,730,000 tons of petroleum products, one million vehicles, 24,000 airplanes and over seven million troops and civilians at a cost of 700 ships sunk. It can be argued that America’s ability to project its power and liberate Axis-occupied territories would have been impossible without the contribution of America’s merchant fleet.

Vietnam

One of the most telling examples of the problems of using foreign-flagged vessels to supply U.S. military forces during times of divided international support took place during the Vietnam War. Secretary of Defense Robert McNamara’s attempt to use foreign-flagged ships to supply our forces in Vietnam proved an embarrassing failure.

In August 1965, Mexico ordered its merchant ship, the SS El Mejicano, to offload its cargo of U.S. military supplies because Mexico was neutral in the conflict. Loading the cargo on a Greek-flag ship did not solve the problem because the Greek crewmen also refused to sail the cargo to Vietnam.

Within the next two months, at least two other foreign-flag ships, including the British-flagged M.V. Elya Harbour, refused to carry U.S. military supplies to Vietnam. Five other foreign-flagged ships refused to transport U.S. military supplies to Vietnam between August and September 1965, for a total of seven ships in three months.

The foreign crews’ refusal to sail delayed delivery of equipment, fuel and other supplies to U.S. forces in Vietnam. Fortunately, the foreign-flag contribution to the sealift effort was short-lived. At the war’s peak, the U.S. merchant fleet delivered 98 percent of all materials and supplies used in the war, averaging 800,000 measurement tons a month. More importantly, all the bulk fuel and 99 percent of the ammunition used by American and South Vietnamese forces were delivered to the theater of operations in U.S. merchant hulls.

To give an example of the scale, in 1967 alone, U.S. and Allied Forces consumed 38 million barrels of fuel. Yet the U.S. entered the war with a serious shortfall in shipping, and ships had to be reactivated from the National Defense Reserve Fleet. The combination of problems with reactivated ships, foreign-flag stoppages and a shortage of trained merchant seamen resulted in the loss of 2,567 ship days in 1966. Problems continued until sufficient levels of ships and seamen became available in 1967.

The 1990-91 Gulf War

Some opponents of the Jones Act dismiss this concern and point to the Persian Gulf War in 1991 as an example in which the U.S. successfully used foreign-flag shipping to transport military cargoes and supplies into a war zone.

The Desert Storm example appears compelling on the surface. The United States was better prepared before Desert Storm, and unlike Vietnam, enjoyed the imprimatur of a U.N. mandate for its operations. With more than 40 nations joining the coalition to liberate
Kuwait, the United States could reliably charter foreign-flag vessels, many of which were registered in countries that were part of the coalition. More importantly, the U.S. had invested over $7 billion in improving its sealift capability during the 1980s. That gave the Department of Defense access to 96 Ready-Reserve-Force (RRF) ships, 25 maritime-prepositioning-force ships, eight fast-sealift ships, two hospital ships and two aviation-logistics-support ships.

America’s NATO allies also contributed shipping to the effort. During the first 90 days of the buildup for that conflict, mercantile shipping had delivered over one million tons of equipment and supplies. Fortunately, fuel, lubricants and other petroleum based logistical requirements were available locally. During the first Gulf War, 22.6 percent of all dry cargo had to be carried in foreign-flagged ships and another 22 percent carried in reactivated RRF ships.

The Military Sealift Command used foreign-flagged ships to deliver 23 percent of U.S. military supplies to the Persian Gulf. But using this example to criticize the Jones Act ignores the unique circumstances of that conflict. During Desert Storm, the U.S. was acting as the executive agent for a U.N. Security Council mandate to liberate Kuwait. Many of those foreign-flagged ships and crews hailed from countries that were part of the international effort directed under that mandate. Moreover, 22 percent of cargo was still carried by RRF ships.

