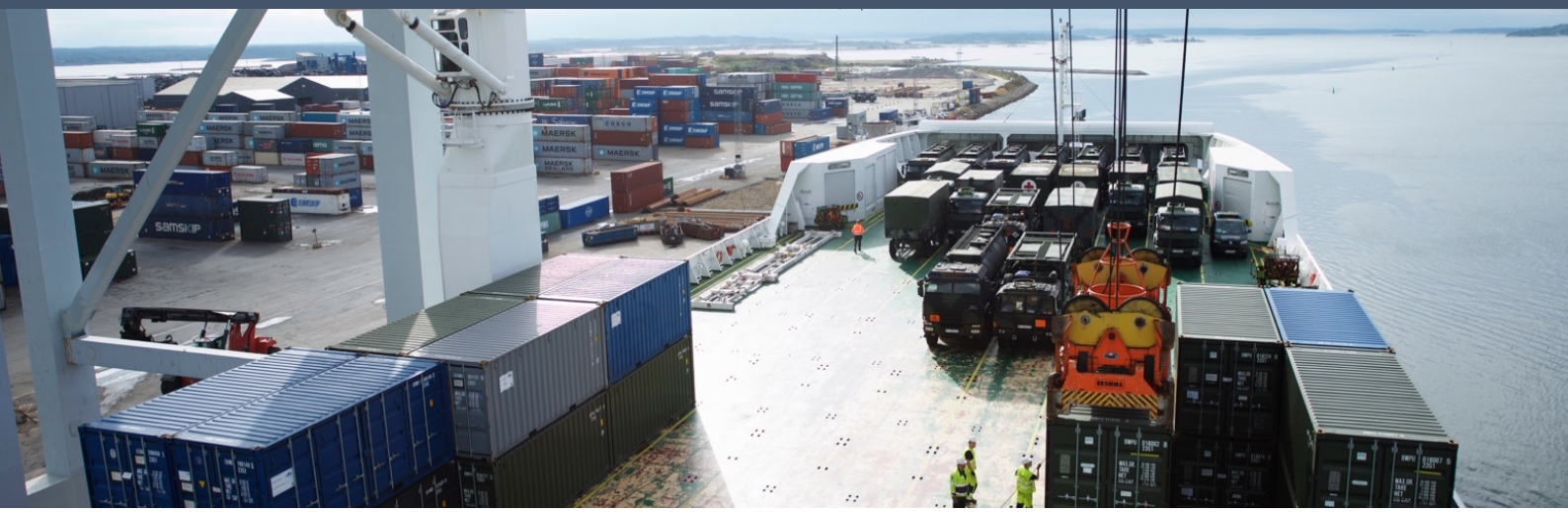

Bridging the Atlantic

A Norwegian Contribution to US Sealift

Åse Gilje Østensen and Ståle Ulriksen

There is currently considerable concern with US capacity to muster the acquired number of sealift vessels needed to swiftly deploy forces overseas. Norway for its part has a large, modern, and versatile merchant fleet that could be militarily useful in case of NATO operations to reinforce Europe. This brief suggest a bilateral agreement be signed between Norway and the US that obliges Norway to muster a significant number of Norwegian-controlled ships to support transatlantic US sealift operations. Norway, along with most other European NATO member states, relies on US reinforcements for its national security. These reinforcements arrive by sea. Therefore, an agreement such as the one suggested in this brief serves the security interests of the US, Norway, and the rest of the European NATO states.

REVITALIZING TRANSATLANTIC MARITIME SECURITY

The research project "Revitalizing Transatlantic Maritime Security: Filling Capability Gaps with the Norwegian Commercial Shipping Sector" intends to bring forward creative ideas on how to fill logistical gaps by leveraging private-public partnerships with merchant fleet operators. The project is a collaboration between Center for New American Security, Norwegian Institiute of International Affairs and the Royal Norwegian Naval Academy. The project is funded by a research grant provided by the Norwegian Ministry of Defence.

Norwegian Defence University College Royal Norwegian Naval Academy

The United States has long had a unique capability to project power around the world by rapidly deploying military forces. Strategic sealift is key to this capability, as more than 90 percent of US military equipment and supplies travel by sea.[1] There is, however, concern that the US in the near future will not be able to supply a sustained conflict overseas due to a shrinking sealift capacity. According to General Stephen Lyons, Commander of US Transportation Command (USTRANSCOM), the sealift fleet currently can generate only 65 percent of the Department of Defense's required capacity.[2] The US is, in other words, not able to self-reliantly meet its sealift requirements. Consequently, unless short-term solutions can be found, the Joint Forces Command may have to make harsh priorities concerning where to deploy forces in the event of two coinciding wars.

This shortage of sealift capacity comes at a difficult time. The current multipolar world order presents a range of challenges to NATO, both internal and external. China and Russia are dissatisfied with continued Western dominance and seek to alter the long-standing power balance, in both economic and military terms. In a broader perspective, inadequate US sealift capacity may negatively affect US deterrence and influence. US adversaries are also aware of how sealift shortages affect US military readiness and ability to deploy overseas, which may in fact have the effect of lowering the armed conflict threshold.

