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**THE USE OF FOREIGN-FLAGGED OR FOREIGN-OWNED SHIPPING IN U.S.
MILITARY SEALIFT: RISKS FOR THE COMBATANT COMMANDER**

by

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CIV, Department of State

A paper submitted to the Faculty of the Naval War College in partial satisfaction of the requirements of the Department of Joint Military Operations.

The contents of this paper reflect my own personal views and are not necessarily endorsed by the Naval War College or the Department of the Navy.

Signature: _____

October 30, 2008

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ABSTRACT

Sealift will inevitably be a major component of transporting U.S. military forces to overseas deployments. Of particular concern for the future is the decline in the number of active U.S. mariners, and that many U.S. shipping lines are now foreign-owned as well. For a number of reasons, the U.S. has used foreign-flagged shipping in the largest deployments, including Desert Shield/Desert Storm and Operation Iraqi Freedom. Foreign-flagged shipping poses risks in terms of its potential availability, reliability, and vulnerability. Foreign-owned shipping also poses difficulties because risks to the ships might discourage owners from making them available for sealift. Some risks from using foreign-flagged shipping were observed during both major operations against Iraq but they proved to be moderate, and some of the mitigation strategies employed by the U.S. had success. Nonetheless, operational situations where foreign-flagged shipping could pose a greater risk than in the past include operations which would require greater numbers of tankers, of which the U.S. has a shortage, and operations against opponents with significant undersea warfare capabilities. Because the use of foreign-flag shipping has become a fact of life in sealift, U.S. commanders will need to calculate this risk into their planning.

Despite a long-term policy to favor the use of U.S.-flagged shipping in military sealift, the observed fact is the military has regularly used foreign-flag shipping. The long-term decline in the size of the U.S. merchant marine, largely for objective economic reasons, has meant some portion of military shipments in recent operations (particularly large operations) needed to be shipped on foreign-flag maritime carriers. Even many of the shipments using U.S.-flag carriers fell under some element of foreign control because many U.S. shipping lines are now subsidiaries of foreign companies. Policy makers have been concerned to maintain the ability to ship on U.S. shippers, and a number of mitigation schemes have been proposed and some adopted. This paper will argue, as some others have, that the use of U.S.-flagged, and –owned shipping alone is simply no longer possible in all contexts – the use of foreign-flagged shipping for military sealift is a fact of life.¹ Certainly the U.S. Government should do what it can to use as much U.S.-flagged and –owned shipping as possible, but the decision whether or not to use foreign-flagged shipping falls to supporting commands like USTRANSCOM. The combatant commander will need to calculate the risks that come with use of foreign-flagged and –owned shipping into his planning. This paper seeks to describe and evaluate these risks.

Part I – The Problem of Foreign-Flagged and Foreign-Owned Shipping in Sealift

The early 20th century British writer on naval strategy Sir Julian Corbett once argued the principal value of sea power was transporting one's army across water barriers or preventing one's enemy from doing so: "Since men live upon the land and not upon the sea, great issues between nations at war have always been decided--except in the

rarest cases--either by what your army can do against your enemy's territory and national life, or else by the fear of what the fleet makes it possible for your army to do."² While Corbett's view overall may under-rate other aspects of sea power, it is true that the United States' ability to move its modern military force across the globe hinges to a great deal on maritime transport.

Air transport capacity also plays an important role, and the U.S. military has proposed concepts like the Future Combat System to make a significant number of the Army's combat units air-transportable. However, given the large potential cost for both adding new air transport capacity and conversion of existing forces, along with concerns about the need for armored transport, as surfaced in Iraq (e.g., MRAP vehicles), sealift will continue to be a necessary major component of moving U.S. forces across the globe. For example, in January-June 2004, 240,000 troops were re-deployed in and out of Iraq. Sealift moved 84 percent of this operation, with 210 ships transporting 1.8 million tons of cargo.³ In other operations, the percentage borne by sealift has been higher, usually over 90 percent.⁴ Cost also is a major factor strongly favoring sealift. A recent review of the U.S. Maritime Administration's (MARAD) programs by the Office of Management and Budget concluded the cost of delivering cargoes by sea is 1/10th the cost of air shipment. They noted that the cost of airlifting 2.4 million MREs to Afghanistan was \$7.34 per meal, while shipping by sea and land would have cost 15 cents.⁵

The U.S. combatant commander who is putting together a campaign or operation faces the classic factors of time, space, and force. If he is using ground or air assets, especially in a larger operation, there will be a requirement for sealift to move their equipment and supplies. In any operation, space from where the troops and their

equipment is located to the area of operations is more or less a given; so the commander must look for ways to ensure he can maximize the force transported in the shortest time. The combatant commander, at the end of the day, does not care about the cost or type of shipping used. He or she just wants the force transported quickly and reliably.

Traditionally, the United States has preferred to rely on its own merchant fleet to transport military cargo. This preference was codified in the Cargo Preference Act of 1904, which requires that all military cargo be carried on U.S.-flag ships, if these are available and charge rates that are not unreasonable. The U.S. experience upon entering World War I in 1917 boosted this policy -- we found a major shipbuilding program was needed, as other states had called their merchant fleets home for their own war efforts and were not available.⁶ In addition, the Jones Act of 1920 supports U.S. shippers by requiring that all cabotage traffic (between domestic ports) be carried on U.S. ships; the Cargo Preference Act of 1954 also requires that at least half of U.S. government shipments (including such shipments as food aid) be shipped on U.S. ships.⁷ This legislation has sought to ensure that all U.S. Government operations have a secure source of shipping with U.S. crews, but they also help to support the U.S. maritime and shipbuilding industries. This continues to be U.S. policy: the National Sealift Policy of October 1989 mandates that adequate sealift resources be available to meet national economic and security requirements during times of war or national emergency. The Sealift Policy further proposed that sufficient U.S. privately-owned sealift with reliable crews should be available to meet U.S. military requirements.⁸