Contemporary Vulnerabilities
As mentioned earlier, critics of the Jones Act use the 1990-91 Gulf War as a counter example for the successful use of foreign-flagged vessels to support an expeditionary operation. However, those critics do not see the unique circumstances of that conflict, in which all the major powers and Security Council members were united.

Can the U.S. assume that all of its potential crises, conflicts and contingencies requiring a major force deployment and sustainment will enjoy a U.N. mandate?

Can any assumption about a U.N. mandate be made, given that China and Russia, two of the veto-holding Security Council members, are now hostile to the United States and may be the opposition in those circumstances?

It is not certain that South Korea and China can be relied upon for shipping needs in all circumstances. Would either China or South Korea allow the U.S. to ship military cargoes into a combat zone where China was the opposing party?

For example, Chinese shipping will not be available to the U.S. in the event that America opposes China’s actions. Moreover, such a scenario would put South Korea in
a difficult position because the U.S. is that country’s primary deterrent against North Korean aggression. As South Korea’s major trading partner, China has significant influence over North Korea’s actions. In that instance, South Korea would do all it could to avoid antagonizing either country. Choosing neutrality, including a prohibition against its ships hauling either antagonist’s military cargoes and supplies, would seem a prudent policy.

Similarly, the Heritage Foundation’s criticism of the Jones Act notes the current U.S. reliance on Russian icebreakers for work in the Arctic Ocean. That statement ignores the fact that Russia cannot be expected to be so forthcoming and cooperative during any dispute or crisis related to the Arctic because Russia has become increasingly assertive of its claims on those waters. Russia also is reinforcing its military presence in the Arctic and restoring one of its formerly abandoned military bases on Kotelny Island.

The U.S. cannot expect Russia to provide its icebreakers to a U.S. force entering the Arctic during a dispute in the Arctic. The fact that the U.S. cannot cost-effectively build an icebreaker now does not mean the country should always rely on Russian or other foreign icebreakers. The American Shipbuilding Act of 1936 provides incentives and funding for American shipyards to invest in new shipbuilding methods and designs. During a crisis, the only reliable icebreakers will be those manned by Americans. It is therefore prudent for the U.S. to invest in developing the capability now, so it can have its own icebreakers in the event a future contingency or crisis arises in the Arctic.

Beyond whose flag the vessels fly, it must also be remembered that the ideal ships for efficient transportation of cargo are not always ideal for military purposes. Today’s private maritime shipping is dominated by massive container ships that depend on large and specialized ports for loading and unloading. The Government Accountability Office (GAO) notes:

“According to DoD, the container ships—particularly lift-on/lift-off vessels—in this trade are less useful for military purposes compared to military vessels with roll-on/roll-off capability.”
The Jones Act enables the U.S. Merchant Marine and U.S. shipyards to continue to make and operate commercial vessels that are compatible with DoD requirements. Vessels made available through the RRF and VISA programs are invaluable for U.S. military operations and natural-disaster responses. For example, 35 of the 46 ships in the RRF are roll-on/roll-off vessels. As noted sea-power-expert Geoffrey Till observes:

“Light though most expeditionary forces are, much of their equipment is really basically unsuitable for containerization. Nor, often, are there the kinds of sophisticated port infrastructures needed to load and unload containerized expeditionary forces in parts of the world in which they are likely to be operating. [...] nonetheless, the confidence that this problem can be solved by throwing enough money at it as easily as it was in Desert Shield/Storm may well prove unfounded. In a suppliers’ market, when the required ships are scarce, prices will rise. Even so, shippers may prove increasingly reluctant to risk long-term market share by breaking existing charters and contracts, whatever the short-term incentive. Merchant seamen themselves are becoming a rarer commodity, and in the future it may not prove quite as easy as it used to be to replace one crew by another if political conditions demand it.”
China has a long track record of using coercive tools in its foreign policy, in particular, over what it perceives as territorial disputes. Having seized the Paracel Islands from South Vietnam in 1974, China engaged in a limited naval war with Vietnam to gain control of Johnson South Reef in the Spratly Islands in 1988. It was willing to engage in provocative missile tests and military exercises to put pressure on Taiwan in 1995-96, and it has been willing to take assertive action in the South China Sea and the Senkaku/Diayu dispute with Japan.