> *Many outside this committee are unaware that in a major contingency, the United States Army sails to the fight.*
>
> *Lt Gen Stephen R. Lyons, Commander USTRANSCOM*

In a situation where long-lasting power balances are changing to form a more complex international scene, NATO remains the backbone for the security of most of its member states. Recent US calls for increased burden sharing have meant that several countries are in the process of increasing their defense spending. However, building defense capabilities and capacities is an extremely expensive, politically difficult, and slow endeavor. Norway, a country with very limited military capabilities, should identify ways to contribute to the military muscle of NATO that do not cripple the country's military presence in the North. Striking that balance should, however, not mean reducing support for the alliance—quite the contrary.

This brief proposes a way that Norway can contribute to US military readiness and sustainment without waiting for new military investments to take effect, as well as in ways that do not cripple military presence at home.[3] By using ships from the Norwegian merchant fleet, arguably Norway's greatest international asset, Norway could provide a short-term fix to pressing US military requirements for strategic sealift. Such a solution would give the USTRANSCOM access to a given number of fully manned modern transport vessels in the event of a NATO mobilization. Due to already established readiness arrangements, Norwegian merchant ships would be able to contribute substantially to US *surge capacity* and the corresponding agility of the US military. In addition, and if needed, Norwegian ships could also add sustainment capacity by supplementing the US commercial sustainment fleet. Furthermore, the arrangement suggested in this paper would facilitate the reception of US reinforcements to Europe in the event of a military confrontation corresponding with Article V, thus contributing to the Alliance's collective defense, not just to that of the involved parties.

The US Need for Increased Sealift Capacity

US sealift arrangements consist of a *surge fleet* and a *sustainment fleet* taken-up from trade. The surge fleet is a largely state-owned fleet of ships that are strategically located, and which have a high readiness to quickly provide the USTRANSCOM with transport capacity should the need arise. After the initial surge phase, and as soon as it can be mobilized, the commercial sustainment fleet is to take over. These ships are on call, which means that when not needed by the DoD, they are in commercial service around the globe.

For the past couple of years, several US departments and naval authorities have repeatedly called for the strengthening of both the state-owned surge fleet and the commercial sustainment fleet. The first category consists of 15 vessels belonging to the Military Sealift Command as well as a dedicated surge sealift fleet named the Ready Reserve Force (RRF), owned and maintained by MARAD, an agency within the Department of

Transportation. The RRF fleet numbers 46 vessels. The 15 MSC ships are all Roll-on Roll-off (RoRo) ships and are on average 30 years of age. The majority of the RRF ships (35 of them) are also RoRo, but there are also 11 special capability ships (e.g., dry cargo ships fit for transporting munitions) in the fleet.

While the RRF consists of a decent number of ships, the readiness of the fleet is limited by the age of the ships. The average age of the RRF ships is 44 years, which also means that most of them are technologically outdated. About one-half of them are in fact steam turbine ships. The high age and the outdated technology of the RRF fleet in particular results in increases in degraded or out-of-service equipment and maintenance periods that run longer than planned.[4] The material condition of the ships in turn affects the ability of surge sealift ships to become operational within the five-day limit set for the RFF ships.

An ADM Callaghan Class RoRo belonging to the RRF fleet. The ship was built in 1967. Photo: MARAD Ship Characteristics Pamphlet 2016.

The commercial sustainment fleet, which is to take over after the initial surge phase, is both newer and in better shape compared to the surge fleet.[5] These ships are enrolled in the Maritime Security Program (MSP), which provides a stipend to counterbalance the cost of operating under a US flag relative to a foreign flag.[6] The number of MSP ships is, however, too low to meet the demand in a major war, and there is limited room for scaling up the program by recruiting new ships from the ocean-going merchant fleet. The recruitment problem relates to a limited pool of both suitable ships and trained mariners. As of 2018, the number of ocean-going US-flagged commercial vessels (1000 gross tons or more) engaged in international trade was 82, 60 of which are already part of the MSP program.[7]

The small number of merchant ships also makes for a limited pool of trained mariners eligible for recruitment. The problem is especially acute concerning the state-owned RRF fleet. Few young mariners have the necessary certificates to operate the RRF ships, as they require steam technology competency as well as marine engineering certificates. The same problem also applies to maintainers.

American RoRo Carriers' M/V Independence II loads military vehicles and heavy equipment after the NATO exercise Trident Juncture, December 6, 2018, Borg Harbor, Norway. Photo: Å.G. Østensen.

Adding to the shortage of competent mariners, the deployment of the RRF fleet relies on the same pool of mariners as the commercial sustainment fleet. The RRF fleet is sparsely manned on a day-to-day basis and relies on crews to be scrambled from the rotating crew of the MSP vessels in the event of RFF activation.[8] In such a situation, this would mean that most of the 60 MSP ships would be short of one crew. Unless the ship has three crews, the one remaining crew would not be able to rotate off duty unless the MSP fleet shippers can find replacements on their own. Crew shortages would quickly degrade the effectiveness of the ships and potentially result in delayed deployments. One study estimated that in a best-case scenario, the US would be short 1800 qualified mariners to crew the ships earmarked for surge sealift (the 46 RRF ships and 15-16 state owned MSC vessels) during the first four to six months of a surge. This number is also somewhat optimistic, as it would require zero losses, all eligible mariners to volunteer for service, and would not allow crews rotating off duty.[9] Realistically, if war broke out, the shortage is likely to be considerably higher.

