



## Testimony

Before the Subcommittee on Coast  
Guard and Maritime Transportation,  
Committee on Transportation and  
Infrastructure, House of Representatives

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# MARITIME SECURITY

## DOT Is Still Finalizing Strategy to Address Challenges to Sustaining U.S.-Flag Fleet

### Accessible Version

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# GAO Highlights

Highlights of [GAO-19-260T](#), a testimony before the Subcommittee on Coast Guard and Maritime Transportation, Committee on Transportation and Infrastructure, House of Representatives

## Why GAO Did This Study

The U.S. government relies on U.S.-flag vessels to transport cargo and provide a pool of U.S.-citizen mariners who could be called upon to support defense needs in times of war or crisis. Through financial support and by requiring government agencies to ship certain cargo on U.S. flag vessels, the United States has supported the viability of the U.S.-flag fleet. However, concern has grown about the fleet's future sustainability. In 2014, Congress mandated that DOT develop national strategies to address this issue.

This statement summarizes GAO's August 2018 report on challenges in sustaining the U.S. flag fleet for defense purposes and DOT's efforts to draft a national maritime strategy that addresses these challenges. Specifically, it discusses: (1) the status of the mandated national strategies and (2) challenges that stakeholders identified related to sustaining the U.S.-flag fleet and options DOT has considered for addressing them.

For the August 2018 report, GAO reviewed relevant laws, regulations, reports, and studies. GAO also analyzed data on international government cargo and interviewed officials from DOT and DOD, vessel operators, and other stakeholders. For this statement, GAO spoke to DOT officials for an update on the status of the strategy.

## What GAO Recommends

In the August 2018 report, GAO recommended that DOT complete the national maritime strategy and establish time frames for its issuance. DOT concurred with the recommendation.

View [GAO-19-260T](#). For more information, contact Andrew Von Ah at (202) 512-2834 or [vonaha@gao.gov](mailto:vonaha@gao.gov).

November 29, 2018

## MARITIME SECURITY

### DOT Is Still Finalizing Strategy to Address Challenges to Sustaining U.S.-Flag Fleet

## What GAO Found

The Department of Transportation (DOT) is still finalizing the national maritime strategies that were called for in two separate mandates by Congress in 2014. According to DOT officials, DOT has been working on a single draft maritime strategy to meet both mandates. This strategy is intended to address how to make vessels registered to the United States (U.S.-flag vessels) more competitive in the international cargo market. It is also intended to address how to ensure the long-term viability of U.S.-flag vessels and U.S.-citizen mariners. The Department of Defense (DOD) counts on U.S.-citizen mariners that work on U.S.-flag vessels to crew the government-owned reserve fleet during a crisis. In an August 2018 report, GAO concluded that by not completing the strategy or establishing a timeline for completing it, DOT had delayed providing decision-makers the information they needed to address challenges facing the U.S. flag fleet. Subsequently, with the passage of the John S. McCain National Defense Authorization Act for Fiscal Year 2019, Congress extended the deadline for the strategy to February 2020. According to DOT officials, DOT will issue the strategy by the new deadline.

Stakeholders GAO spoke with for its August 2018 report identified two primary challenges to ensuring that the U.S.-flag fleet would continue to meet DOD's national defense needs: (1) maintaining the financial viability of the U.S.-flag fleet, which is threatened by the increasingly higher costs of operating U.S. vessels compared to foreign flag vessels and a decrease in government cargo being shipped internationally; and (2) a potential shortage of U.S. citizen mariners available to support defense needs, in part due to the declining numbers of U.S.-flag vessels that employ these mariners. For example, the number of U.S. flag vessels involved in international trade declined from 199 vessels at the end of 1990 to just 82 vessels by the end of 2017. DOT officials have identified some options to make U.S.-flag vessels more competitive, increase the amount of commercial cargo on U.S. flag vessels, and address a potential shortage of U.S.-citizen mariners, although they are not ready to assess their feasibility or formally propose these options.

- To address the challenge of maintaining the financial viability of U.S.-flag vessels, DOT has identified options such as changing regulations to decrease the costs of bringing a ship under the U.S. flag and requiring that certain energy export commodities, such as oil or liquefied natural gas, be carried on U.S.-flag vessels.
- To address the potential shortage of U.S.-citizen mariners, DOT convened a working group to determine how many mariners would be needed to meet defense needs. The working group estimated a shortage of over 1,800 U.S.-citizen mariners in the event of a sustained military activation, although it also recommended data improvements to increase the accuracy of the count of available mariners. In addition, the working group identified two actions that could help increase the number of U.S.-citizen mariners: (1) developing a reserve program to identify and support qualified mariners willing to sail to support defense needs during an emergency and (2) expanding programs and requirements that support U.S.-citizen mariners, such as requirements that government agencies must ship certain cargo on U.S. flag vessels.