China has pursued a forceful policy in the South China Sea (SCS), which includes aggressive use of international law, often termed “lawfare.” China claims that the 200 nautical mile (nm) Economic Exclusion Zone (EEZ) constitutes territorial waters under the United Nations Convention on the Law of the Sea. (Angola, Argentina, and Mexico are among the countries that interpret the convention that way; the U.S. does not.) That claim would designate nearly all of the South China Sea as Chinese territorial waters. The only waters that would remain outside China’s claim would be the immediate coastal waters of the other SCS states. The U.S. would have little legal standing if China wanted to quarantine any country whose commerce passed through those waters, or moved to enforce its maritime regulations by seizing any foreign-flagged vessels carrying military cargoes, supplies or U.S. trade goods.

Seizing a U.S.-flagged ship would change that calculus. Ships enjoy a special status as national property under international law and nations are allowed to act in defense of their “merchant ships.” Thus, President Kennedy was reluctant to seize Soviet-flagged ships carrying missiles to Cuba in 1962, and the U.S. secured a U.N. sanction to seize ships of any flag suspected of carrying weapons of mass destruction or delivering weapons to sanctioned countries/areas.

**Sea Denial Operations Against U.S. Efforts to Assist Allies and Interests Abroad**

A South China Sea contingency scenario provides a useful example to demonstrate the need for maintaining a significant U.S.-flagged merchant shipping fleet. More than half of the world’s merchant fleet tonnage and supertanker traffic passes through the South China Sea. Moreover, the Philippines, one of the territorial claimants to a section of the sea’s territories and waters, is the country most bullied by China, even though it is a treaty ally of the United States.
China claims those waters and the air space above them to be its sovereign territory as depicted by its “9-Dashed Line” on its regional maps and passports. That line not only encompasses the disputed Spratly Islands, but also the Paracel Islands taken from Vietnam in April 1974 and Indonesia’s Natuna Islands that lie outside the Spratly Island Archipelago. More importantly, China has embarked on a large scale construction program there, dredging entrances into the archipelago's islets and atolls and destroying sensitive coral reefs to use as landfill for the building of airfields and military facilities. It has already seized two atolls from the Philippines and is blockading a third, Mischief Reef, where the Philippines ran aground an amphibious ship to support a small unit of its Marines. The move was intended to deter further Chinese territorial seizures. China’s actions raise several potential policy questions and risks. This includes the possibility that the U.S. could be drawn into a conflict in the South China Sea in response to Chinese aggression, such as an attack on Philippine territory or forces.

Any potential conflict in and around that region will, by the nature of the location and environment, be one of air and naval power. The islands and atolls are not large enough to support major ground forces, and the territories in dispute are surrounded by water. The only ground forces required will be air defense units, such as U.S. Army Patriot Batteries, to defend the air space of the involved allied countries and U.S. air bases and facilities.

The logistics requirements during such a conflict will be substantial. Unlike Desert Shield, no co-located massive petroleum producing infrastructure and supplies will be available in the region. Indonesia has been a net petroleum importer for years, and it is questionable whether Brunei will risk antagonizing China by selling petroleum products to U.S. forces. In addition, large quantities of fuel will be required.

Although America’s aircraft carriers are nuclear powered, the other elements of their strike-groups are not. Destroyers consume 100 to 200 tons of fuel a day, depending on a unit’s class, the weather, and the nature of its operations. Each plane that flies leaves the flight deck with several tons of fuel aboard. Each Air Force aircraft will also require several tons of fuel per day and if combat occurs, an additional tonnage in ordnance will be required, as well as parts and material to repair battle damage.

