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14. ABSTRACT

Operational logistics provides the foundation for every surge and sustainment capabilities for all military operations. The sealift portion of logistics is the most cost effective and most utilized means to transport our military cargo to an operational area. Therefore, our military's responsiveness and sustainment is imperative on having a strong and reliant sealift capability.

With the steady decline of the United States flagged Merchant Marine and the need to maintain a strong and reliant sealift capability, the United States military has been required to rely on foreign flag shipping to fully meet their sealift requirements. This reliance on foreign flag shipping introduces multiple inherent risks that could interrupt the flow of personnel and materials into a theater of operations. This has the potential to significantly impact the ability to surge and sustain forces, which could result in the constraint of strategic, operational, and tactical options available to the operational commander. This paper discusses these inherent risks to the geographic combatant commanders and TRANSCOM, the functional combatant commander, while also demonstrating the need to address these risks. Finally, the paper will draw a conclusion concerning these inherent risks and recommend updating doctrines and plans so that they incorporate today's reliance on foreign flag shipping allowing the United States military to continue having the freedom of action necessary for an operational commander to respond to any conflict worldwide that threatens United States national security.

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Foreign Flag Shipping: A Weakness in the Sealift Trident

by

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National Geospatial Intelligence Agency



A paper submitted to the Faculty of the Naval War College in partial satisfaction of the requirements of the National Security Decision Making Department.

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

Keith Dominic

04 May 2009

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Abstract

Foreign Flag Shipping: A Weakness in America's Sealift Trident

Operational logistics provides the foundation for every surge and sustainment capabilities for all military operations. The sealift portion of logistics is the most cost effective and most utilized means to transport our military cargo to an operational area. Therefore, our military's responsiveness and sustainment is imperative on having a strong and reliant sealift capability. With the steady decline of the United States flagged Merchant Marine and the need to maintain a strong and reliant sealift capability, the United States military has been required to rely on foreign flag shipping to fully meet their sealift requirements. This reliance on foreign flag shipping introduces multiple inherent risks that could interrupt the flow of personnel and materials into a theater of operations. This has the potential to significantly impact the ability to surge and sustain forces, which could result in the constraint of strategic, operational, and tactical options available to the operational commander. This paper discusses these inherent risks to the geographic combatant commanders and TRANSCOM, the functional combatant commander, while also demonstrating the need to address these risks. Finally, the paper will draw a conclusion concerning these inherent risks and recommend updating doctrines and plans so that they incorporate today's reliance on foreign flag shipping allowing the United States military to continue having the freedom of action necessary for an operational commander to respond to any conflict worldwide that threatens United States national security.

INTRODUCTION

The United States Merchant Marine has been a foundation of the United States military sealift equation ever since the birth of the nation in 1776. In fact, in 1776 the new Continental Navy was a 30 vessel fleet; while the new United States flagged Merchant Marine fleet included 449 vessels that carried arms and crucial cargo from Europe to sustain America's fight for independence. President John Adams in his memoirs stated, "No group of individuals did more for establishing our country than the American Merchant Seamen and Privateers. Their record speaks eloquently of their devotion and sacrifices." Ever since the War of Independence the United States flagged Merchant Marine has provided the logistical needs for the economic and military interests of the United States. Moreover, the United States Merchant Marine has become the key component for any logistical planning and operations that provide a ready, responsive, and reliable capability for the surge and sustainment of the United States military forces deployed around the world.

In today's world the sealift component, for military logistical operations, continues to be the most utilized leg with 90 percent of all equipment and supplies to sustain United States military forces in 2008.³ This percentage was even higher, around 95 percent, during the deployment of both Operation Iraqi Freedom (OIF) and Desert Shield/Desert Storm. With the overwhelming majority of military cargo traveling via the sea, President George W. Bush recognized this significant effort stating in his 2007 Maritime Day proclamation,

In times of war, the Merchant Marine is the lifeline of our troops overseas. By carrying critical supplies, equipment, and personnel, merchant mariners provide essential support to our Armed Forces and help advance the cause of freedom. Today, merchant mariners are supporting operations in Afghanistan and Iraq, and their devotion to duty is a tribute to the generations of men and women who have served our Nation with courage and determination in every conflict in America's history. On this day, and throughout the year, America is