In the past couple of years, MARAD and USTRANSCOM have repeatedly voiced concern with inadequate US sealift capacity. The surge sealift

situation is particularly acute. The readiness of the surge sealift fleet has trended downward several years in a row, with a particularly steep decrease since 2015.[10] This limits the amount of military cargo that can be moved to reinforce Europe, especially if the US is engaged on two fronts. It also negatively affects the credibility of US military readiness. Thus, it is in Europe's interest to look for ways to augment the surge capability of US assistance, assistance that is often assumed to depend on political will only—or worse yet, is taken for granted.

What does Norway Have to Offer, and Why Would It Be Relevant?

The Norwegian merchant fleet is large in deadweight tons, value, and number of ships. Per January 1, 2019, the Norwegian-controlled foreign-going fleet numbered 1787 ships.[11] In contrast to the shrinking US merchant fleet, the size of the Norwegian fleet is growing. Through 2017 and 2018, the fleet has grown by 71 vessels, with over eight percent measured in deadweight tonnage.[12] The fleet ranks number five in the world in terms of value, due in large part to a large proportion of relatively new and technologically advanced offshore ships.

As tends to be the case in many Western countries, a considerable share of the merchant fleet flies convenience flags. This goes for about 55 percent of the Norwegian-controlled merchant ships, a percentage which is below the world average, but which still could create some obstacles in the event of a contingency due to US regulations. The Norwegian reflagging process is, however, relatively uncomplicated and fast. According to the Norwegian Shipowners' Association (NSA), the process can in theory be completed in less than 24 hours, but in practice the process often takes up to a couple of weeks due to banking procedures. Given the fact that all 1787 ships are included in national public–private readiness arrangements, this analysis of what Norway has to offer includes all foreign-going Norwegian controlled-ships.

The largest portion of the Norwegian-controlled ocean-going fleet is offshore service ships. However, the fleet also includes a large number of ships that would be highly relevant for sealift purposes. The Norwegian merchant fleet includes a considerable fleet of commercial RoRo vessels and a large fleet of chemical/product tankers suitable for transporting high-grade fuel. It also includes a small number of container ships and a fair number of dry cargo ships of all shapes and sizes. This study will focus on RoRos and tankers, as they are not only key components of sealift capability but also assets that Norway can provide in decent numbers. Tankers enable sealift of fuel, while RoRos with flexible decks enable sealift of a wide variety of military goods and equipment, such as vehicles and heavy machinery necessary for combat operations and base construction.

Still, other ship types are also relevant for this proposal. A quick look at the surge sealift fleet reveals that special purpose ships are old and need replacement. The aviation support ships and auxiliary crane ships are particularly old. These ships will reach 50 to 55 years of age by 2024, which is their programmed service life. Both the Army and the Marine Corps rely on these ships.[13] Norway has a large fleet of offshore special purpose ships ideal for heavy lifting and complicated support operations in rough conditions. This means that there is plenty of room for maneuvering should Norwegian authorities consider offering maritime assets in support of its main ally.

RoRo Ships

Informed by the US National Military Strategy, the US DoD has estimated that it requires 91 RoRo vessels or the equivalent of 20 million square feet of RoRo capacity. With the current age-out rates of the Rapid Response Force, the USTRANSCOM estimates that it will lose capacity equaling 4 million square feet by 2030, and an additional 5 million square feet by 2040.[14]

Norwegian ship-owning companies are heavily invested in the RoRo segment. There are at least 136 large RoRo ships in the Norwegian-controlled fleet, and shipping companies like Höegh Autoliners and Wilhelmsen Group are among the world leaders within large- and medium-sized ocean-going RoRo vessels. In December 2018, Norwegian/Swedish Wallenius-Wilhelmsen represented 22 percent of the world's RoRo fleet. Höegh, for its part, owns and operates about 50 car carriers, among them several that are suitable for "high and heavy" transport, meaning construction equipment and large rolling and non-rolling stock, such as military vehicles and equipment.

Large RoRo vessels usually transit fixed trade routes, some of which connect the US Gulf and East Coast with main ports in Europe. Regarding readiness and availability, ships that already operate transatlantic routes would be particularly

well suited for readiness agreements like the one suggested in this brief. Mixing military and commercial cargo is key to the MSP concept, and in the event of an emergency, a RoRo could unload its cargo in many large harbors to free up space, or use spare capacity to carry military equipment. According to a central industry representative, within 24 hours of notice, Norway could muster at least one large RoRo vessel ready to load on the US East Coast. Transit time would be about two weeks, leaving the total time spent from when notice is given to the ship docks in Northern Europe to less than three weeks.

Sea-Cargo's M/V SC Connector, a 155-meter long RoRo with a capacity of 9000 dt. Photo: Sea-Cargo.