The scale of the logistics effort probably will not approach that of the Persian Gulf War or Vietnam, but a South China Sea contingency will share the latter war’s challenges in acquiring foreign mercantile shipping.

A South China Sea contingency will require the movement of nearly 100,000 tons of ordnance and three times that weight in fuel during the first 30 days.

The authors estimate that a South China Sea contingency will require the movement of nearly 100,000 tons of ordnance and three times that weight in fuel during the first 30 days. A sustained daily delivery rate of 2,000 and 20,000 tons of ordnance and fuel respectively, for each deployed carrier strike or Air Force Expeditionary Brigade deployed will also be needed. Food, medical and maintenance supplies add several tons a day to that. Any air defense units deployed will also require sustained logistics.

Given the distances and shipping times involved, (6,300 to 6,500 nm and 22 days at 12 knots), supporting a force of two carrier-strike groups and two Air Force Expeditionary Brigades in combat will require a minimum daily delivery of 8,000 tons of ordnance and 80,000 tons of fuel plus other supplies. Even though several of the nations in the region share America’s interest in keeping the South China Sea lanes open, risking China’s wrath and their mariners’ lives would be a powerful deterrent to involvement of any kind.

Another factor that needs to be considered is the possibility of China or other hostile powers creating “defense zones” or “maritime exclusion zones.” During a maritime dispute, one or more powers can designate large tracks of the high seas as an exclusion zone, making any foreign vessels—military or civilian—open to attack. These types of zones emerged first during the Russo-Japanese War and they were further developed during the World Wars.

While there remains a certain amount of controversy over the legality of these zones in contemporary laws of war and sea, powers have employed them. Their usage has created a growing sense that these exclusion zones are becoming legitimate actions according to customary international law.
In the 1982 Falklands/Malvinas War, Great Britain declared a 200-mile “total exclusion zone” around the islands and declared: “Any ships or aircraft found in the zone would be regarded as hostile and would be liable to attack.” If China implemented a “maritime defense zone” in the South China Sea, it is uncertain if the U.S. could rely upon foreign-flagged vessels to enter it. This scenario is not unrealistic, given that China implemented an “Air Defense Identification Zone” (ADIZ) over disputed territories in the East China Sea in 2013. The ADIZ has been seen as largely symbolic (the U.S. and Japan have not complied with stated Chinese demands for entering the zone) but if China decided to place a maritime exclusion zone in water vital to U.S. and allied shipping, the stakes would be much higher.

Sea Strangulation of U.S. States and Territories

A maritime quarantine of Guam, America’s Pacific Island Territories or Hawai‘i would also challenge America’s ability to acquire foreign-flag ships to sustain those territories. The possibility of China or, more remotely Russia, attempting to quarantine Guam and the island territories cannot be discounted.

Guam provides a staging area for U.S. forces involved in any Western Pacific contingency, such as the South China Sea scenario described above. Guam would be more of a challenge to support than Hawai‘i because of the additional distances involved, which add another ten days to any voyage carrying material from the U.S. mainland at the typical transit speeds of today’s mercantile vessels (10-12 knots).

Without a U.S.-flag fleet, shifting Guam to reliance on American-flag shipping during an emergency would be a very expensive prospect. The existing shipping that carries Hawai‘i’s trade could be used in the early weeks of such a crisis but the Ready Reserve Fleet (RRF) would have to be reactivated to sustain the effort. Without that strategic reserve and the pool of trained mariners available due to the Jones Act and MSP fleets, America’s options would be limited.

The contingency shifting of a vessel’s flagging from a foreign nation to the United States, as was done in the Persian Gulf in 1987, is not very likely in such a scenario. But the U.S. Navy’s need to maintain open sea-lanes and national security necessitates the maintenance of a reserve of U.S.-built and flagged ships, as well as trained mariners.
mariners. Otherwise, the military will have to undertake the mission at the expense of its combat operations elsewhere.