grateful for their service.4

However, the number of United States flagged merchant vessels are on a steady decline with the Maritime Administration reporting that as of December 2007 there were 189 United States flagged merchant vessels operating in foreign and ocean going trade compared to 857 in 1975 and 291 in 1996.⁵ With this decline in United States flag shipping, and the continuing fact that sealift provides the most efficient way to transport military cargo, the United States Transportation Command (TRANSCOM) has looked at different methods to ensure they will be able to continue to support military operations globally. This has caused TRANSCOM to use short-term charters with foreign flag vessels to subsidize the lack of United States flag merchant vessels. This continuing and growing reliance upon foreign flag vessels, with their foreign crews, have added inherent risks to the Geographic Combatant Commander's logistical infrastructure. These risks have the potential to interrupt or even deny the flow of vital military cargo into an operational area requiring the risks to be fully integrated into the Geographic Combatant Commanders plans for any campaign or operations. Therefore, as the United States Merchant Marine industry continues to decline and TRANSCOM's reliance on foreign flag shipping expands the Department of Defense (DOD) needs to completely review their policy and doctrine to ensure foreign flag shipping is adequately addressed throughout the logistical operations.

THE USE OF FOREIGN FLAG VESSELS - HISTORICAL PERSPECTIVE

Looking back at the Desert Shield/Desert Storm conflict, TRANSCOM handled the largest rapid deployment of United States forces and supplies in history. During this conflict the Navy component of TRANSCOM, Military Sealift Command (MSC), handled around 95 percent of all military cargo. During the height of MSC's sealift operations they had 217

vessels across the Atlantic forming a virtual "steel bridge," which equaled one ship every 50 miles from Savannah Georgia to the Persian Gulf.⁷ By the end of the conflict, MSC had transported approximately 32.7 million square feet of cargo by sea, which included 945,000 pieces of equipment using 459 shiploads.⁸

Since 11 September 2001 to July 2008, MSC vessels delivered more than 12 billion gallons of fuel and transported over 100 million square feet of cargo in support of the Global War on Terrorism, including Operation Iraqi Freedom (OIF). In fact, during March 2003, the height of MSC deployment operations for OIF, MSC had 167 vessels that equaled one ship every 72 miles from the United States to Kuwait, which the commander of MSC, Rear Admiral Brewer, called a "Steel Bridge of Democracy" carrying "the torch of freedom to the Iraqi people." Furthermore, from January to April 2003, which was the build up and phase one of OIF, MSC moved 26 million square feet of cargo and one-third billion gallons of fuel. 11

Both of these conflicts show the massive amount of sealift capabilities required to surge and sustain the United States military in conflicts abroad. To handle these large strategic deployment operations MSC manages their force by deploying them in three basic phases of strategic mobility which are known as the Sealift Trident: Prepositioned, Surge, and Sustainment. All three legs of the Sealift Trident underwent significant changes from Desert Shield/Desert Storm to OIF in order to support the sealift requirement of the 21st century and to address the lack of United States flag shipping.

The first of the Sealift Trident, prepositioned vessels, are United States flagged longterm contracted merchant vessels, which are fully loaded in strategic positions around the globe. ¹³ During Desert Shield/Desert Storm all 25 prepositioned vessels were used with three of them arriving in the area of operation on 15 August 1990, just eight days after the beginning of Desert Shield. ¹⁴ The majority of these vessels unloaded their initial stored cargo and then became a TRANSCOM asset transporting additional cargo from the United States. In total the prepositioned vessels carried 19 percent of unit cargo during Desert Shield/Desert Storm. ¹⁵

Because these prepositioned ships were able to provide a fast and powerful first response while carrying a large amount of combat cargo, TRANSCOM requested and received additional vessels for this leg of the Sealift Trident increasing the number to 36 by the beginning of OIF in 2003. During the beginning of OIF, TRANSCOM used 34 of the 36 vessels and once again these ships were the first in the area of operation. In total the prepositioned vessels carried 25.7 percent of all cargo for OIF from 1 January to 1 May in 2003.

Today, as the Global War on Terrorism continues, TRANSCOM views the prepositioning leg of the Sealift Trident as crucial to the long term ability of rapidly surging our military forces to combat global operations. In fact, even though there are now only 31 prepositioned ships their cargo capacity has continued to increase 800 percent to 740,000 tons in 2009 versus 94,000 tons in 1980. Furthermore, in both 2006 and 2007 TRANSCOM purchased three prepositioning ships and is considering purchasing more in 2010. As TRANSCOM continues to acquire preposition ships and ensure other preposition vessels are on long-term charters this vital leg of the Sealift Trident is secure.