Part II – The Use of Foreign-Flag and Foreign-Owned Shipping in Military Sealift

Traditionally, merchant ships are registered by states, which regulate their operations, crewing, and in some cases, mandate where the ship must be built. Up to the end of World War I, ship owners registered vessels in their home country. In 1919, a Panamanian-registered vessel (reportedly a rum-runner designed to circumvent U.S. Prohibition restrictions) became the first ship to take on a “flag of convenience”⁹, and since then such “open registry states” (primarily Panama, Liberia, Cyprus, Honduras, the Marshall Islands, and the Bahamas) have taken an increasing role in the registry of ships, particularly after the 1973 freeing of exchange rates.¹⁰ Although the growth of open registry flagging appears to have leveled off in the past decade, flags of convenience now account for over 60% of global shipping.¹¹ The reasons for adopting flags of convenience are primarily economic: significantly lower taxation than in the U.S., few restrictions on crewing and where the ship may be built, and advantages on some trade routes for a neutral flag vessel. In addition, lower taxation may increase access to financing, crucial in a capital-intensive business like shipping.¹² Crewing is one of the major components of a shipper’s operating costs: a recent international study estimated that a U.S. merchant captain costs approximately 19 times what a Pakistani captain costs.¹³ While the U.S. mariner may be extremely highly-skilled and well-trained, it is doubtful in economic terms that he is 19 times more efficient than his Pakistani counterpart. Until Congress amended the Merchant Marine Act in 1979, U.S.-flagged ships also had to be built in higher-cost U.S. shipyards.¹⁴

Given this cost disadvantage in a competitive, tight-profit-margin business, it is not surprising that the U.S.-flagged merchant fleet has dwindled. After World War II, the

United States had the largest merchant fleet on Earth, with 27.5 million deadweight tons of capacity.¹⁵ Even though the U.S. accounts for over 14 percent of seaborne commerce, the U.S.-flagged fleet today ranks 15th (in terms of oceangoing vessels), with 12.27 million deadweight tons capacity, only about 1.3 percent of world shipping capacity.¹⁶

In terms of ownership, U.S. shipping companies also have slipped in their world ranking, but not as sharply as with U.S.-flagged vessels. This is because many U.S. shipping companies utilize flags of convenience for many of their vessels. According to the United Nations, in terms of ownership, the United States in 2007 ranked 6th, with 48.3 million deadweight tons capacity, or 4.93 percent of world total. Approximately 52 percent of the U.S.-owned fleet flew foreign flags.¹⁷ U.S. policy has long recognized the role of such U.S.-owned foreign-flagged shipping in the concept of the Effective U.S. Control (EUSC) fleet. Policy makers believed that after calling upon U.S.-flagged shipping, they could turn to these EUSC ships that were “effectively controlled” by U.S. companies. However, there is debate whether the EUSC fleet could supplement military sealift needs. MARAD’s Administrator has argued that because much of the EUSC fleet is dry-bulk carriers, they are not useful in supporting deployments.¹⁸ Others have argued that for some categories of vessels, particularly tankers, the EUSC fleet might be a better option than foreign-owned vessels.¹⁹

In today’s globalized economy, business ownership tends not to be strictly national, and the shipping industry is no exception. The issue becomes more complicated, because in the shipping industry, the use of multiple holding company structures is not uncommon, which makes it difficult to ascertain the ultimate identity or nationality of the owners. In recent decades, many of the large U.S. shipping lines (e.g.

American President Lines, American Roll-On Roll-Off, Lykes Lines, Sea-Land) have come under foreign ownership, although in almost every case the new owners have maintained ownership under a U.S. subsidiary, no doubt in part to maintain access to Department of Defense (DoD) contracts.²⁰ In these cases, these shipping lines' immediate management is likely to be American, even if the ultimate ownership is foreign. This circumstance could be important in evaluating risk – would decisions on whether to commit shipping to military sealift be made by the local U.S. management, or by the parent company overseas? The influence of foreign ownership among the U.S.-flag fleet is evident by examining the 60 ships enrolled in MARAD's Maritime Security Program (MSP), which is designed to ensure U.S.-flagged military sealift capability. Of these, at least 40 are from shipping lines that are subsidiaries of foreign companies.²¹

A range of U.S. Government programs are designed to ensure that the military has adequate resources of U.S.-flagged shipping. The Navy's Military Sealift Command (MSC) operates a fleet of 96 non-combatant, civilian-crewed ships related to sealift, including 42 ships in the Naval Fleet Auxiliary Force, 33 Prepositioning Ships, and 21 Sealift Ships. (However, longstanding USG policy is to utilize the last category for shipping sustainment only in rare cases, after opening tenders to commercial U.S.-flagged shipping.)²² This fleet, which is a mix of government-owned and chartered vessels, gives the MSC the capability to execute many deployments, particularly smaller-scale ones, with rapidity and without relying on commercial assets. In a number of recent smaller deployments, MSC has been able to operate largely without chartering outside vessels.

In addition, MARAD has programs that supplement MSC capabilities. MARAD operates the Ready Reserve Fleet (RRF) of 51 ships, which now includes the 8 Fast

Sealift Ships formerly operated by MSC. These ships are supposed to be activated within 5, 10, or 20 days, depending on their state of readiness. However, during Operation Desert Shield/Desert Storm, many of the 74 RRF ships were not activated in the mandated time, largely due to inadequately-maintained propulsion systems. One activated ship was 45 years old.²³ Since then, facing declining budgets, MARAD has reduced the size of the RRF and retired many older vessels from the program. MARAD continues to mobilize the RRF. For example, in January-February 2004, 21 RRF vessels were activated to support the rotation of forces in and out of Iraq. RRF vessels also are activated for exercises.²⁴ MARAD also maintains the 60-vessel MSP program, originally established in 1996 for ten years and now extended until 2013, under which U.S.-flag ship-owners agree to make their ships available for sealift purposes in return for annual subsidies. Forty MSP vessels were activated during Operation Iraqi Freedom (OIF) during 2003-04.²⁵ Finally, MARAD operates the Voluntary Intermodal Sealift Agreement (VISA), an industry-government partnership that obliges ship owners to make U.S.-flagged vessels and infrastructure available in stages when the program is activated, in return for preferences in transporting DoD cargoes. VISA was not activated during OIF, although some VISA participants did carry cargo for the operation.²⁶ If VISA was not activated for such a major operation, one wonders how much the program is an effective backstop for military sealift. Since the government would presumably need to offer rates to compensate U.S. shipping lines for lost liner business, cost factors may be making VISA unattractive to activate.²⁷