**Security Risks from Violent Non-State Actors**

The threats facing America today are different from those of yesteryear. When the Jones Act was passed, state-on-state conflicts were our nation’s primary security concern. Terrorism has changed that, adding an internal element that led to the formation of the Department of Homeland Security (DHS). Any commercial savings gained by opening America’s coastal waters and riparian systems to foreign vessels will be negated by the expanded security requirements placed on DHS to vet and monitor those crews and vessels. This is not say the “insider threat” doesn’t exist with American crews and vessels, but the effort to detect and monitor its own vessels and crews is far less than is required for crews from overseas. In fact, all American mariners and waterfront workers are highly vetted by the DHS and are required to carry a Transportation Workers Identity Credential issued by the Transportation Safety Administration before they are eligible to work. Obviously, no such requirement exists for the many thousands of foreign mariners who enter U.S. ports every day aboard foreign flag ocean-going vessels.

**Analogy to Cyber Disruption**

In recent years, the threat of a cyber attack has caused people to fear massive disruption in a nation’s critical financial or economic infrastructure. What would the effects be if a cyber attack paralyzed financial markets or perhaps shut down key infrastructure like water, electricity, or transportation? While these are very valid fears, many of these effects are not limited to a cyber attack. A major disruption in commercial shipping could have a similar impact. On August 24, 2015, the Dow Jones Industrial Index fell nearly 1,000 points in early trading because of a selloff by small investors on China’s stock exchange. This was the Dow’s largest point drop in a single day in history. How far would the market drop if China’s leaders froze shipments for a day? A week? A month?

As noted above, commercial shipping is vital for the survival of the U.S., particularly its overseas territories. One of the general trends in maritime shipping in the past 20 to 30 years has been shrinkage in the numbers of ships. Their number has been reduced to a relatively limited supply of large container ships with small crews compared to the large numbers of freighters that used to ply the seas.

The loading and unloading of container ships must also be done at a small number of large ports that have the facilities for these specialized ships. The fleet and ports are run to be very efficient with little surplus or waste capacity. If a hostile power cuts off U.S. territories or bases from critical supplies by intercepting its maritime commerce and communications, the effect of this on the targeted area would be similar to a disruptive cyber attack on infrastructure.

For example, the state of Hawai‘i imports over 90 percent of its food supply. Its produce supplies at any given time could only meet the needs of residents for about ten days. Hawai‘i relies for 70 percent of its energy needs on imported oil, mostly crude oil imported from overseas aboard foreign-flag vessels and refined in Hawai‘i, and 14 percent on imported coal. Sea Strangulation of an overseas territory like Hawai‘i could have devastating consequences in a short period of time.
Conclusion: The Jones Act Combined with the Maritime Security Program Is the Best Way to Counter the Threat of Sea Strangulation

In times of international crisis, the United States cannot depend on outsourcing its Merchant Marine to the lowest bidder. Vessels might not be willing to go where the U.S. needs and direct them to go. In some cases, foreign powers such as China could have the ability to apply “Sea Strangulation” to overseas U.S. forces and territories.

Just as we prepare defenses against data breaches and cyber attacks, we must prepare for a new form of economic coercion caused by Sea Strangulation. We have never been more dependent on foreign goods and the ships that haul those goods than we are today. Never in the modern era has the U.S. had less ability to haul those goods on its own ships.

Our nation’s leaders cannot assume foreign-flag shipping will be available in situations during which their nations of registry are not involved in the conflict or crisis. Ultimately, America’s mercantile fleet and mariners are the only assured carriers of military equipment and supplies under all circumstances. As Till writes:

“The conclusion to be drawn from this great store of hard-won experience seems obvious. Merchant shipping, and its concomitants, are crucial to the prosperity of nations, and to their safety. Naval power depends on merchant ships; protecting it is arguably second only in importance as a naval imperative to protect the homeland against invasion. Navies that forget this do so to their nation’s peril because a healthy merchant marine and secure sea lines of communication are essential for national security in peace and war.”