The Sealift Trident's second phase is a robust and responsive surge fleet requiring TRANSCOM to quickly move a massive amount of heavy combat power and supplies in order to facilitate the deployment of United States forces globally.²¹ In order to move this

massive amount of military cargo and supplies TRANSCOM first uses MSC vessels, including the Maritime Administrations Ready Reserve Fleet (RRF). When these United States government owned vessels are unable to fully support TRANSCOM's surge requirement, they then look to the United States flagged merchant fleet and then finally foreign flag vessels.

During the Desert Storm/Desert Shield surge phase of the Sealift Trident MSC used seven of their eight Fast Sealift Ships (FSS), which were and still are the fastest ships in the world, and 72 out of 96 RRF vessels.²² The FSS vessels were all maintained in a reduced readiness state with a requirement to be deployable in less than 96 hours. Furthermore, these 946 foot long vessels were all capable of carrying massive amounts of cargo at a top speed of 33 knots, but on average traveled only 23 knots during the conflict.²³ With the FSS fleet's capacity and speed these seven vessels were able to carry 13 percent of Desert Shield/Desert Storm's cargo in 32 voyages.²⁴ For the RRF Fleet, the 72 activated vessels carried 28 percent of cargo, giving them the largest percentage of cargo carried by United States government owned vessels.²⁵

In total, during the deployment phase for Desert Shield/Desert Storm, which includes the preposition and surge legs of the Sealift Trident, the United States government owned vessels carried 60 percent of the cargo needed. This shortage required TRANSCOM to use United States flagged and foreign flagged vessels to carry the remaining 40 percent of cargo needed. As required by law TRANSCOM first turned to the United States flagged merchant fleet and chartered 32 United States flagged vessels. These 32 United States flagged and United States crewed vessels carried over 300,000 tons of cargo which resulted in them transporting 13 percent of the total military cargo. The final 27 percent of cargo, just one

percent behind the highest percentage carried by United States owned vessels, was carried by 177 short-term contracted foreign flagged ships.²⁸

Having 27 percent of military cargo for Desert Shield/Desert Storm transported by foreign flag vessels caused General Johnson, the commander of TRANSCOM at the time, to make strengthening the nation's military sealift force number three of his 80 highest priorities for funding after the conflict.²⁹ With this high priority after Desert Shield/Desert Storm, TRANSCOM purchased 11 large, medium-speed, roll-on/roll-off (LMSR) vessels and replaced older RRF break-bulk ships with newer, more efficient, larger capacity roll-on/roll-off ships while also decreasing the number of RRF to 68 by the deployment phase for OIF.³⁰

The deployment for OIF was the first major test for the United States government owned vessels with the new increase in capacity. During the deployment for OIF, 10 of the 11 LMSRs and all eight of the FSS were used to support the logistical operations.³¹ In all, these MSC owned vessels moved 7.3 million square feet or 35.4 percent of cargo, which allowed them to obtain the highest percentage of cargo moved in OIF.³² Of the 68 Maritime Administration's RRF vessels, 40 of them were activated and carried 3.4 million square feet or 16.5 percent of the OIF deployment cargo.³³ In all, 77.6 percent of OIF deployment cargo, 17.6 percent more than Desert Shield/Desert Storm, was carried by United States government vessels.

With 77.6 percent of cargo being moved by United States government owned vessels, TRANSCOM still had to turn to the United States and foreign flagged merchant fleets during the deployment of OIF. In fact, since the United States flagged merchant fleet continued to decline between Desert Shield/Desert Storm and OIF, United States flagged merchant vessels delivered only 1.3 million square feet or a mere 6.3 percent of OIF deployment cargo.³⁴

Therefore, even with TRANSCOM's high priority of funding after Desert Shield/Desert Storm they were still required to use foreign flagged merchant vessels to move 3.3 million square feet or 16.0 percent of OIF deployment cargo.³⁵

While this looks like an 11 percent improvement from Desert Shield/Desert Storm, OIF required 12.1 million square feet less of cargo. Therefore, if the required cargo to be moved was equal to that of Desert Shield/Desert Storm then foreign flag vessels would certainly have been used to carry the majority of the additional cargo. In fact, using a conservative estimate of foreign flag vessels picking up 50 percent of the difference in cargo between the two conflicts would have brought the percentage of cargo carried by foreign flag vessels to 28.6 percent, one percent higher then during Desert Shield/Desert Storm. Although, TRANSCOM identified funding to fix the United States military's sealift capability as high priority, the purchase of 11 LMSRs and replacement of older RRF vessels with newer larger capacity vessels only offset the declining United States flagged merchant fleet. Furthermore, it demonstrates that TRANSCOM will be required to heavily rely on foreign flag merchant fleets to handle the surge leg of the Sealift Trident in any future global conflict.