In addition to the large car carriers, several Norwegian shipping companies specialize in smaller RoRo ships and multipurpose ships, e.g., Sea-Cargo and SeaTrans. Smaller RoRo vessels could be highly favorable for distributing goods and vehicles locally or regionally within Europe. A combination of large RoRos for transatlantic passage to, e.g., Scotland, with smaller ones redistributing equipment to smaller ports closer to the deployed troops could be beneficial. Using smaller vessels would contribute to reducing risk, as each vessel would carry less cargo and hence be less valuable targets. Smaller ships would also be more flexible in terms of the choice of passage and ports, which would reduce predictability in the face of an enemy.

Chemical tankers and product tanker capacity

Norwegian shippers own a large number of tankers within different segments (crude, product, and chemical). Both product tankers and chemical tankers are relevant to this suggestion, but chemical tankers are the most versatile. Modern chemical tankers have a large number of tanks, some up to 50 tanks, and each can be loaded with very different products. This means that this type of tanker would not necessarily need to unload all of its cargo before loading fuel in vacant tanks. Product tankers also have several separate tanks coated on the inside to limit pollution from past cargo. Although these ships usually have a lower number of tanks and may be unfit for jet fuel, their tanks are usually larger than those of chemical tankers. Pumps unload tanks separately, meaning free capacity can be used even if some of the tanks are already loaded.

Norway ranks number one in terms of chemical tanker operators in the world. The two largest companies are both Norwegian (Odfjell and Stolt-Nielsen). Looking at the top 30 tanker companies globally, six Norwegian operators hold 25 percent of the world's chemical tanker fleet.[15] According to numbers acquired from the Norwegian Shipowners' Association, there are about 239 chemical tankers in the Norwegian-controlled foreign-going fleet as well as 78 "other oil tankers."[16] What characterizes the Norwegian controlled tanker fleet is, according to one industry actor, that the fleet is technologically very advanced and comparatively new, with the average age of ships currently about 10 years.[17] The combined tanker fleet further consists of large ocean-going tankers and smaller coastal tankers, which could be used to redistribute fuel from larger ones. The smaller tankers would be particularly well suited for narrow waterways, e.g., those found along the Norwegian coastline.

Odfjell's M/V Bow Summer. A Norwegianflagged chemical tanker with 40 separate tanks. Photo: Odfjell

Norwegian shipping companies also own important infrastructure that could be of use. A chemical tanker company like Bergen-based Odfjell Shipping, for instance, operates several fixed trade routes, among them a trade line between Houston and Antwerp, where it owns seven terminals.[18] Wilhelmsen Group has an extensive network of

representatives around the globe, with people on the ground at 2200 port locations in 74 countries.[19] Stolt-Nielsen also has the world's largest fleet of tank containers. These tanks are placed in a shipping container-size steel frame (20 ft), which enables their handling and shipping as standard containers. Accordingly, they can easily be transferred from ship to rail or road. Stolt-Nielsen owns 35,000 such containers, which corresponds to about 10 percent of the world total. These containers are dispersed in a global network of 21 depots operated by the company.[20] This type of container is increasingly used for military purposes to transport fuel and water to forward operating bases, and even though there are tank containers specifically fitted for military use, "civilian" tank containers are likely to have great military value and use in case of large-scale deployments.

Tank container illustration photo

In the event of a war between major powers, securing fuel supply is key to all branches of the US military. Sealift plays a fundamental role in providing this fuel. A series of DoD mobility studies concluded in 2016 that the sealift requirement of the DoD in terms of tankers is 86 vessels in a planning scenario to sustain operations.[21] A more recent Center for Strategic and Budgetary Assessments (CSBA) study suggests that the requirement may in fact be considerably higher. It argues that the DoD calculations fail to take into account the effects of attrition, as well as the increased distribution of forces, and that the number may not include the tankers used to support the Navy.[22] Irrespective of whether the correct number is 86 or higher, the USTRANSCOM is very short in terms of tanker capacity. The Dry Cargo and Tankers Program of the Military Sealift Command itself has only six tankers at its disposal, while the RRF has only one; meanwhile, there are only two commercial product tankers on call as part of the MSP. In total, the DoD currently has a total of only nine vessels at its disposal for tanker sealift purposes. According to the CSBA study referred to above, there are 46 militarily useful tankers engaged in US domestic trade that could be mobilized. However, even if all of these tankers were made available to the DoD (which would have negative consequences for domestic distribution of fuel), there would still be a gap of 31 tankers. There are currently no US-flagged chemical tankers in the ocean-going merchant fleet. Table 1 sums up the discrepancies between RoRo and tanker requirements versus ships at disposal, surge and sustainment fleets combined. The table includes only ships currently at USTRANCOM's disposal.

Table 1. *US shortage of tankers and RoRo capacity*[23]

	RRF	MSC	MSP	Total	Required	Shortage
RoRo	35	10	18	63	91	28
Tankers	1	6	2	9	86	77

A major war scenario in Europe, or in the vicinity of Europe, may very well include a situation where European fuel storage facilities and refineries have been attacked or sabotaged, increasing the need for flexible fuel transport in order to secure the operability of European military assets. While governments could probably scramble some fuel tanker capacity from the spot market in the event of a crisis, a better option would be to have preplanned arrangements in place that would assure that suitable allied-controlled ships could serve the needs of USTRANSCOM, and by extension, the NATO alliance. It should be noted that given the large discrepancy between requirements and ships at disposal, a contingency plan involving Norwegian tankers would probably not cover the needs entirely in a major war scenario. Still, it would likely be a very useful supplement in a situation of armed conflict.

