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Steve Carmel

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The new national maritime strategy, entitled "A Cooperative Maritime Strategy for the Twenty-first Century," is designed to recognize the changes and challenges wrought by globalization in the maritime commons. The great facilitator of globalization is, of course, commercial shipping. The progressive growth of maritime trade over the centuries has produced an international system of trade that, in the words of that great oracle of seapower Alfred Thayer Mahan, "forms an articulated system, not only of prodigious size and activity, but of an excessive sensitiveness, unequaled in former ages."[1] Improvements in speed and consistency of service coupled with enormous reductions in the cost of sea cargo transportation have shaped the evolving system of global manufacturing in ways unforeseeable just twenty years ago. Any strategy that devotes as much attention as the new maritime strategy to that aspect of life on the global commons will cause those who participate in that realm to take a keen interest in it; hence, an analysis of that strategy from the perspective of the commercial shipping industry is warranted.

Mr. Carmel is Senior Vice President, Maritime Services at Maersk Line, Limited (MLL), responsible for all technical and operating activities. He previously held positions in operations and finance for U.S. Marine Management, Inc., and Maersk Line, Limited. He began his career sailing as a deck officer and master, primarily on tankers. Mr. Carmel graduated from the U.S. Merchant Marine Academy in 1979. He also holds an MA in economics and a MBA from Old Dominion University in Norfolk, Virginia, and is currently pursuing a PhD in international studies. Mr. Carmel is a member of several industry and academic associations and the Chief of Naval Operations Executive Panel (N00K).

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As a point of departure for that analysis, it is appropriate to quote Vice Admiral John Morgan's and Rear Admiral Charles Martoglio's seminal "thousand-ship navy" article in the U.S. Naval Institute *Proceedings*: "Policing the maritime commons will require substantially more capability than the United States or any individual nation can deliver. It will take a combination of national, international and private industry

cooperation to provide the platforms, people and protocols necessary to secure the seas against the transnational threat."[2] They go on to note the importance of understanding the nature of the threat that the United States and most trading nations face. A coherent analysis should focus on two key points they highlight. The first is the potential for cooperation of private industry—or better, the opportunity forgone by failure to co-opt effectively the commercial shipping community in this effort. The second point involves the specific capabilities that community can bring to the table if allowed to. Maersk Line Limited (MLL), especially, wants to participate.

Admiral Morgan, the Navy's chief of strategy, has spoken on this topic several times and appears to clearly understand what the industry can offer and, more importantly, what is lost by failing to engage it. The very fact that this article appears in the *Naval War College Review* indicates that others in the Navy appreciate that potential. Perhaps the message has not diffused far enough, however, as few, if any, day-to-day tactical-level discussions mention the existence of Maersk or its brethren, except as objects (not part) of the maritime strategy. This is not to say that there has not been engagement, but engagement in formulating a strategy and participating in its execution are very different things.

The primary purpose of this article, then, is to help raise awareness among sea service officers of what the commercial shipping industry can offer. Secondly, it addresses the nature of the threat, which necessarily means the environment, which in turn, as a practical matter, is constituted by the daily operations of the commercial shipping industry. These two points—understanding the environment and commercial shipping participation in the maritime strategy—represent an intersection of naval and commercial operations, and one in which the upshot for global maritime security is not completely clear. Shippers have a very different worldview than that of the leaders of the U.S. Navy, which is understandable as their roles and missions differ, but that difference may not be as well appreciated as it should be. It is important to understand how those worldviews diverge.

WHAT DO COMMERCIAL SHIPPERS BRING TO THE TABLE?

In a word, they bring presence—overwhelming, persistent global presence. Maersk ships and others are out there in far larger numbers across more of the ocean than most people appreciate. A few statistics might bring home the point. The global Maersk shipping group alone—a single company—has a fleet of over a thousand ships of various types, including containerships, tankers, LNG/LPG carriers, RO/ROs, and ROPAX,* with about 120 vessels on order in yards around

*Respectively, liquified natural gas/liquified petroleum gas, roll-on/roll-off, and roll-on/roll-off passenger ships.

the world. Maersk takes delivery of, on average, forty new ships per year. Within that total the container fleet consists of over 550 vessels. The largest has a length of about 1,300 feet and a capacity of well in excess of eleven thousand twenty-foot equivalent units (TEU), in containers, the vast majority of which are inaccessible when the vessel is loaded. Consider the logistical challenges of external radiation scanning of such a vessel. To sense a container located on the bottom of the pile, a scanner must be able to see through ten other loaded containers (the ship is twenty-two bays wide) and down through fifty feet of water, and with sufficient sensitivity to discriminate which is the offending container.