The final phase of the Sealift Trident, sustainment, requires TRANSCOM "to use commercial merchant vessels, mostly containerships, to deliver large quantities of resupply and ammunitions to the forward-deployed forces." Because the Desert Shield/Desert Storm surge was only six months long and the conflict lasted less than two months it is difficult to use this conflict for analysis of the sustainment leg. However, TRASNCOM has been in a mostly sustainment mode since after 11 September 2001, except during the OIF deployment, which gives a clear picture of the United States military's ability to sustain troops around the globe for an extended period of time. In fact, during this sustainment effort TRANSCOM

delivered enough combat cargo to fill a train that stretches from New York City to Las Vegas and enough fuel to fill a man-made circular lake a mile across and almost 97 feet deep.³⁸

During this sustainment mode TRANSCOM has fulfilled most of their cargo requirements using United States government owned vessels and the United States flagged Merchant fleet. During the fiscal year 2008, TRANSCOM moved 5.7 million square feet of cargo and used United States government owned vessels to carry approximately 80 percent of the total cargo delivered.³⁹ Moreover, TRANSCOM used the United States flagged merchant fleet to deliver approximately 19 percent of cargo leaving only one percent to be delivered by foreign flag vessels.⁴⁰

However, TRANSCOM's ability to use United States government owned and United States flag merchant fleet is greatly reduced when meeting the requirements for fuel delivered to United States forward land based operational zones. This was clearly shown during fiscal year 2008 when United States government owned vessels and the United States flagged merchant fleet delivered 42 percent and 18 percent of required fuel, respectively. This left foreign flag merchant vessels to carry the remaining 40 percent of required fuel. This in itself is the largest percentage of foreign flag usage in the three phases of the Sealift Trident.

FOREIGN FLAG CRITICAL ISSUES

As shown above, the last two major conflicts of Desert Storm/Desert Shield and OIF demonstrate that TRANSCOM has and will continue to heavily rely on foreign flag vessels and crews to ensure they meet their Sealift Trident requirements. The continual reliance on foreign flag shipping creates several critical inherent risks that TRANSCOM and the Geographic Combatant Commanders must be aware of and ready to address.

The first concern addresses TRANSCOM's ability to find and place the right type foreign flagged merchant vessels on short-term charter. As the global maritime industry grows with the expansion of world trade it will become increasingly more difficult to locate available foreign flag vessels. In fact, The UN Commission on Trade and Development reported the volume of international seaborne trade reached 8.02 billion tons in 2007, which was a 4.8 percent increase from the prior year, which was also higher than the annual average increase rate of 3.1 percent. Using the average rate of 3.1 percent, seaborne trade will increase by 44 percent in 2020 reaching 11.5 billion tons and doubling by 2031 to over 16 billion tons. He world shipping fleet has also grown in response to this ever expanding trade to 1.12 billion deadweight tons at the end of 2007, a 7.2 percent increase from 2006. At though, the growth of the international fleet is a good sign that TRANSCOM's will be able to continue chartering foreign flag vessels, the increase of seaborne trade will still hamper the availability of these vessels. This is demonstrated by looking at the available surplus tonnage as a percentage of total world merchant fleet, which totaled a mere 1.1 percent in 2007.

Furthermore, the vessels being built to support the increase in world trade are mostly container vessels and oil tankers which have increased by 60 and 126 million deadweight tons from 2000 to 2008, respectively. The general cargo vessels, which TRANSCOM prefers to use during the surge phase of the Sealift Trident, only increased by four million deadweight tons. With a limited 1.1 percent of surplus vessels to meet TRANSCOM's rapid surge requirement it must be understood by both TRANSCOM and the Geographic Combatant Commander that the necessary class of vessel might be unavailable when its needed or under charter to another coalition member.

This lack of availability has the potential to dramatically effect a quick and rapid deployment of United States military forces. In fact, in regards to short-term charters the Joint Publication (JP) 4-01.2, *Sealift Support to Joint Operations*, states, "all chartered ships may not be immediately available in time of crisis. Depending on ship location, the time required to arrive at the designated loading port may be as much as 30 days."