Advantages of a Norwegian Contingency versus Acquiring Ships from the Spot Market

As evident from the discrepancies between US sealift requirements and the actual assets at USTRANSCOM's disposal, the US likely needs to scramble additional ships from the commercial market in case of major deployments. This study has proposed a bilateral agreement though which Norway supplies additional sealift capacity to USTRANSCOM. In accordance with such an

agreement, Norwegian authorities would be tasked with acquiring an agreed-upon number of suitable Norwegian-owned ships and to shoulder the costs, or at least share the costs.[24]

There are several advantages associated with such a bilateral agreement, besides costs. One major advantage concerns the fact that Norwegian authorities and shipowners already have a long-standing mutual understanding that shippers have a role to play in national emergencies. Due in large part to the long, varied, and deeply indented coastline of Norway, combined with a mountainous inland, the shipping sector is a key component in Norwegian total defense planning. This means that a Norwegian contribution to US sealift capacity in the event of a crisis involving NATO would benefit from a long-established and close collaboration between government ministries (the Ministry of Defense and the Ministry of Trade, Commerce and Fisheries) and the Norwegian Shipowners' Association for readiness and crisis management. The NSA thus has its own contingency department, one which greatly facilitates the scrambling of ships for emergencies.

A liaison mechanism called NORTRASHIP is tasked with facilitating close cooperation between the maritime sector and the Norwegian government. NORTRASHIP consists of a small board of members from the shippers, insurance, the Norwegian Armed Forces, and governmental ministries. In peacetime, this small cadre has an advisory function only—but in case of a major war, the board would be prepared to take on an operational function on request from the Norwegian Government. In a crisis short of a major emergency, the Shipowners' Association would handle requests for assistance coming from the government. Emergency lines of communication between the Ministry of Trade and Industry, the Norwegian Armed Forces, and the Shipowners' Association are designed primarily for a situation where Norway is under attack. Still, the Norwegian Government uses these arrangements to solve other types of emergencies as well, such as when a Norwegian seismic vessel was redirected to evacuate UN and diplomatic personnel from Yemen in 2015 on request from the World Food Program.[25] DNK issued war risk insurance within an hour, and the ship evacuated the personnel less than five hours after the alert.[26]

In fact, Norwegian shippers have a history of serving NATO countries in war. During World War II, ships requisitioned by the government made an important contribution to the Allied fight against the Axis powers. Specifically, the Norwegian merchant fleet played a key role in transporting fuel and supplies for the Allies across the Atlantic. The tankers in particular have been described as "the artery of the Allied fight for victory."[27] To Winston Churchill, "Norwegian seafarers were worth more than a million soldiers" according to some sources.[28] However, the fleet sustained high losses. About 3700 mariners and more than 700 ships were lost serving the Allies.[29] This legacy arguably still affects the Norwegian shipping community, which to a large extent consists of family-owned shipping companies, most of which were affected by World War II hardships. As a result, many shippers still take pride in their company having served the nation and the Allies, even as the Norwegian Armed Forces had been forced to capitulate in Norway proper. The Norwegian shipping community is thus closely associated with the idea of a Norwegian total defense, meaning the mutual support of the civilian, commercial, and Armed Forces in times of war. A common understanding, practical arrangements, and importantly, the lack of red tape within the existing readiness agreements are three factors that could help facilitate a swift mustering of commercial ships for a US-led contingency within the NATO area.

M/T Havbør, forming part of a Norwegian convoy, has been torpedoed in November 1940. Photo: Unknown

On several occasions, Norwegian shippers have also been involved in US military transport, such as when supporting operations in Afghanistan and during the first and second Gulf Wars. Currently, the Wilhelmsen Group is heavily involved in US sealift through its US subsidiary, American RoRo Carriers (ARC). ARC currently has eight large US-flagged RoRo carriers enrolled in the Maritime Security Program.[30]

In a major powers war, other powers outside Western ones will likely also seek to control civilian shipping. The purpose could be to deny Western use of this auxiliary capacity, or to use it themselves. When it comes to tankers, China and Russia comprise a growing proportion of the global market. China in particular has grown quickly in terms of shares of the world fleet measured in dead weight tonnage. In the event of a major power war, China and Russia may want to exert pressure on tanker operators (or operators of any important maritime asset) not to cooperate with their enemy.[31] There are of course no guarantees that no Norwegian shipper would be pressured or tempted to sign contracts with an adversary to Norway. Yet, shippers interviewed for this study pointed out that in the event of war, it is very much in their interest to "be on the right side of history."[32] This means they would likely not choose short-term profit over potential reprisals and long-term shaming. It would also mean they would take measures to avoid having their ships seized by an enemy of Norway or being affected by wartime regulations of their flag state should it be foreign flagged. A quick and easy reflagging process is tailored to meet the demand for Norwegian-owned vessels to reflag and avoid such situations in times of conflict.