Despite these U.S. Government programs, and the legal restrictions mandating use of U.S. flag carriers, nonetheless during recent operations, some U.S. supplies and

equipment were carried on foreign-flag carriers. During Desert Storm/Desert Shield, from August 1990- March 1991, 196 ship loads or 26.58 percent of overall cargo was carried on foreign-flag ships. In the last month, the foreign-flag percentage was over 69 percent of total tonnage shipped.²⁸ This latter increase probably reflected that the later shipments were largely for sustainment. In the years after Desert Shield/Desert Storm, the USG expanded capacity at MSC, and introduced the MSP and VISA programs. Nonetheless, of the 57 vessels chartered for OIF, 20 were foreign-flag, primarily because of shortages of roll-on/roll-off ships.²⁹ U.S. carriers complained that some \$86 million in charters had been won by foreign-flag roll-on roll-off carriers in OIF, although the military countered that U.S. companies had an opportunity to compete for open tenders and because of the large volume of cargo transport, foreign-flag carriers were required.³⁰

There are a number of reasons why foreign-flag carriers had been used. First and foremost, logistics officers had to fulfill the mission, and if it required foreign-flag carriers, then that was the cost. There was also a certain bifurcation in the government's mandates. The U.S. Government was committed to fulfilling the goals of supporting a U.S. merchant marine, but it also was committed to saving taxpayer dollars, so it had to consider chartering foreign-flag ships, especially when U.S.-flag carriers did not bid or asked for rates that were not competitive.³¹ Finally, there was an overall practical problem. The U.S. shippers in recent years have been largely engaged in liner operations, which involved repeated service from point a to point b and return. Asking them to divert to a military sealift to point c required the U.S. shippers to give up their liner business for a one-direction charter -- some U.S. carriers found these economically unattractive. In addition, tenders for MSC charters have often been issued on a very short

fuse, which *de facto* in some cases has limited the ability of U.S. shipping lines to compete equally for MSC business with the more numerous foreign-flagged carriers.³²

Another aspect causes great concern for the ability of the U.S. to use its own ships: the shortage of U.S. mariners. One of the most attractive aspects of using U.S.-flagged shipping for the U.S. military has been their U.S.-staffed crews. American crews provide the advantages of not just skill, but also simplified communication (the same language), overall dedication (patriotism), and simpler security (a common understanding of the risks in a military deployment). With the overall decline of the American merchant marine, the number of U.S. mariners has declined sharply. This became very evident during Operation Desert Storm/Desert Shield, when mobilizing the RRF severely taxed resources of qualified U.S. mariners. In order to mobilize this fleet, MARAD had to comb union halls and call back retired mariners to crew the ships, in part because only older mariners had the experience to run some of the old steam propulsion systems used on older RRF craft.³³ As a result, many of the mariners recruited for this operation were in their 60s or 70s, at least two were in their 80s and the oldest was age 92.³⁴ However, there is some doubt a similar mobilization of retired mariners could be replicated today, as the population of U.S. mariners continues to shrink.³⁵ The new international Convention on Standards for Training, Certification, and Watchkeeping (STCW) means many retired mariners no longer are able to maintain their licenses.³⁶ It is perhaps indicative of the decline that the Chief of Staff of the MSC told a union audience in 2005 that the MSC is now the single largest employer of U.S. mariners.³⁷ The atrophy of the U.S. merchant marine, in particular its crewing, has reached such a state that any very large operation will likely have to use foreign-flagged and -crewed shipping.

Part III – What Risks are Associated with Foreign-Flagged and Foreign-Owned Shipping, and Have They Been Observed in Practice?

Since the debate over using foreign-flagged shipping is hardly new, one should look at both the risks posited by various observers, and those that have been observed in recent practice. It is also worth noting what measures U.S. forces have taken to mitigate these risks. In general, risks for using foreign-flagged shipping in sealift seem to fall in three general categories: availability, reliability, and vulnerability. Throughout this discussion, we need to look where there may be differences between the problems of foreign-flagged shipping and that of foreign-owned shipping.

To be fair, one of the overall advantages for military sealift of foreign-flagged ships is their large numbers, which means they can be available in cases where U.S.-flagged shipping is not on hand. As shipping is a cyclical business, where overall demand can exceed supply (which adjusts more slowly due to the high capital costs and long lead times for building a ship), there can also be occasions where shipping is in short supply. This was recently the case in 2007 and early 2008 where the volume of U.S. exports put stress on available shipping capacity. Some exporters (particularly of bulky goods like agricultural machinery) found long wait times to deliver goods overseas.

Foreign states can restrict their registered ships from participating in military operations. In Desert Storm/Desert Shield, a wide range of nations supported the effort and ships from 34 nations were chartered to ship equipment and supplies. However, some major partners in this operation did not provide ships for charter, in particular the USSR and Japan (which had a large fleet of roll-on/roll-off ships very useful for

transporting military equipment), although Japan donated some sealift services.³⁸ (In Japan's case, opposition by maritime unions played a role.³⁹) In addition, Germany only supplied 4 ships for U.S. charters. In a future conflict, where support for a U.S. effort might be much less than in 1991-92, there is the distinct risk that other nations might refuse to make ships available or discourage their registered ships from participating. In coalition operations, another risk is that partners may soak up either U.S. sealift assets or available foreign-flag assets, as most do not have integrated sealift assets of their own. This actually happened with the U.K. deployment to Bosnia, where they had to charter U.S. RRF assets. The U.K. subsequently set up standing charters (analogous to the U.S. MSC program) to move their troops for deployments and peacekeeping. The Italian deployments to OIF also involved a scramble for available assets, requiring U.S. help.⁴⁰