Chairman Mast, Ranking Member Garamendi, and Members of the Subcommittee:

Thank you for the opportunity to discuss our work on efforts by the Departments of Transportation (DOT) and Defense (DOD) to draft a national maritime strategy that addresses challenges the government faces in supporting the fleet of U.S.-flag vessels.<sup>1</sup> DOD largely relies on internationally-trading U.S.-flag vessels (vessels registered in the United States that must be mainly crewed by U.S. citizens) for sealift—the process of transporting government equipment and supplies by sea for military purposes. However, it has long been recognized that the operating costs of U.S.-flag vessels are higher than the operating costs of foreign-flag vessels, and that government support is therefore necessary to maintain a fleet of internationally trading U.S.-flag vessels.<sup>2</sup> To help ensure an adequately-sized U.S.-flag fleet for defense needs, the government supports internationally-trading U.S.-flag vessels in the following ways: (1) through the Maritime Security Program (MSP), which provides the operators of selected U.S.-flag vessels a stipend in exchange for their agreeing to provide sealift support in times of war or crisis, and (2) through “cargo preference” requirements that specify that federal agencies must transport certain percentages of international government cargo on U.S.-flag vessels.

Despite the MSP and cargo preference requirements that have helped support the U.S.-flag fleet, concerns have been raised about the fleet’s future sustainability. The U.S.-flag fleet has been in decline for many years.

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<sup>1</sup>GAO, *Maritime Security: DOT Needs to Expediently Finalize the Required National Maritime Strategy for Sustaining U.S.-Flag Fleet*, [GAO-18-478](#) (Washington, D.C.: Aug. 8, 2018).

<sup>2</sup>The U.S. government also supports U.S.-flag vessels operating in domestic trade through what is commonly referred to as the Jones Act (Merchant Marine Act of 1920, Pub. L. No. 66-261, § 27, 41 Stat. 988, 999 (1920) (codified as amended at 46 U.S.C. § 55102)), which, in general, requires that maritime transport of cargo between points in the United States be carried by vessels that are U.S. flag and constructed in the United States. Jones Act vessels may be called upon to support sealift by DOD in certain circumstances. However, our August 2018 report focused on the internationally-trading U.S.-flag fleet, thus it does not focus on the Jones Act. For more information about the Jones Act, see GAO, *Puerto Rico: Characteristics of the Island’s Maritime Trade and Potential Effects of Modifying the Jones Act*, [GAO-13-260](#) (Washington, D.C.: Mar. 14, 2013).

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and increasingly faces difficulties in competing for international cargo due to the higher costs of operating under the U.S. flag. Notably, the number of U.S.-flagged vessels has continued to decline—from 199 vessels at the end of 1990 to just 82 vessels by the end of 2017, creating a potential shortage of U.S. citizen mariners to crew government-owned reserve vessels in times of need.<sup>3</sup> Recognizing these and other challenges, Congress statutorily mandated in 2014 that DOT develop national strategies related to the sustainability of the U.S.-flag fleet, including recommendations for the future. In the John S. McCain National Defense Authorization Act for Fiscal Year 2019,<sup>4</sup> the statutory deadline for the national maritime strategy was extended from February 2015 to February 2020.

My statement today provides information on (1) the status of the mandated national strategies and (2) challenges that stakeholders identified related to sustaining the U.S.-flag fleet for defense needs and options DOT has considered for addressing them. This statement is based on our August 2018 report on challenges to sustaining U.S.-flag vessels for military needs.<sup>5</sup>

For the 2018 report, we reviewed relevant laws, regulations, guidance, prior GAO reports, and studies related to MSP and maritime economics. We also analyzed data for fiscal year 2012 through 2017 on international cargo shipped by government agencies. In addition, we spoke with officials from DOT, DOD, and selected agencies subject to cargo preference requirements, as well as MSP vessel operators, academics knowledgeable about maritime issues, and other stakeholders. Detailed information on our scope and methodology can be found in our issued report. For this statement, to update the status of DOT's efforts on the

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<sup>3</sup>According to DOD and DOT, mariners are necessary to crew not only the U.S.-flag commercial vessels but also the U.S. government-owned reserve cargo vessels. These vessels are held in reduced operating status with minimal crew in peacetime. When put into full operating status the government needs to add additional trained and qualified mariners to operate them. Because mariners work on vessels for months at a time, commercial vessels typically have at least two full sets of mariners to crew a single vessel—one set of which is on the vessel while the other is on leave. In times of crisis, one set of mariners could continue to work on the commercial vessel, while some of those on leave could be called upon to voluntarily crew vessels in the government-owned reserve fleet.

<sup>4</sup>Pub. L. No. 115-232, § 3513(b), 132 Stat. 1636 (2018).

<sup>5</sup>[GAO-18-478](#).