In addition, TRANSCOM must also take into consideration that vessels being built today are much larger, and therefore may not be able to enter all ports or travel via all routes. As older vessels continue to be replaced by newer, larger vessels TRANSCOM will have to use these larger foreign flag vessels to meet their requirement for the surge and sustainment leg of the Sealift Trident. TRANSCOM and the Geographic Combatant Commander must be aware that when these larger vessels are chartered they have the potential to come with longer transit times because of route restrictions, especially through the Panama Canal. More importantly they will not be able to deliver cargo to ports with limited draft or terminal facilities, which could potentially have an impact on the places TRANSCOM can rapidly reach during the surge phase of the Sealift Trident.

As TRANSCOM continues to charter these foreign flag vessels they must also understand there will be an increase in cost and political instability, especially since they will often be traveling in hostile zones. Typically, the foreign flag vessels which are available and willing to be contracted by TRANSCOM are older and slower, and not routinely used in commercial trade. Furthermore, these vessels will require a higher rate to be chartered, since they will be traveling to hostile areas. During Desert Shield/Desert Storm foreign flag vessels averaged 50 dollars more per ton than United States flag ships and 40 percent of these vessels were from registries on the United States Coast Guard "blacklist" as a result of numerous

safety inspection failures.⁵⁰

Additionally, the political side of using foreign flag shipping has a potential major impact on the Sealift Trident. First, you have the foreign government that owns the vessels. These foreign governments have every right to forbid chartering of their ships to the United States government. In fact, a foreign government forbade chartering to the United States government twice during Desert Shield/Desert Storm when TRANSCOM requested Soviet dry cargo ships. The Soviet's declined the offer stating they "do not plan to involve in military transport to the crisis area in the Persian Gulf."51 Secondly, the foreign crews aboard these vessels could have different political views from the United States government or a fear of entering a combat zone. One must also consider the fact that foreign mariners have the international right to decline to enter a war zone which could have a dramatic effect on TRANSCOM's sealift efforts. 52 In fact, at least 13 different crews on foreign flag vessels hesitated or refused to enter the Persian Gulf during Desert Shield/Desert Storm.⁵³ This hesitation and/or refusal to complete their voyages during past conflicts raises the question of future foreign flag dependability that TRANSCOM must consider. This becomes especially true if the United States acts in a broad coalition and/or without world consensus.

Once these foreign flag merchant vessels are on charter by TRANSCOM it then becomes the Geographic Combatant Commander's responsibility to provide anti-terrorism force protection for these vessels. In fact, JP 4-01.2 states that, "As directed by their geographic combatant commanders, Navy component commanders are tasked with establishing and implementing plans to provide embarked security teams, and surface and air escort for the protection of all MSC shipping." However, the current OPNAVINST 4620.4B, which was last updated on November 25, 1985, defines the responsibility of the

Navy component commander to control and protect all MSC vessels, except short-term foreign flag charters.⁵⁵ Furthermore, the Commander's Handbook on the Law of Naval Operations (NWP 1-14M) does not claim sovereign immunity for MSC foreign flag time charted vessels carrying United States military cargo, as it does for United States flagged merchant shipping.⁵⁶

Since these foreign flag vessels do not have any force protection requirements and cannot claim sovereign immunity it leaves them easy accessible to commerce raiding and terrorism attacks throughout their transit, especially by small boats when they are close to shore and in narrow waterways including straits. With close to 30 percent of surge cargo and 40 percent of sustainment fuel traveling on these foreign flag vessels, this weakness in force protection could have significant consequences on the Geographic Combatant Commander's ability to receive shipments. As foreign flag vessels continue to be an important aspect of the Sealift Trident Geographic Combatant Commanders must address this weakness in their logistical operations. Not addressing this issue before another conflict only increases the likelihood of more foreign flag vessels being attacked, which will increase the number of foreign governments and crews who will refuse to be contracted by TRANSCOM.

Furthermore, the foreign crews on board these contracted foreign flag vessels provide an inherent risk that Geographic Combatant Commander must also take into consideration. As stated above, the crews aboard these foreign flag vessels have the right to decline to enter a war zone if they have different political views, but they also have the capability to tamper with or even sabotage the cargo aboard their vessels. Because the Geographic Combatant Commander is only required to provide an embarked security team to United States flagged MSC vessels, foreign crews have open access to tamper with the cargo

on board their vessels. The possibility becomes even greater with terrorist and non-state actors in the post September 11th environment.