There is no indication that foreign owners of U.S.-flagged ships declined for political reasons to make ships available for an operation, either in Desert Shield/Desert Storm, or in subsequent operations. However, there was a threat by a Danish legislator to pass measures to prevent Maersk, which owns substantial MSP assets, from participating in OIF.⁴¹ Clearly the foreign owners of U.S.-flagged ships have an incentive through programs such as MSP and VISA to maintain access to DoD contracts for their U.S. subsidiaries. It seems more likely that economic, rather than political factors would weigh more heavily with foreign owners. If they perceive that delivering cargoes into a hostile environment puts their vessels at substantial risk, their willingness to accept U.S. military charters could be reduced.⁴²

So far, this risk from owners has not been conclusively observed in practice, although the unwillingness of U.S.-flagged liner operators to take military charters might

include the risk to their assets (vessels) as a contributing factor. Some authors have noted that the willingness of foreign-flagged or foreign-owned vessels to participate in an operation has not been tested in a high-risk environment. In recent years, the U.S. has not faced an adversary with undersea warfare capabilities – the risk has been either very low (Korea, Vietnam, Bosnia, Kosovo, Afghanistan) or only moderate (Desert Shield/Storm, OIF). An operation facing a more formidable opponent, like a Taiwan Straits scenario, might greatly elevate risk and make foreign-flagged or –owned shipping less available.⁴³

Military commanders also may face risk because they require certain categories of vessels that can only be supplied by foreign-flagged carriers. A particular vulnerability may lie with tankers. The size of the U.S.-flagged tanker fleet has rapidly declined, and is expected to decline further with new requirements for double-hulled tankers.⁴⁴ In Desert Storm/Desert Shield, the MSC moved 6.1 million tons of petroleum products, but 39% of the ships used to move this cargo were foreign-flagged.⁴⁵ Some estimate a shortfall of U.S. tanker capacity for sealift already exists.⁴⁶ In addition, some authors have noted the U.S. faced a relatively favorable situation in Desert Storm/Desert Shield and OIF because these operations were in a region where petroleum products were widely available.⁴⁷ A greater reliance on foreign-flag tankers might thus be a greater risk for commanders operating in other regions of the world.

Another reason for preferring U.S.-flagged shipping is its presumed better reliability compared to foreign-flagged ships. Some have argued foreign registry states, particularly the “open registry” states, have relatively lax standards for the physical maintenance of ships. The Chairman of the International Commission on Shipping argued that the International Maritime Organization has significantly less power in

enforcing standards than other international transport organizations, like ICAO in the aviation field.⁴⁸ However, the “open registry” states dispute this, and some have noted the greater age of many ships flying the U.S.-flag compared to other registry states.

There has been great concern that foreign-flag crews are not as reliable: they do not have the training and skill of U.S. mariners, but also could be less willing to serve in an area where hostilities might be expected. This is akin to many concerns related to the reliability of having contractors on the battlefield: “One essential key difference between exit by private employees and by those in public institutions is that leaving a PMF [privatized military force] post is not desertion -- punishable by prosecution and even death, but merely the breaking of a contract with limited enforceability.”⁴⁹ Such balking by foreign-flag crews happened on 13 occasions during Desert Shield/Desert Storm. Of those ships that objected to sailing into the Persian Gulf, 3 feeder vessels had their cargoes transshipped but the cargo still arrived on time. Another 6 ships’ crews were convinced by the U.S. military that it was safe to proceed and had no delays. One Bangladeshi freighter had its crew jump ship before leaving the U.S., and its contract was cancelled. Two other ships balked but eventually proceeded to their destinations, albeit with delays. Only one ship, the Qatari-flagged *Trident Dusk*, refused to proceed beyond Muscat, and the cargo was trans-loaded to a Panamanian ship. In this case, one of the difficulties was no one could determine the ultimate beneficial owner of the ship and so were unable to press the crew to proceed. In all, USTRANSCOM estimates it suffered 34 days’ total delays from balking, and there was no net effect on the war effort.⁵⁰

There were no reported instances of foreign-flagged ships refusing to enter war zones in OIF.⁵¹ However, a different reliability problem surfaced for two Netherlands-

owned, Cypriot-flagged ships chartered to carry equipment for the 4th Infantry Division to Turkey. Because of Turkey's ongoing dispute over Cyprus, the Turks refused to allow the ships into their ports. They were diverted to a Greek port, where anti-war sentiment was high; the local mayor threatened to stop any trans-shipment. Only after significant diplomatic efforts were the ships re-flagged and allowed to proceed to their destination.⁵²

In the future, there may be concerns that the nationality of foreign flag crews may pose special problems for reliability. Currently, the nationalities noted in Figure 1 dominate maritime crews. However, the then-Administrator of MARAD stated he expected the recent introductions of new international crew standards in the STCW would cause China and Russia to overtake the Philippines as the leading providers of merchant mariners.⁵³ If this happens, it could have significant implications for reliability in a number of potential conflicts.