The United States is no exception to Till’s warning—quite the opposite. The U.S. needs to supply its military in far-flung locations, maintain supplies to states and territories dependent on sea transport and have a merchant marine presence for economic security on the mainland.

In closing, we would do well in remembering Mahan’s warning about doing damage to our merchant maritime industry because that is where the source of American maritime security rests.

Critics of the Jones Act, the Maritime Security Program and other programs that support U.S. maritime interests have made an uncertain case about eliminating these programs—despite this era of globalization, outsourcing, and “the bottom line.” Several independent studies have shown the savings from eliminating the Jones Act are at best uncertain. However, the benefits of a strong American Merchant Marine are certain.

The Maritime Security Program and the Jones Act keep the U.S. Merchant Marine and merchant marine industry afloat. A vibrant merchant marine helps to make experienced seamen and suitable, military transportation vessels available to the U.S. at times of conflict and crisis. The investments in the U.S. shipbuilding industry and port facilities assist the U.S. Navy and Merchant
Marine in having appropriate vessels and ship repair facilities.

The best and perhaps only way we can counter the threat of Sea Strangulation is to strengthen—and if possible expand—the U.S. Merchant Marine. We recommend strengthening the Maritime Security Program and maintaining the Jones Act. In contrast, an over-dependence on flag of convenience carriers and ships belonging to China or other nations that may test the U.S., could lead to hardship for those who live and serve under the flag of the United States.
Endnotes


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"SEA STRANGLATION": HOW THE UNITED STATES HAS BECOME VULNERABLE TO CHINESE MARITIME COERCION 27
Why We Chose to Research This Topic
We were driven to write this piece because of our professional backgrounds, our personal interests, and our location. Carl spent over 20 years in the U.S. Navy actively participating in advancing America’s maritime security, and Patrick has been researching how countries use the power of economic coercion to achieve their foreign policy goals short of war and other maritime issues in the Asia-Pacific region. Both of us reside in Hawai‘i, a place that is highly dependent upon the U.S. Merchant Marine to deliver most needs. The prospect of a hostile power cutting our home off from vital supplies of oil, water, and food is something that we may be more sensitive to than other Americans living on the mainland.

More on Our Background
Dr. Patrick Bratton is Associate Professor of Political Science, and Chair of the Department of History and International Studies at Hawai‘i Pacific University, where he teaches courses in international relations and security studies. He is also a Fleet Seminar Professor for the Naval War College, College of Distance Education. He is a specialist in security issues, with a focus on coercive diplomacy, maritime security, and Indian foreign and security policy. He has been a visiting international fellow at the Institute for Defence Studies and Analyses (IDSA), India’s leading foreign affairs think-tank.

He was co-editor with Geoffrey Till of The Triumph of Neptune? Seapower and the Asia Pacific (Routledge, 2012), and the author of several articles on Indian security issues and coercive diplomacy in journals including The Naval War College Review, the Journal of Strategic Studies, Strategic Analysis, and others. He received a BA in History from the University of Alaska, Fairbanks; a MScEcon in Strategic Studies from the Aberystwyth University (UK); MA in History from the Université de Rennes (France), and a Ph.D. in Politics from The Catholic University of America.

Captain Carl Schuster was commissioned at the University of South Carolina NROTC Battalion in May 1974 and served in a variety of sea and shore postings during his 25-year career, including tours on Allied and U.S. Navy surface ships and submarines. He finished out his career as Director of Operations at the Joint Intelligence Center Pacific in Pearl Harbor, Hawai‘i. After retirement, he joined the faculty at Hawai‘i Pacific University where he has taught a variety of topics ranging from China’s Modern Military Doctrine and 20th Century Maritime Operations. He is also the director of a corporate think tank and a widely published author on matters of military history and contemporary military developments.