In fact, a Government Accounting Office stated the following in a 2002 report about United States military cargo on foreign flag vessels, "there may be an increased risk of the equipment being tampered with, seized, or destroyed by individuals or groups whose interest run counter to those of the United States and an increased chance that those weapons or equipment might be used against military or civilian targets." The report went on to highlight that during the four major overseas deployments they reviewed during calendar year 2001 foreign flag vessels carried sensitive military cargo such as Bradley Fighting Vehicles, Blackhawk and Apache helicopters, Anti-Tank Missiles, Stinger anti-aircraft launchers, and .50 caliber machineguns to name a few. While TRANSCOM does perform a review of a charter vessel's crew list to determine whether there are any known security threats this does not stop the possibility of a foreign crew member or a terrorist from sabotaging, disrupting, or stealing the cargo carried aboard these foreign flag vessels.

RECOMMENDATIONS

To address this reliance on foreign flag vessels and the inherent risk that comes with them, TRANSCOM can once again purchase more government owned vessels and modernize the RRF vessels. However, as happened after Desert Storm/Desert Shield TRANSCOM will once again only be off setting the continuing decline of the United States flagged merchant fleet. Furthermore, purchasing more government owned vessels will significantly increase TRANSCOM's operating budget during peace time as these vessels sit around in a reduced state and require routine maintenance. Therefore, foreign flag vessels are and will be part of any major logistical operations and require both TRANSCOM and the

Geographic Combatant Commanders to integrate these vessels into their logistical operations, doctrine, and war games, while also addressing the critical issues associated with the use of short-term foreign flag vessels.

To address these critical issues there needs to be a complete review by the DOD of all doctrine and policies that involves the Sealift Trident. These doctrines and policies should be updated to reflect the current environment where TRANSCOM will continue to rely on foreign flag shipping to meet their sealift requirements. Once these doctrines and policies are updated planning and war gaming should be conducted. Situations to address include having a limed number of foreign flag vessels because of world trade environment and having difficulty reaching navigational restricted ports because of vessel sizes and routes.

TRANSCOM and the Geographic Combatant Commander must also work together to develop and update the doctrine and policy for providing force protection both on board the vessel and around the vessel throughout its transit. As these vessels typically transit multiple Geographic Combatant Commander areas of responsibility the doctrines and policy must overarch the entire logistical supply chain. Without a prevailing policy and doctrine to address these critical issues the entire logistical operation will be extremely vulnerable to future global conflicts while also leaving TRANSCOM and the Geographic Combatant Commander unprepared to meet their logistical needs.

In addition to having a doctrine and policy that incorporates foreign flag shipping, the United States government's intelligence community should also become involved in assuring that crew members are vetted properly and foreign flag vessels are routed out of known danger areas. Without a joint intelligence system to support any real-time monitoring of these vessels, their crews or cargo movements, or the ability for the Geographic Combatant

Commander to place a security detachment aboard them for protection, these foreign flag vessels remain vulnerable to terrorist activities.

In all, with TRANSCOM's continued reliance on foreign flag shipping and the decline in the United States flagged merchant fleet, DOD has to provide the same, if not more, security and policies for these vessels. This means the United States Navy needs to take a more active role in protecting commerce and expanding their mission to include protecting foreign flag vessels charted by TRANSCOM. While this mission might look less exciting than a typical naval mission, the importance of it should not be understated. If foreign flag vessels are not fully protected with the same, if not more, policies and security as the rest of the Sealift Trident, TRANSCOM's ability to meet the sealift requirements of the Geographic Combatant Commander will be unachievable in future global conflicts.

CONCLUSION

Milan Vego stated in his Joint Operational Warfare book, "Logistical support and sustainment are perhaps two of the most critical factors for the success of a campaign or major operation. Failure to establish sound logistical organization in the theater, a lack of readily available supplies of all kinds, and inability to provide protection to both the elements of logistical organization and the lines of communication will lead to major setbacks and often defeats." While TRANSCOM has and will continue to use foreign flag shipping the use of these vessels must be integrated into today's polices and doctrine in order to avoid critical vulnerabilities in our logistical operation. If these critical vulnerabilities are not addressed they leave a vital exposed weakness in our ability to surge and sustain our military forces globally. Furthermore, most States and all non-state actors will not be capable of having a typical Clauswitzian type battle and will follow the Sun Tzu way of battle by

indirectly attacking the United States' center of gravity. Without a new policy and doctrine that incorporates foreign flag shipping, these vessels will become a logical and appealing target for an indirect attack by the United States next adversary.