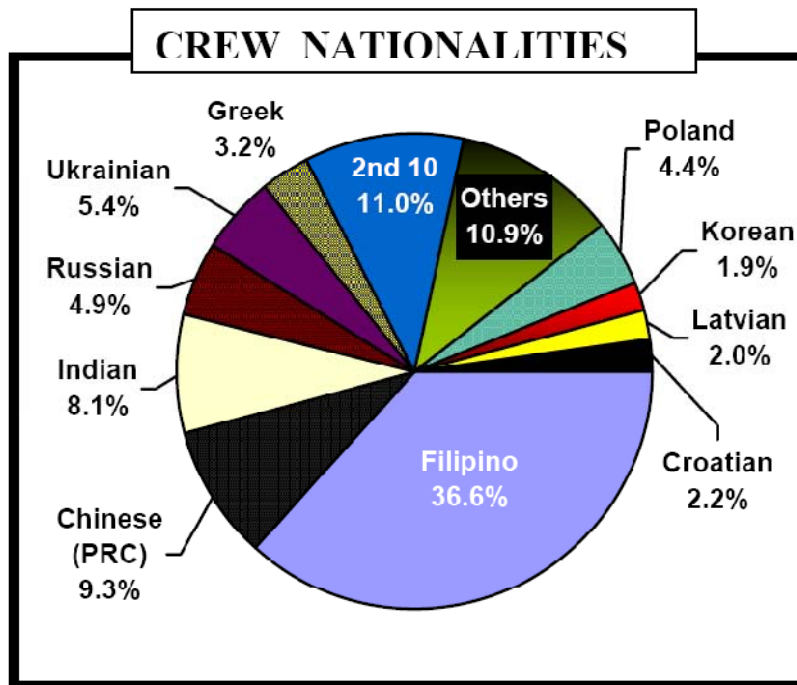


Figure 1 – (Source: MARAD)⁵⁴

Finally, there are concerns that foreign-flagged shipping may have a number of greater vulnerabilities. With many crews, language has been a significant barrier and can impede proper command and control. Unlike MSC and RRF ships, foreign-flagged ships have no classified communications, so relaying messages can result in security vulnerabilities.⁵⁵

While MSC crews have limited small arms and training in using weapons, most foreign-flag crews have little means of defending themselves.⁵⁶ There were incidents of piracy against U.S.-chartered foreign flag crews shortly before and after Desert Shield/Desert Storm.⁵⁷ Foreign-flag crews also need to be vetted to prevent infiltration by hostile or terrorist organizations. A 2004 investigation of U.S. mariners revealed widespread document fraud and some with ties to terrorist groups,⁵⁸ and one can only presume that this risk is even greater with less-regulated foreign-flag carriers. In addition, there is concern about pilferage – it could range from simple theft, to diversion of military arms cargoes to hostile actors.⁵⁹

Clearly there are mitigation strategies that can be employed to counteract some of these inherent weaknesses in foreign-flagged shipping. In OIF, security concerns were allayed by the deployment of teams (largely from the Puerto Rico National Guard, a unit with a high proportion of police officers) called “Guardian Mariners.” Overall, these units reportedly performed very well, and also added trained response in case of chemical, biological, or radiological attack.⁶⁰ In theory, private security contractors could also be used in this role, although this would amplify concerns that have been raised about rules of engagement for the “Guardian Mariners.”⁶¹ In addition, there was vetting of the crews of U.S. – and foreign-flagged ships through the Department of

Homeland Security's El Paso Intelligence Center.⁶² The lower record of incidents regarding problems with foreign-flagged ships in OIF seems to bolster the conclusion that these mitigation strategies probably had some effectiveness.

Part IV – Conclusions and Recommendations

Even though the U.S. merchant marine has continued to decline, the provision of substantial resources (e.g. to MSC and MARAD) has preserved a domestic sealift capability that allows much of the U.S. military's sealift to be provided by U.S.-controlled entities. Although the cost of buying or subsidizing such sealift costs a few billion dollars every year, this capacity has allowed the U.S. to avoid using foreign sealift as much as possible, except in the larger deployments.⁶³ As such, the USG policy has provided great flexibility to combatant commanders. However, it is also obvious that not every capability can be provided from U.S.-flagged shipping, and the fact that much of U.S.-flagged shipping is now effectively foreign-owned presents possible risks. This means that commanders must expect, especially where they must mount large operations, go into areas without indigenous petroleum supply, or where the environment is very hostile (e.g., Taiwan straits), there will be risks to using foreign-flagged shipping. Experience shows that these risks (including those of foreign-owned shipping) are moderate and can be mitigated, although clearly there could be situations where these risks are more salient. For foreign-owned shipping, there are few imaginable reliability or vulnerability risks, although a possibility exists that a foreign owner might not make his ships available for sealift, most likely for economic reasons (risk to assets) than for political reasons.

There are two counter-arguments that might be proposed to this analysis. One would be that since there have been so few significant disadvantages to foreign-flagged shipping observed (even the problems in Desert Shield/Desert Storm proved not to be significant) that the combatant commander need not regard this aspect of sealift as a significant risk. It is true the risk has been limited so far. However, as noted above, some of the conditions (e.g. operating in petroleum-rich regions) have limited our risks, nor have we operated against an opponent with significant undersea warfare capability. It would seem imprudent to ignore foreign-flagged shipping as a risk factor.

Over the years, many experts have also suggested that foreign-flagged shipping is a major danger, and thus great efforts should be made to resurrect the U.S. merchant marine, either through direct USG ownership of shipping (à la MSC) or through increased subsidies, to ensure our deployments overseas are not threatened. To some extent, the USG has followed this policy by maintaining and building up MSC and VISA, but there are fiscal limits to such policies. With the U.S. merchant fleet so small, some of the political factors that kept its subsidies in place may well be in danger now that the industry is much weaker, in addition the budget climate for the next few years looks dire indeed. Again, there is no sign that a major new effort to preserve U.S.-flagged sealift is in the offing, thus one should expect that foreign-flagged shipping will gradually become an ever-larger part of U.S. sealift.

Therefore, it seems prudent for combatant commanders to take note of the possible risks in sealift. Foreign-flagged sealift can and should be minimized, but it is likely always to be part of the sealift equation. There is always the chance that foreign-flagged or –owned vessels as part of that sealift might not be less available, not as

reliable, or more vulnerable than their American counterparts. These risks will certainly vary among operations, but among larger operations and those where there is a greater need for tanker transport, the commander may want to put a higher risk factor for delays or even shortfalls in shipping equipment and supplies because of our dependence on these foreign-flagged and –owned assets. Clearly, the political environment surrounding each deployment needs to be considered, and then cross-referenced with the use of foreign-controlled sealift. Close consultation with USTRANSCOM would be important. At present, these risks seem largely manageable, but there are probably situations where they could be more significant.

NOTES

¹ See for example, Stanley H. Wolosz, "Foreign Shipping and Terminal Operations Support to the Military: Value-Added, Vulnerabilities, and the Way Ahead," Paper, (Newport, RI: Naval War College, October 23, 2006), p. 11, or Gregory S. Thornton, "Foreign Flag Shipping: A Risky Business for the Combatant Commander?," Paper, (Newport, RI: Naval War College, February 14, 2005), <http://www.stinet.dtic.mil> (Accessed September 21, 2008).