The Maersk container fleet has operations in nearly three hundred ports around the world and makes thirty-three thousand port calls a year—every fifteen minutes, 365 days a year, a Maersk vessel is taking arrival somewhere in the world. To be more specific, in sub-Saharan Africa, an area of great interest these days, Maersk has regular service to forty-two ports in thirty countries (in other words, every country that has a coast except Somalia), and it has over thirty inland operations offices in an additional eleven countries. This does not include the activities of the oil and gas side of the business, which likewise has maritime operations spread across the globe—including, of course, the Gulf of Guinea, an area of the world that discussions of global maritime security scarcely ever fail to bring up.

To give context and a sense of scale, a couple of comparisons would be useful. In July 2005, Robert O. Work, a well respected expert on naval matters, in testimony before the House Armed Services Committee, put the total number of world's surface combatants of greater than two thousand tons displacement at the end of the previous year at 574.[3] While Mr. Work was making a different point, that number is relevant here since this size naval vessel would likely be of most use in policing the deep-sea maritime commons—the area where commercial shipping can be the biggest help or biggest challenge; these are the assets in the inventories of the world's navies available to implement the maritime strategy out in the open ocean, at least as relates to commercial shippers. Maersk alone, then, has more ships at sea by a wide margin than all the navies of the world combined.

Anyone with a knowledge of Maersk is probably not surprised at this, so let us look as well at the next biggest competitor in the container business. The Mediterranean Shipping Company (MSC), headquartered in Geneva, Switzerland, operates 362 ships. That means a single company located in a small, landlocked country in the Alps puts to sea a fleet larger by 25 percent than the U.S. Navy.[4] It also reminds us that in today's globalized world, what constitutes a "maritime nation" is a lot fuzzier than it used to be.

The domination of the global maritime commons by commercial shipping is readily seen in the latest density report on the AMVER website (www.amver.com). AMVER is a voluntary global partnership (administered by the U.S. Coast Guard) of seagoing interests working for collective self-preservation in a hostile environment. The merchant shipping community is used to working in partnerships, and AMVER is a great example of that, having been saving lives at sea for over fifty years. There are currently over seventeen thousand ships from 155 countries enrolled, and on any given day there are about 3,200 active voyages on the plot. Annually AMVER tracks well over a hundred thousand voyages. The monthly density report divides the ocean surface into one-degree squares and reports how many AMVER-participating vessels reported being in a given "patch" that month. The common perception is that commercial ships stick to densely traveled routes and the rest of the ocean is largely devoid of them; the AMVER density report shows how wrong that impression is. There are, of course, high-density routes where presence is almost continuous, but in fact very little of the ocean surface does not show at least some level of activity every month. The good news for the maritime strategy—if shippers are active participants in it—is that they are everywhere. The bad news for the strategy, if they are only the *object* of it, is that they are everywhere.

ENVIRONMENT AND WORLDVIEW

Virtually every recent article and official document describes the maritime commons as "insecure" and cites a need to protect the maritime pathways and ensure the unimpeded flow of goods. Shippers scratch their heads about that and wonder what all the hubbub is about. They do not see a threat out there. This is not to say there are not critical vulnerabilities that we need to take very seriously, such as port infrastructure. The Chinese, for example, are acutely aware of the importance of the port of Los Angeles to the Chinese economy (though it is doubtful that there is a similar appreciation here for the importance of Hong Kong or Singapore to the American economy).