By working with the Norwegian Shipping Association and relying on this organization's in-depth familiarity with its member companies, the Norwegian government would be well positioned to contract reliable industry actors compared to a solution where the USTRANCOM would conduct regular chartering through the spot market. For instance, in a potential conflict with Russia, one would necessarily want to avoid using Norwegian-owned civilian ships with Russian crew members. Due to its intricate industry knowledge, the Shipowners' Association representatives would know which shipping companies to avoid in the first place.

A premediated agreement that places the responsibility for acquiring a certain number of additional sealift vessels on the Norwegian Government is likely to reduce reaction time significantly as opposed to USTRANSCOM searching the global market for militarily useful ships. There are several reasons for this. First, identifying useful ships is fast. The Shipowners' Association and its mutual insurance partner, Norwegian Ship Owners Mutual War Risks Insurance Association (DNK for short), are co-located and control an advanced operations room with a high level of global situational awareness. Members of DNK are offered free sensor technology (called Raptor),[33] which enables two-way secure data connection with all vessels worldwide. While intended to reduce the need for reporting calls and transits through areas with higher premiums, it also arranges for increased security for ships, as it provides both ships and the DNK central updates every seven minutes. In this way, the DNK operations room has a near real-time picture of all the 2700 ships under its cover. Considering the Norwegian ocean-going fleet makes about 80,000 port calls around the world every year,[34] there is a large forward presence of Norwegian-controlled ships around the globe at all times. This facilitates the process of identifying suitable ships well placed (from a geographical and practical standpoint) for strategic transport on short notice.

Reaction times are also short due to lack of red tape and uncomplicated procedures. After the Shipowners' Association has received a task and the required ship(s) have been identified, phone calls are made to shippers to request the ships be redirected and used on behalf of the government. Time-saving standard contracts exist for dry cargo, while a corresponding standard contract for tankers is in the process of being prepared. The Shipowners' Association can thus place a request directly to the shipper controlling the most useful ships without tedious tendering processes. In short, a high level of situational awareness, established liaisons between shippers, the Armed Forces, and the Government, coupled with direct access to a large number of available ships, are factors that help reduce reaction time and facilitate a flexible Norwegian addition to US surge sealift capacity.

A somewhat different advantage of using Norwegian-controlled vessels for sealift purposes relates to insurance. Almost all Norwegian-controlled ships are insured by the mutual insurer DNK, which provides war cover for shipping and offshore industry affected by war, terrorism, or piracy. What is special about DNK is that it is, according to the association itself, the only provider in the world of insurance in the event of a war between *major powers*. The normal procedure is for all insurances to automatically be terminated in the event of a major powers war, but DNK offers an extended cover for 30 days with a maximum aggregate limit of USD one billion.[35] This means that ships covered by DNK are the only ones that can operate with insurance in a war where the US faces China or Russia. While this extended war cover is

available to most Norwegian-controlled ships, it does not apply automatically and its costs are likely to be high. The insurance is, however, meant to reduce insecurity while awaiting a Norwegian state guarantee to come into place.

In order for the advantages discussed above to work as intended, the client—in this case, both the Norwegian Government and the USTRANCOM—must be ready to voice its need in a clear and simple manner and to confide in the shippers to find the best practical solutions. For hierarchical militaries, this may be challenging, as this is simply not the way decision-making works within military organizations. At the same time, the Armed Forces have to take much higher security precautions at all stages of civil–military interaction due to concerns with operational security. Shippers may not always have the potential to operate in the safest way possible unless there is close cooperation with the military end-user. As long as procedures are kept simple and red tape is minimized, there is great untapped military potential in the Norwegian shipping sector.

This suggestion is for an arrangement whereby Norwegian ships would be used for operations inside the NATO area, preferably to reinforce Europe. However, once practical arrangements have been made and trust is established, cooperation between USTRANCOM and the shippers could be taken advantage of in other circumstances as well. If the US would need to supplement in-house sealift capacity in other theaters, such as in a potential operation in the Pacific Ocean, Norwegian shippers could be approached. Some would probably hesitate, perhaps due to commercial relations with China, but others would contribute.

There are, however, some obstacles to Norwegian ships contributing to US sealift. The DoD is required by a series of policy directives and laws to, as far as possible, rely on US-flagged vessels for sealift. The purpose of such requirements is to protect a strategically important industry and to guarantee a certain degree of patriotic motivation that will make sure ships actually carry out the intended voyages and not refuse to deliver cargo in war zones.[36] While the USTRANSCOM has extensive experience using foreign transport ships for sealift purposes, US ships are not only clearly preferred, but there seems to be a certain level of distrust with respect to foreign ships. In a Senate hearing in April 2018, General Darren W. McDew, Commander, USTRANSCOM, for example, warned that if the sealift situation continued to deteriorate, US Forces may have to rely on foreign-flagged ships for sustainment. The general further pointed to Operation Desert Shield, when, out of 192 foreign-flagged vessels, 13 refused to enter the area of operations, thus delaying resupply to US troops.[37] The issue of US loyalty is hence a concern if and when USTRANCOM needs to scramble additional sealift capacity from the spot market. Given that US authorities, for practical, legal, and security reasons, prefer US-flagged and US-owned vessels manned by mainly US mariners, relying on Norwegian ships may not be the optimal solution, but it may very well be the *second* best option, especially concerning loyalty and reliability.