² Julian Stafford Corbett, *Some Principles of Modern Strategy*, (London, 1911), p. 16. Quoted in: William Hawkins, "The Army's Interest in Seapower," *Army*, Vol 55. No. 12, December 2005, p. 9. <http://www.proquest.com> (Accessed September 15, 2008).

³ Hawkins, p. 10.

⁴ Interview, VAdm (ret) James Perkins, October 28, 2008.

⁵ Office of Management and Budget, "Maritime Security Program Assessment," Program Code 10002252, 2004, Section 4.4, <http://www.whitehouse.gov/omb/expectmore/detail/10002256.2004.html>, (accessed September 10, 2008).

⁶ Kevin S. Cook, "Meeting the Strategic Sealift Needs of the U.S. with a Limited Merchant Marine," Strategy Research Project, (Carlisle, PA: US Army War College, 1999), p. 4.

⁷ Wolosz, p. 4.

⁸ Andrew Gibson and Arthur Donovan, *The Abandoned Ocean: A History of United States Maritime Policy*, (Columbia, SC: University of South Carolina Press, 2000), pp. 247-8.

⁹ Charles N. Dragonette and Daniel Y. Coulter, "World Merchant Shipping: Multinationalism Triumphant", paper for Transportation Research Board Annual Meeting, 7-11 January 1996, Session 189, p. 9. This first flag of convenience ship, the "Belen Quezada" never served its intended purpose. It had the misfortune of sailing first to a port in Costa Rica. Shortly after arriving in port, a border war started between Panama and Costa Rica, and the Costa Rican government seized the ship.

¹⁰ Dragonette and Coulter, p. 26.

¹¹ House, "Vessel Operations under Flags of Convenience and Their Implications on National Security" Hearing before the Special Oversight Panel on the Merchant Marine of the Committee on Armed Services, House of Representatives, 107th Congress, 2nd Session, Hearing held June 13, 2002, HASC 107-421, (Washington, DC: U.S. Government Printing Office, 2003), p. 10. William A. Lovett, "Maritime Rivalries and the World Market" in William A. Lovett, ed., *United States Shipping Policies and the World Market*, (Westport, CT: Quorum Books, 1996), p. 18.

¹² Lovett, p. 17.

¹³ N. Shashi Kumar, "World Shipping Competition," in William A. Lovett, ed., *United States Shipping Policies and the World Market*, Westport, CT: Quorum Books, 1996, p. 102. Gibson and Donovan, pp. 289-90, also present figures showing these large wage disparities also apply to other ship crew categories.

¹⁴ Robert C. Waters, "The Military Sealift Command Versus the U.S. Flag Liner Operations", *Transportation Journal*, Summer 1989, p. 28.

¹⁵ Lovett, pp. 8-9.

¹⁶U.S. Maritime Administration, “World Oceangoing Merchant Fleet by Top 25 Flag and Type, 2006: Vessels 10,000 Deadweight Tons and Greater”, (Washington, DC: U.S. Maritime Administration, 2006),

http://www.marad.dot.gov/Marad_Statistics/2007%20STATISTICS/Top%2025%20Flag%20of%20Registry%202006.xls, (Accessed October 19, 2008).

¹⁷ United Nations Conference on Trade and Development (UNCTAD), *Review of Maritime Transport 2007*, UNCTAD/RMT/2007 (New York: United Nations, 2007) , p. 32 http://www.unctad.org/en/docs/rmt2007_en.pdf (Accessed October 19, 2008). Note that UNCTAD’s statistics differ from MARAD’s in that MARAD’s only cover oceangoing vessels.

¹⁸ “House, “Vessel Operations” p. 24. Comment: to be fair, MARAD is an organization dedicated to supporting U.S.-flag shipping and the related shipbuilding industry, so one cannot be surprised that MARAD would take a dim view of the EUSC concept.

¹⁹ Henry S. Marcus, et al, *Increasing the Size of the Effective United States Control Fleet*, (Boston, MA: Massachusetts Institute of Technology, 2002), pp. 139-40.

²⁰ Amnesty International and TransArms, Research Centre for the Logistics of Arms Transfers, *Dead on Time – Arms Transportation, Brokering and the Threat to Human Rights* (London: Amnesty International, 2006) AI Index: ACT 30/008/2006, p. 45

²¹ U.S. Maritime Administration, “Maritime Security Program Fleet – April 17, 2008”, (Washington, DC: U.S. Maritime Administration, 2008) <http://www.marad.dot.gov/programs/MSP/MSP%20Fleet%204-17-08.pdf> (Accessed October 19, 2008). I looked at a number of websites relating to the individual companies to ascertain ownership. The 40 identified as non-U.S. clearly had foreign owners. The other 20 ships appeared to have U.S. owners, although further research might show that some of these also have foreign owners. Wolosz, p. 11 quotes a representative of American Roll-On Roll-Off stating that there is no U.S. line operating in the mainstream European and Asian trade that is under U.S. citizen ownership.

²² Military Sealift Command, “Ship Inventory”, (Washington, DC: U.S. Military Sealift Command, 2008), <http://www.msc.navy.mil/inventory/> (Accessed October 19, 2008).

²³ Wallace S. Reed, “U.S. Sealift and National Security” in William A. Lovett, ed., *United States Shipping Policies and the World Market*, (Westport, CT: Quorum Books, 1996), pp. 263-64.

²⁴ U.S. Maritime Administration, *Annual Report to Congress Fiscal Year 2004*, (Washington: U.S. Maritime Administration, 2004), p. 8.

²⁵ Ibid, p. 12.

²⁶ Ibid.

²⁷ Interview, VAdm (ret) James Perkins, October 28, 2008.

²⁸ James K. Matthew and Cora J. Holt, *So Many, So Much, So Far, So Fast: The United States Transportation Command and Strategic Deployment for Operation Desert Shield/Desert Storm*, (Washington: Joint History Office, Office of the Joint Chiefs of Staff and Research Center, U.S. Transportation Command, 1996), p. 116.