Vulnerability and threat, however, are not the same thing. In fact, the real threats to maritime commerce are ill-conceived security measures that betray a fundamental lack of understanding about how the global maritime transport system works. The nature of trade in the current age of globalization—that is, the conveyance of intermediate goods used as inputs into production processes as much as of finished goods ready for retail—demands a hyperefficient transport system with vanishingly small tolerance for disruption. As an indicator of the efficiency of the shipping system, it costs less to ship a container from Hong Kong to Los Angeles than it does to truck it the last hundred miles inland to its final destination in the United States; moreover, the variation in delivery time for

the trip from Hong Kong to Los Angeles is measured in hours. This highly efficient supply-chain network of networks is critically dependent on a transport system that is in perpetual motion across all modes. A good analogy is the image in a once-familiar commercial for a major courier company of a web of interlocking conveyor belts shunting packages around in continuous motion until they get to their final destination. The intermodal shipping system needs to be thought of just that way. Everything is always in motion, and a stoppage anywhere propagates effects through the system, quickly becoming a stoppage everywhere. Any strategy that fails to consider that will likely do more harm than good; the cure must not be worse than the disease, and, returning to the worldview issue, shippers are not convinced we are even sick. If the goal of the "bad guys" is to disrupt commerce and cause economic harm, it stands to reason that if we accomplish their goals for them through our (anticipatory) reaction to them, they win.

The statistics mentioned earlier about the size of the Maersk fleet and its global persistent presence are relevant to this worldview. Maersk has a good vantage point from which to see what is going on out in the global commons; arguably it has a better view of such things than the U.S. Navy. In the debate about whose worldview is correct—is there a threat or isn't there?—the issue of who has the better vantage point must be addressed if the sort of partnerships with commercial-sector shipping interests that those who advocate the "thousand-ship navy" concept consider necessary are to be built.

WHAT ABOUT PIRACY?

No doubt piracy is a bad thing for the people it happens to, but that is not Maersk or its colleagues. Piracy is a large issue for regional, coastwise trade in some parts of the world, like Africa (hence the very visible problems for World Food and similar humanitarian organizations), but for international trade and the ships that facilitate it, not so much. Take a recent report of the Indonesian navy disrupting a pirate attack on a tanker in the Straits of Malacca. If we look deeper than the headlines, and unfortunately most will not, the "tanker" turns out to be a two-thousand-ton vessel loaded with cooking oil. We should make a distinction between a three-hundred-thousand-ton VLCC ("very large crude carrier") loaded with crude oil and a glorified barge loaded with a couple cups of Crisco. Unfortunately, the statistics do not. Worse, even an attack that one suspects might happen but does not actually transpire is still to be reported as an act of piracy. This makes statistics from the International Maritime Bureau deeply suspect. Certainly these statistics make the problem look worse than it actually is. There is an unfortunate tendency nowadays to conflate petty thieves in bumboats—something we have been dealing with for ages—with a broader concept

of piracy, also making the picture look worse than it does from a shipper's perspective.

What is actually worrisome, however, is the issue of stowaways, an area where the two worldviews are probably aligned, although for different reasons. Stowaways are a big problem in places like Africa—bad enough that companies like Maersk frequently rely on private security (British officers and Gurkha troops, at not insignificant cost) to help deal with it. Dealing with stowaways requires improving local port security, which in turn means capacity building in local law enforcement—whose officers usually act as ticket takers for would-be stowaways rather than as the deterrent they are supposed to be.

TRANSPARENCY

It is often claimed that legitimate shipping should welcome transparency. Yes and no. For normal operations in the liner trade—the realm of the common carriers—transparency is the normal and necessary mode of operation; these lines all post their schedules on their websites. However, for ships operating in the tramp trade in search of cargo on the spot market, transparency is problematic. Vessel position is a source of competitive advantage and certainly a source of leverage in negotiations with cargo interests. These interests, particularly in the bulk and oil markets, would love to have full visibility into where potential vessels for their cargoes are, and there are clear indications that some of them would pay for that information. It is likely also that any ship, including legitimate vessels operating in full compliance with international law in the normal conduct of business, would have reasons to be wary of transparency that could be used to single it out in an interdiction program. For example, if in the event of a tussle with China over Taiwan the United States were to decide to interdict the flow of oil to that country—something the Chinese worry about a great deal—any system that would allow authorities to identify all vessels carrying oil consigned to China regardless of location, flag, or flag-state sympathy for U.S. interests in the conflict, and that would make those vessels targets of the interdiction effort, would arouse suspicion that would have to be taken due account of.

This does not mean Maersk and its brethren are not willing to help navies and coast guards build maritime domain awareness (MDA). Maersk has proposed ideas for trial programs and even offered the use of its ships to test the ideas of others. As an example, Maersk is currently moving forward with trials on several of its vessels of innovative MDA technology developed by Lockheed Martin that addresses some of the limitations of automatic identification systems (AISs). Recently Maersk was asked by American naval authorities in Naples if it would allow AIS tracking receivers to be put aboard its ships to see what data could be generated; Maersk readily agreed.