What Would It Take?

The fact that US sealift capacity currently is alarmingly low should be regarded as a challenge to all NATO countries. Norway, a small NATO member but a major shipping power, depends on US support to defend its territory in the event of war. It should therefore initiate discussions with the US on how Norway could contribute to ensuring US ability to deploy forces far from home should the need arise. USTRANCOM would benefit from premediated agreements with a close ally for sealift support. Not only would it help solve the close-to-medium term problem of how to muster the required tonnage, it would be unlikely to require a change in US laws or regulations, as the agreement would not be for Norwegian ships to *substitute* US ships, but strictly to *supplement* them in the event of a major crisis or war.

The Norwegian merchant fleet has a long tradition of supporting allied operations and is a considered a key component in the nation's total defense. What is needed first is political initiative and the commitment to assume the costs when the agreement is activated. Second, should a bilateral agreement for sealift support be signed between the two countries, tabletop exercises that test routines and communication, as well as the mere problem-solving ability of the fleet, would likely better prepare both the shippers and the end-users for a Norwegian contribution to US sealift. Security arrangements would necessarily also be worked out on a general basis in such an agreement. This could prove challenging, as the US Navy signaled in 2018 that in the event of a major war, the Navy would not have resources to escort US sealift vessels.[38] Importantly, any bilateral discussions on

such a contribution should include the shipowners' representatives from the start.

Finally, one of the challenges to this proposal may be political resistance toward bilateral agreements as opposed to an agreement under the official NATO umbrella. Some may argue that agreements that do not encompass a large number of member states in fact undermine the unity of the NATO alliance, and that initiatives such as the one suggested here belong under NATO authority. Yet, bilateral agreements to carry out particular functions are not only commonplace within the NATO structure, but they are also key enablers to the day-to-day workings of the alliance. All NATO nations should welcome a bilateral agreement between Norway and the US that allows Norwegian commercial ships to provide much-needed US sealift capacity. Such an agreement would not be beneficial to Norway or the US alone. Rather, it would serve all of NATO by helping the biggest military power within the alliance remain potent—and by that, increase its ability to react to threats facing its European allies. Most importantly, perhaps, it would make the rapid deployment of superior US conventional fighting power more viable and thus significantly improve its inherent deterring effect.

MAIN POINTS: US Sealift Shortage

Problem:

- Low organic capacity for surge sealift within the Maritime Sealift Command.
- An aging and outdated Ready Reserve Force surge fleet
- Inadequate numbers of mariners to crew both surge fleet and the commercial sustainment fleet.
- A large gap in tanker capacity within the Maritime Sealift Command compared to stipulated needs.

Solution:

- A US–Norwegian contingency agreement providing transatlantic sealift capacity to the US in the event of a surge involving NATO.
- Tanker and RoRo ship capacity in close cooperation with the Norwegian Shipowners' Association and its mutual insurer (DNK).

[1] Military Sealift Command, "Sealift Program". http://www.msc.navy.mil/PM5/

[2] US Department of Defense. "USTRANSCOM Commander: Sealift Fleet Urgently Needs Recapitalization," March 8, 2019, https://dod.defense.gov/News/Article/Article/1779895/transcom-commander-sealift-fleet-urgently-needs-recapitalization/.

[3] The brief discusses some practical requirements, but does not consider potential legal obstacles, nor does it provide calculations of costs.

[4] US Government Accountability Office (GAO). "Navy Readiness. Actions Needed to Maintain Viable Surge Sealift and Combat Logistics Fleet". Report to Congressional Committees, August 2017. https://www.gao.gov/assets/690/686733.pdf

[5] Commercially owned and operated ships can only be enrolled in the Maritime Security Program until the ship reaches 25 years of age, which secures a much younger fleet on average than is the case for the surge fleet.

[6] Access to commercial fleets is formalized through DoD contracts, MARAD Voluntary Intermodal Sealift Agreement (VISA), the Maritime Security Program (MSP), and the Voluntary Tanker Agreement (VTA). US House of Representatives January 17, 2018. Statement of Mark H. Buzby. "The State of the U.S. Flag Maritime Industry". https://www.maritime.dot.gov/sites/marad.dot.gov/files/docs/newsroom/congressional-testimony/9706/2018-01-17-buzbytestimony.pdf

[7] There are also about a hundred large privately owned oceangoing vessels in domestic US trade. United States Senate, "Statement of Mark Buzby Administrator Maritime Administration U.S. Department of Administration Before the Committee on Commerce, Science, and Transportation, Subcommittee on Surface Transportation and Merchant Marine Infrastructure, Safety and Security, United State Senate, Hearing on Maritime Transportation: Opportunities and Challenges, April 24, 2018". https://www.transportation.gov/content/maritime-transportation-opportunities-and-challenges

[8] Ibid.

[9] US House of Representatives January 17, 2018. See note 6.

[10] GAO 2017. See note 4.