²⁹ House, “U.S. Transportation Command’s (USTRANSCOM) Airlift and Sealift Programs,” Testimony of Gen. John Handy, March 17, 2004, (Washington, DC: U.S. Congress, 2004) <http://www.stinet.dtic.mil> (Accessed September 21, 2008). Thornton, p. 5 gives the figure as 17 foreign-flagged charters.

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- ³⁰ U.S. Transportation Command, "Visa Executive Working Group (EWG) Minutes, 22 January 2004" http://www.transcom.mil/j5/ewg_04jan04.pdf. (Accessed September 25, 2008) Harold Kennedy, "Navy's Sealift Command Picks up the Pace", *National Defense* 88, Iss. 596, July 2003, p. 30. <http://www.proquest.com> (Accessed September 14, 2008).
- ³¹ Waters, p. 33. During Congressional testimony in 2004, General John Handy, then-commander of USTRANSCOM, made explicit that they regard use of foreign-flag shipping as a last resort. House, "U.S. Transportation Command".
- ³² Interview, VAdm (ret) James Perkins, August 29, 2008.
- ³³ Reed, p. 264.
- ³⁴ Antonio Oropeza and Brian E. DeLaney, "An Analysis of United States Maritime Industry and Its Ability to Meet National Security Strategy Requirements", Master's Thesis, (Monterey, CA: U.S. Navy Postgraduate School, March 2001), p. 88.
- ³⁵ Cook, p. 8.
- ³⁶ Interview, VAdm (ret) James Perkins, October 28, 2008. See also Cook, pp. 16-17, who identified STCW as a serious problem for the supply of mariners, although he made this analysis before these standards had been implemented.
- ³⁷ "MSC Official Credits Mariners, Predicts Substantial Job Growth", *Seafarer's Log*, September 2005.
- ³⁸ Matthew and Holt, p. 123.
- ³⁹ Ibid, p. 136.
- ⁴⁰ Amnesty International, p. 46.
- ⁴¹ Email, Timothy Pickering, MSC to D. Kramer, September 24, 2008.
- ⁴² Marcus, et al, p. 117, argues this is a distinct risk. However, these authors are making the case for greater use of EUSC ships, which means they would tend to elevate the risks of foreign-owned ships.
- ⁴³ Clifton H. Whitehurst, Jr., "Defining America's Military Sealift Capability: U.S. or Foreign Flag," *Defense Transportation Journal*, 57, No. 4, August 2001, p. 7. <http://www.proquest.com> (Accessed September 14, 2008).
- ⁴⁴ Marcus, et al, p. 10.
- ⁴⁵ Matthew and Holt, p. 126.
- ⁴⁶ Marcus, et al, p. 110.
- ⁴⁷ Reed, p. 265.
- ⁴⁸ House, p. 40.
- ⁴⁹ P.W. Singer, *Corporate Warriors: The Rise of the Privatized Military Industry*, (Ithaca, NY: Cornell University Press, 2003), p. 159.
- ⁵⁰ Matthew and Holt, pp. 136-7.
- ⁵¹ Thornton, p. 18.
- ⁵² Ibid, pp. 12-13.
- ⁵³ House, p. 25.
- ⁵⁴ U.S. Maritime Administration, "Foreign-Flag Crewing Practices: A Review of Crewing Practices in U.S.-Foreign Ocean Shipping," December 2006 (Washington, DC: U.S. Maritime Administration, 2006), p. 3.

<http://www.marad.dot.gov/Publications/2007/Crewing%20Report%20Internet%20Version%20in%20Word-update-Jan%20final.pdf> (Accessed October 22, 2008).

⁵⁵ Thornton, p. 13.

⁵⁶ Kennedy, p. 28.

⁵⁷ Matthew and Holt, p. 209.

⁵⁸ N. Shashi Kumar, "U.S. Merchant Marine and Maritime Industry in Review," *United States Naval Institute. Proceedings*, 130, No. 5, May 2004, p. 116.

⁵⁹ Pickering email, refers to one case of pilferage observed on a foreign-flagged ship in OIF. Amnesty International, p. 47, sees the potential danger of diversion of sealift cargoes to third parties.

⁶⁰ Kennedy, p. 29. See also Thornton, pp. 16-17, and U.S. Transportation Command, "VISA Executive Working Group (EWG) Minutes, May 14, 2003, http://www.transcom.mil/j5/ewg_14may.pdf (Accessed 30 September 2008). Pickering email, notes one case where there was a cultural problem. A group of the Puerto Rican National Guard had such difficulty with the fare on a Ukrainian vessel chartered during OIF that they requested and received a helicopter airlift of MREs to the ship.

⁶¹ Interview, VAdm (ret) James Perkins, October 28, 2008. Perkins notes that the National Guard detachment commanders, not ship masters, had weapons release authority, and some felt this was a potential risk, particularly when operating in the Persian Gulf. The security detachments, with less experience with the many small boats operating in the Gulf (often smugglers), might have been more nervous about them and more willing to use force than more experienced ship masters who had been in the Gulf before.

⁶² Thornton, pp. 17-18.

⁶³ The fact that U.S. sealift programs are costly should not be construed as an argument that they are wasteful. Office of Management and Budget, *Ibid*, notes that for the \$661million spent on the MSP up to 2004, it would have required \$6.3 billion for DoD to acquire equivalent capability directly.