In conclusion, JP 4-01.2 states "Successful response to regional contingencies depends upon sufficient strategic mobility assets in order to deploy combat forces rapidly and then sustain them in an operational area as long as necessary to meet United States military objectives."60 The current reliance upon foreign commercial assets to achieve mission success has and will continue to introduce an inherent risk into United States military operations that could interrupt the flow of personnel and materials into a theater. This could impact the ability to conduct sustained operations while constraining the strategic, operational, and tactical options that operational commanders can employ, ultimately influencing the outcome of the operation being conducted. This requires a complete integration of foreign flag shipping in our doctrine in order for the United States to maintain total dominance over the seas throughout the range of military operations and to guarantee the capability to unilaterally project power around the globe. Without these actions the United States will remain vulnerable and it will only be a matter of time before an adversary exposes and take advantage of this weakness. As General Dwight D. Eisenhower stated, when he was the Supreme Commander of Allied forces in Europe, "maximum safety of these lines of communication is a 'must' in our military effort; no matter what else we attempt to do...Shipping...will remain the bottleneck of our effective effort."61

NOTES

Percentage calculated by adding the prepositioning LMSRs and maritime prepositioning cargo together and diving it by the total amount of cargo delivered in 2003 minus the Naval Fleet Auxiliary Cargo. The Naval Fleet Auxiliary Force cargo is not included because this cargo is used for sustainment of the United States Naval vessels.

¹ Jeffrey L. Cruikshank and Chloe G. Kline, *In peace and war: A History of the U.S. Merchant Marine Academy at Kings Point* (Hoboken NJ: John Wiley & Son, inc, 2007), 29.

² John Adams, "Memoirs of John Adams," in American Merchant Marine at War, "Quotes about American Merchant Marine by Presidents, Military Leaders, National Figures, and others," http://www.usmm.org/quotes.html (accessed 18 April 2009).

³ U.S. Transportation Command, "2008 Annual Command Report," http://www.transcom.mil/annualrpt/annualreport.cfm (accessed 18 April 2009), 3.

⁴ U.S. President, Proclamation, "National Maritime Day Proclamation 2007," (22 May 2007) http://www.usmm.org/md/maritdaygwb.html#anchorgwb3 (accessed 18 April 2009).

⁵ IHS Global Insight Incorporated, "An Evaluation of Maritime policy in Meeting the Commercial and Security Needs of the United States: Report to U.S. Transportation Maritime Administration," (January 7, 2009), 1-2.

⁶ James K. Matthews and Cora J. Holt, *So Many So Much, So Far, So Fast: United States Transportation Command and Strategic Deployment for Operation Desert Shield/Desert Storm* (Joint History Office, Office of the Chairman of the Joint Chiefs of Staff and Research Center United States Transportation Command, 1996), 12.

⁷ Ibid., 115.

⁸ Ibid.

⁹ U.S. Navy, "U.S. Navy's Military Sealift Command: Handbook 2009" http://www.msc.navy.mil/ (accessed 18 April 2009), 3.

¹⁰ Global Security, "Sealift in Operation Iraqi Freedom," Global Security.org, http://www.globalsecurity.org/military/systems/ship/sealift-ds.htm (accessed 18 April 2009).

¹¹ U.S. Navy, "U.S. Navy's Military Sealift Command 2003 Annual Report: Commander's Respective," http://www.msc.navy.mil/annualreport/2003/perspective.htm (accessed 18 April 2009).

¹² Chairman, U.S. Joint Chiefs of Staff, *Sealift Support to Joint Operations*, Joint Publication (JP) 4-01.2 (Washington, DC: CJCS, 31 August 2005), I-4.

¹³ Ibid, IV-13.

¹⁴ James K. Matthews and Cora J. Holt, So Many So Much, So Far, So Fast, 118.

¹⁵ Ibid.

¹⁶ U.S. Navy, "U.S. Navy's Military Sealift Command 2003 Annual Report: Prepositioning," http://www.msc.navy.mil/annualreport/2003/pm3.htm (accessed 18 April 2009).

¹⁷ Ibid.

¹⁸ U.S. Navy, "U.S. Navy's Military Sealift Command 2003 Annual Report Commander's Respective."

¹⁹ Mike Neuhardt, "MSC buys Prepositioning ships," *SEALIFT: The U.S. Navy's Military Sealift Command*, February 2009, 8.

²⁰ Ibid.

²¹ Chairman, U.S. Joint Chiefs of Staff, *Sealift Support to Joint Operations*, Joint Publication (JP) 4-01.2 (Washington, DC: CJCS, 31 August 2005), I-4.

The total cargo used to derive the percentage was 20.6 million, which was derived by taking the total cargo of 25.9 million minus the Naval Fleet Auxiliary Force cargo of 5.3 million. The Naval Fleet Auxiliary Force cargo is not included because this cargo is used for sustainment of the United States Naval vessels.