This highlights another capability of commercial shippers that is not well appreciated. Due to the large numbers of ships they operate globally, grouped in regular service offerings, commercial shippers can do controlled experiments on a scale beyond anything the U.S. Navy could on its own. They can quickly develop data that would otherwise take years to generate, if it could be done at all. Lastly, shippers can allow small numbers of naval officers to ride their vessels in areas of the world that are of interest. This approach would decouple persistent naval presence in an area from U.S. Navy assets and allow naval officers to develop a vast amount of local knowledge of the waterfront in a low-key way, and for very little cost. If cooperating navies struck such deals with their flag-state shipping companies, there are few places, if any, to which naval officers could not get access. Shippers can also act, as Maersk does now, as training venues for Coast Guard, Navy, and law enforcement personnel, as well as participate in exercises. Maersk was a participant in a recent homeland security exercise called NOBLE RESOLVE, for example.

Maersk is now participating in a program with the British Ministry of Defence wherein it places small devices, about the size of a laptop computer, on a few of its vessels, including some flying the U.S. flag. The device is completely self-sufficient; it is independent of all ship systems and power, having a battery that lasts seven years. Crews simply peel the backing off its adhesive surface and slap it on a bulkhead. With this device the British can keep track of where Maersk's ships are in real time, all the time. All the company has to do is avoid painting the device, which admittedly is a challenge for seamen. This program grew from a desire to keep track of ships carrying British military equipment—there are understandably places the British would rather we not go with their equipment on board. Of note, the United States has no comparable program for vessels carrying U.S. military equipment, but Maersk would be happy to participate if there were. Considering that in 2006 the Department of Defense alone shipped almost a quarter-million containers through the commercial transport system, much of it to support the effort in Iraq, perhaps it is not a bad idea.

"AIS," mentioned previously, is probably the most abused abbreviation in the whole MDA realm. Let us end, then, with a few remarks about automatic identification systems. AIS data can certainly be a critical input for a broad picture of what is going on "out there." Indeed it is data that needs to be captured and analyzed, but the limitations need to be understood. Of course, it is well known that compliance with AIS is far from universal, and it is fairly common to encounter ships that do not have it turned on; if all we do is collect AIS data, we miss that group of actors altogether. But even more importantly, AIS is easy to spoof. A recent report claims that upward of 30 percent of all AIS data is incorrect.[5] In 2005, concern about false AIS data led maritime authorities in Singapore, remembering

that AIS was originally intended as a navigation and collision-avoidance system, to issue a flag-state notice warning of the inaccuracy of AIS data.

Commercial shipping is the preponderant presence on the global maritime commons today; it is in many ways the reason a maritime strategy is needed at all. Commercial shippers know that they represent overwhelming and persistent global presence. They do not want to be simply the passive objects of the new maritime strategy. They would far rather be active partners in implementing a strategy that furthers the collective security goals of all states while not jeopardizing the economic goals of any state in the process.

NOTES

This article is adapted from a presentation given at the Thirty-seventh Institute for Foreign Policy Analysis–Fletcher School Conference on National Security Strategy and Policy, with sponsorship of the Naval War College and the Defense Threat Reduction Agency, in Washington, D.C., on 26–27 September 2007.

1. Alfred Thayer Mahan, "Considerations Governing the Disposition of Navies," in *Retrospect and Prospect* (Boston: Little, Brown, 1902), p. 144.
2. John G. Morgan, Jr. [Vice Adm., USN], and Charles Martoglio [Capt., USN], "The 1,000-Ship Navy: Global Maritime Network," U.S. Naval Institute *Proceedings* 131 (November 2005), p. 15.
3. Robert O. Work, "To Take and Keep the Lead: A Naval Fleet Platform Architecture for Enduring Maritime Supremacy" (Washington, D.C.: Center for Strategic and Budgetary Assessments, December 2005), p. 84, available at www.csbaonline.org.
4. As of November 2007, as given in the firm's website, at www.mscgva.ch/.
5. "Reliability of Ship-Identification System in Doubt," *TradeWinds*, 7 September 2007, p. 42.