BIBLIOGRAPHY

- Amnesty International and TransArms, Research Centre for the Logistics of Arms Transfers, *Dead on Time – Arms Transportation, Brokering and the Threat to Human Rights*, AI Index: ACT 30/008/2006, London: Amnesty International, 2006
- Cook, Kevin S., “Meeting the Strategic Sealift Needs of the U.S. with a Limited Merchant Marine,” Strategy Research Project, Carlisle, PA: US Army War College, 1999
- Corbett, Julian Stafford, *Some Principles of Modern Strategy*, (London, 1911)
- Dragonette, Charles N. and Coulter, Daniel Y., “World Merchant Shipping: Multinationalism Triumphant”, paper for Transportation Research Board Annual Meeting, 7=11 January 1996, Session 189
- Gibson, Andrew and Donovan, Arthur, *The Abandoned Ocean: A History of United States Maritime Policy*, Columbia, SC: University of South Carolina Press, 2000
- Hawkins, William, “The Army’s Interest in Seapower,” *Army* 55. No. 12, December 2005,. <http://www.proquest.com> (Accessed September 15, 2008)
- Kennedy, Harold, “Navy’s Sealift Command Picks up the Pace”, *National Defense*, 88, Iss. 596, July 2003, <http://www.proquest.com> (Accessed September 14, 2008)
- Lovett, William A., “Maritime Rivalries and the World Market” in William A. Lovett, ed., *United States Shipping Policies and the World Market*, Westport, CT: Quorum Books, 1996
- Marcus, Henry S., et al, *Increasing the Size of the Effective United States Control Fleet*, Boston, MA: Massachusetts Institute of Technology, 2002
- Matthew, James K. and Holt, Cora J., *So Many, So Much, So Far, So Fast: The United States Transportation Command and Strategic Deployment for Operation Desert Shield/Desert Storm*, Washington: Joint History Office, Office of the Joint Chiefs of Staff and Research Center, U.S. Transportation Command, 1996
- Military Sealift Command, “Ship Inventory”, Washington, DC: U.S. Military Sealift Command, 2008 <http://www.msc.navy.mil/inventory/> (Accessed October 19, 2008).
- “MSC Official Credits Mariners, Predicts Substantial Job Growth”, *Seafarer’s Log*, September 2005

Office of Management and Budget, “Maritime Security Program Assessment,” Program Code 10002252, 2004,
<http://www.whitehouse.gov/omb/expectmore/detail/10002256.2004.html>,
(accessed September 10, 2008)

Oropeza, Antonio and DeLaney, Brian E., “An Analysis of United States Maritime Industry and Its Ability to Meet National Security Strategy Requirements”, Master’s Thesis, Monterey, CA: U.S. Naval Postgraduate School, March 2001

Reed, Wallace S., “U.S. Sealift and National Security” in William A. Lovett, ed., *United States Shipping Policies and the World Market*, Westport, CT: Quorum Books, 1996,

Shashi Kumar, N. “U.S. Merchant Marine and Maritime Industry in Review,” *United States Naval Institute. Proceedings* 130, No. 5, May 2004

Shashi Kumar, N., “World Shipping Competition,” in William A. Lovett, ed., *United States Shipping Policies and the World Market*, Westport, CT: Quorum Books, 1996

Singer, P.W., *Corporate Warriors: The Rise of the Privatized Military Industry*, Ithaca, NY: Cornell University Press, 2003

Thornton, Gregory S., “Foreign Flag Shipping: A Risky Business for the Combatant Commander?”, Paper, Newport, RI: Naval War College, February 14, 2005,
<http://www.stinet.dtic.mil> (Accessed September 19, 2008)

United Nations Conference on Trade and Development (UNCTAD), *Review of Maritime Transport 2007*, UNCTAD/RMT/2007, New York: United Nations, 2007 http://www.unctad.org/en/docs/rmt2007_en.pdf (Accessed October 19, 2008)

U.S. Congress, House, “U.S. Transportation Command’s (USTRANSCOM) Airlift and Sealift Programs,” Testimony of Gen. John Handy, March 17, 2004, Washington, DC: U.S. Congress, 2004 <http://www.stinet.dtic.mil> (Accessed September 21, 2008)

U.S. Congress, House, “Vessel Operations under Flags of Convenience and Their Implications on National Security” Hearing before the Special Oversight Panel on the Merchant Marine of the Committee on Armed Services, House of Representatives, 107th Congress, 2nd Session, Hearing held June 13, 2002, HASC 107-421, Washington, DC: U.S. Government Printing Office, 2003

U.S. Maritime Administration, *Annual Report to Congress Fiscal Year 2004*, (Washington: Maritime Administration, 2004)

-
- U.S. Maritime Administration, “Foreign-Flag Crewing Practices: A Review of Crewing Practices in U.S.-Foreign Ocean Shipping,” December 2006, Washington, DC: U.S. Maritime Administration, 2006, p. 3.
<http://www.marad.dot.gov/Publications/2007/Crewing%20Report%20Internet%20Version%20in%20Word-update-Jan%20final.pdf> (Accessed October 22, 2008).
- U.S. Maritime Administration, “Maritime Security Program Fleet – April 17, 2008”, Washington, DC: U.S. Maritime Administration, 2008
<http://www.marad.dot.gov/programs/MSP/MSP%20Fleet%204-17-08.pdf> (Accessed October 19, 2008)
- U.S. Maritime Administration, “World Oceangoing Merchant Fleet by Top 25 Flag and Type, 2006: Vessels 10,000 Deadweight Tons and Greater”, Washington, DC: U.S. Maritime Administration, 2006
http://www.marad.dot.gov/Marad_Statistics/2007%20STATISTICS/Top%2025%20Flag%20of%20Registry%202006.xls, (Accessed October 19, 2008)
- U.S. Transportation Command, “VISA Executive Working Group (EWG) Minutes, May 14, 2003, http://www.transcom.mil/j5/ewg_14may.pdf (Accessed 30 September 2008)
- U.S. Transportation Command, “Visa Executive Working Group (EWG) Minutes, 22 January 2004” http://www.transcom.mil/j5/ewg_04jan04.pdf. (Accessed September 25, 2008)
- Waters, Robert C., “The Military Sealift Command Versus the U.S. Flag Liner Operations”, *Transportation Journal*, Summer 1989
- Whitehurst, Clifton, H. Jr., “Defining America’s Military Sealift Capability: U.S. or Foreign Flag,” *Defense Transportation Journal*, 57, No. 4, August 2001, <http://www.proquest.com> (Accessed September 14, 2008)
- Wolosz, Stanley H., “Foreign Shipping and Terminal Operations Support to the Military: Value-Added, Vulnerabilities, and the Way Ahead,” Paper, Newport, RI: Naval War College, October 23, 2006