[11] This category includes all ships registered in the Norwegian International Ship Register (NIS), ships registered in the Norwegian Ordinary Ship Register (NOR) and engaged in international trade, plus ships sailing under a foreign flag while owned by Norwegian-controlled shipping companies, meaning companies that have 50 Percent Norwegian ownership or more. Norwegian Shipowners' Association, "Maritime Outlook Report 2019". https://rederi.no/en/rapporter/

[12] Ibid and the United States Department of Transportation, the Bureau of transportation Statistics "Number and Size of the US Flag Merchant Fleet and its Share of the World Fleet", 25 May, 2019. https://www.bts.gov/content/number-and-size-US-flag-merchant-fleet-and-its-share-world-fleet

[13] GAO 2017, see note 4, https://www.gao.gov/assets/690/686733.pdf

[14] United States Congress. Committee on Armed Services. "Logistics and Sealift Force Requirements, Hearing Before the Subcommittee on Seapower and Projection Forces of the Committee on Armed Services, US House of Representatives, One Hundred Fourteenth Congress, Second Session, March 22, 2016". Statement of Lt Gen Stephen R. Lyons, US Army Deputy Commander, United States Transportation Command. https://www.hsdl.org/?abstract&did=794905

[15] ShipsFocus Intelligence 2019, "World's Chemical Tanker Operators Rankings 2019" https://www.shipsfocus.com/wp-content/uploads/2019/03/Worlds-Top-Chemical-Tanker-Operators-Rankings-2019.pdf

[16] Norwegian Shipowners' Association. "Statistics and key figures 2018". https://rederi.no/om-oss/statistikknokkeltall/

[17] Conversation with Odfjell senior manager April 3, 2019.

[18] Odfjell 2019. "Odfjell Annual Report 2018". https://ml-eu.globenewswire.com/Resource/Download/e64384df-31da-45b9-9487-47c66482ac7d

[19] See Wilhelmsen Group's home page, https://www.wilhelmsen.com/

[20] Se Stolt-Nielsen 2019. "About Stolt Tank Containers" https://www.stolt-nielsen.com/en/our-businesses/stolt-tank-containers/about-stolt-tank-containers/

[21] United States Congress, 2016, See note 14.

[22] Walton, Timothy A., Ryan Boone and Harrison Schramm. "Sustaining the Fight. Resilient Maritime Logistics for a New Era", Center for Strategic and Budgetary Assessments, 2018. https://csbaonline.org/research/publications/sustaining-the-fight-resilient-maritime-logistics-for-a-new-era/publication

[23] Numbers from Military Sealift Command 2019, https://www.msc.navy.mil/inventory/ and United States Congress, 2016. See note 14.

[24] This paper does not recommend an exact number of ships for a Norwegian contribution.

[25] Sysla, "Reddet FN-ansatte fra Jemen," 2015. https://sysla.no/maritim/reddet-fn-ansatte-fra-jemen/

[26] Asbjørn Lysgard and Ole Christian Tenden, "The Norwegian Merchant Fleet – The Small State's Multi Tool for Future Crisis". *Arts and Social Sciences Journal* 10, 3 (2019).

[27] Admiral of the Fleet, Viscount Cunningham of Hyndhope, quoted in A.H. Rasmussen, *Menn uten medaljer: En saga om og av norske sjøfolk*, (Oslo, J.W. Cappelens forlag, 1964), 9.

[28] The origins of the quote are uncertain. See Stig Tenold, *Norwegian shipping in the 20th century. Norway's successful navigation of the world's most global industry*, (Palgrave Macmillan, 2019), 134.

[29] Ibid.

[30] Since US regulation requires that ships enrolled in the MSP be US-flagged and US-owned, ARC is formally owned by a US holding company called Fidelio. This arrangement ensures that the ships technically are US-owned. The ships are mainly US-manned as well. See Wallenius Wilhelmsen Logistics ASA, "Registration Document", 2018. Available at https://www.walleniuswilhelmsen.com/globalassets/investor-relations/bonds/loan-agreement-no-0010831654.updated.pdf

[31] Walton, Boone and Schramm, 2019. See note 22.

[32] Conversation with representative of the Norwegian Shipowners' Association, June 28, 2018.

[33] According to DNK, Raptor cannot be compared with AIS and is not designed to replace AIS reporting. See DNK, "Raptor-Tracking," 2019. https://www.warrisk.no/raptor-tracking/

[34] Norwegian Shipowners' Association 2019. See note 11.

[35] Email correspondence with DNK's Insurance Director, October 3, 2018. See also https://www.warrisk.no/cover/dnk-special-covers/

[36] GAO 2017, see note 4 above.

[37] US Senate, "Statement of General Darren W. McDew, United States Air Force, Commander, United States Transportation Command Before the Senate Armed Services Committee On the State of the Command," April 10, 2018. https://www.armed-services.senate.gov/imo/media/doc/McDew_04-10-18.pdf

[38] David B. Larter, "'You're on your own': US sealift can't count on Navy escorts in the next big war". Defense News, 2018. https://www.defensenews.com/naval/2018/10/10/youre-on-your-own-us-sealift-cant-count-on-us-navy-escorts-in-the-next-big-war-forcing-changes/

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Cover Photo
Torgeir Haugaard, Norwegian Armed Forces
www.mediearkiv.forsvaret.no

ISSN
P: 2535-7956

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