The 28.6 percent was derived from using 50 percent of the 12.1 million square feet of cargo difference between Desert Shield/Desert Storm and OIF and then adding it to the 3.3 million square feet of cargo carried by foreign charter vessels during OIF resulting in 9.35 million square feet. Using 9.35 I then divided it by 32.7, the total square feet of cargo moved during Desert Shield/Desert Storm.

The total cargo was derived by taking the total cargo from the source of 7 million minus the Naval Fleet Auxiliary Force cargo of 1.3 million. The Naval Fleet Auxiliary Force cargo is not included because this cargo is used for sustainment of the United States Naval vessels.

²² James K. Matthews and Cora J. Holt, So Many So Much, So Far, So Fast, 119-120.

²³ Ibid.

²⁴ Ibid., 121.

²⁵ Ibid.

²⁶ Ibid.

²⁷ Ibid., 123.

²⁸ Ibid.

²⁹ Ibid., 131.

³⁰ U.S. Navy's Military Sealift Command, "Military Sealift Command 2003 Annual Report: Sealift," http://www.msc.navy.mil/annualreport/2003/pm5.htm (accessed 18 April 2009).

³¹ Ibid.

³² U.S. Navy's Military Sealift Command, "Military Sealift Command 2003 Annual Report: Commander's Respective."

³³ Ibid.

³⁴ Ibid.

³⁵ Ibid.

³⁶ Ibid.

³⁷ Chairman, U.S. Joint Chiefs of Staff, *Sealift Support to Joint Operations*, Joint Publication (JP) 4-01.2 (Washington, DC: CJCS, 31 August 2005), I-5.

³⁸ U.S. Navy's Military Sealift Command, "Military Sealift Command 2008 Annual Report," 3, http://www.msc.navy.mil/annualreport/2008/MSCannual08.pdf (accessed 18 April 2009).

³⁹ Ibid., 2.

⁴⁰ Ibid.

⁴¹ Ibid.

⁴² Ibid.

⁴³ United Nations Conference on trade and Development, *Review of Maritime transport*, Report by the UNCTAD Secretariat (New York and Geneva: United Nations, 2008), 5.

⁴⁴ Ibid., 8.

⁴⁵ Ibid., 31.

⁴⁶ Ibid., 66.

⁴⁷ Ibid., 32.

⁴⁸ Ibid.

⁴⁹ Chairman, U.S. Joint Chiefs of Staff, Sealift Support to Joint Operations, Joint Publication (JP) 4-01.2, V-5.

⁵⁰ National Defense Transportation Association Military Sealift Committee, "Maritime Policy Initiatives 2000," Powerpoint, October 2000, Maritime Institute of Technology and Graduate Studies, http://unjobs.org/tags/maritime-policy (accessed 18 April 2009).

⁵¹ James K. Matthews and Cora J. Holt, So Many So Much, So Far, So Fast, 123.

⁵² International Labour Organization, "Maritime Labour Convention, 2006," Guideline B2.5.1, 36, http://www.ilo.org/global/lang--en/index.htm (accessed 18 April 2009).

⁵³ James K. Matthews and Cora J. Holt, *So Many So Much, So Far, So Fast*, 136.

⁵⁴ Chairman, U.S. Joint Chiefs of Staff, Sealift Support to Joint Operations, Joint Publication (JP) 4-01.2, III-5.

⁵⁵ Chief of Naval Operations, "Navy Policy Regarding Fleet Operating Forces and Military Sealift Command Forces, and Other Related Matters," OPNAVINST 4620.4B (Washington, DC: Department of the Navy, CNO, 25 November 1985).

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⁵⁷ U.S. Government Accountability Office, *Combating Terrorism-Actions Needed to Improve Force Protection for DoD Deployments Through Domestic Seaports* (Washington, DC: GAO, October 2002), 19-20, http://www.gao.gov/new.items/d0315.pdf (accessed 18 April 2009).

⁵⁸ Ibid., 18-19.

⁵⁹ Milan N. Vego, "Operational logistics," in *Joint operational Warfare*, Newport Rhode Island: Naval War College (20 September 2007), VIII-77.

⁶⁰ Chairman, U.S. Joint Chiefs of Staff, Sealift Support to Joint Operations, Joint publication 4-01.2, I-1.

⁶¹ American Merchant Marine at War, "Quotes about American Merchant Marine by Presidents, Military Leaders, National Figures, and others." http://www.usmm.org/quotes.html (accessed 18 April 18, 2009).

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