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national maritime strategy, we reviewed the John S. McCain National Defense Authorization Act for Fiscal Year 2019<sup>6</sup> and spoke to DOT officials. We conducted the work on which this statement is based in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

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## DOT Has Not Finalized a National Maritime Strategy but Plans to Do So by New February 2020 Deadline

In 2014, Congress issued two separate mandates to DOT to develop strategies related to challenges facing the U.S.-flag fleet, specifically:

- The Secretary of Transportation was directed to develop a national maritime strategy with recommendations to, among other things, help U.S.-flag vessels remain competitive.<sup>7</sup>
- The Secretary of Transportation and the Maritime Administration (MARAD) within DOT were directed to develop, in collaboration with DOD, a national sealift strategy to ensure the long-term viability of U.S.-flag vessels and U.S.-citizen mariners.<sup>8</sup>

As we reported in August 2018, according to MARAD and DOD officials, MARAD has been working on a single draft maritime strategy to meet both mandates because the broader national maritime strategy would need to encompass the national sealift strategy, as well.

While there is no statutory deadline for the completion of the national sealift strategy, in the John S. McCain National Defense Authorization Act for Fiscal Year 2019,<sup>9</sup> the statutory deadline for the national maritime

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<sup>6</sup>Pub. L. No. 115-232, 132 Stat. 1636 (2018).

<sup>7</sup>Pub. L. No. 113-281, § 603, 128 Stat. 3022, 3061 (2014).

<sup>8</sup>Pub. L. No. 113-76, 128 Stat. 5, 598 (2014).

<sup>9</sup>Pub. L. No. 115-232, § 3513(b), 132 Stat. 1636 (2018).

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strategy was extended from February 2015 to February 2020. In our August 2018 report, we noted that MARAD officials had completed a draft strategy in 2016, but they told us that the strategy was subject to the new administration's review. At that time, MARAD and DOT officials told us that they viewed the existing draft strategy as pre-decisional and could provide no timeline for when they planned to move the strategy forward. In our report, we concluded that the delay in submitting the strategy to Congress had resulted in decision-makers not having the information they needed and recommendations from the agency to inform policy-making in this area. We recommended that DOT complete the national maritime strategy and establish time frames for its issuance. DOT concurred with our recommendation. In our recent discussions with DOT officials after passage of the John S. McCain National Defense Authorization Act for Fiscal Year 2019, they told us that DOT now plans to meet the new statutory deadline and issue the strategy by February 2020.

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## Stakeholders Identified Two Primary Challenges to Supporting the U.S.-Flag Fleet for Defense Needs, and DOT Has Identified Various Options to Address Them

Stakeholders we spoke with for our August 2018 report identified two primary challenges to ensuring that the U.S.-flag fleet would continue to meet DOD's national defense needs.<sup>10</sup> First, they described maintaining the financial viability of U.S.-flag vessels participating in MSP as a challenge. Second, stakeholders identified a potential shortage of U.S. citizen mariners available to crew the government-owned reserve fleet during a military activation as a challenge, in part due to the declining numbers of U.S.-flag vessels that employ these mariners. In our August report, we noted that MARAD had identified some options to address the competitiveness of U.S.-flag vessels and the long-term viability of the U.S.-citizen mariners—issues that are very similar to the key challenges identified by stakeholders. However, DOT and MARAD officials had stated that they were not yet ready to address the feasibility of these options, or formally propose them.

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<sup>10</sup>These stakeholders included MARAD and DOD officials, MSP vessel operators, labor unions, an international ship-registry service, a maritime association, and academics with backgrounds in defense transportation, food assistance, and maritime economics.

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## Maintaining Financial Viability of the U.S.-Flag Fleet

According to MARAD officials, the relative cost of operating a U.S.-flag vessel compared to a foreign-flag vessel has increased in recent years, making it more challenging for vessel operators to remain economically viable under the U.S. flag. In our August report we found that financial support to U.S.-flag vessels through both the MSP stipend and the government cargo preference requirements has helped ensure a sufficient number of internationally trading U.S.-flag vessels are available to meet DOD's most recently stated cargo capacity needs from such vessels.<sup>11</sup> On the other hand, according to MARAD officials, the additional cost of operating a U.S. flag vessel compared to a foreign-flag vessel has increased—from about \$4.9 million annually in 2009 and 2010 to about \$6.2 to \$6.5 million currently—making it harder for such vessels to remain financially viable. This cost differential results primarily from the rising relative costs of employing U.S. versus foreign mariners as crew. Compounding the increasing costs of operating U.S. flag vessels, the volume of government cargo—a key source of revenue for many U.S.-flagged vessels—has fallen in recent years as the international military presence of the United States and funding for food aid overseas have both declined. In response to these challenges, Congress increased the MSP stipend from \$3.5 million to \$4.99 million per vessel from fiscal year 2016 to 2017. MARAD officials said this increase has temporarily stabilized the financial situation of MSP vessel operators. However, they added that trends in operating costs and government cargo suggest that the ability to retain an adequate number of financially-viable U.S.-flagged vessels will remain an ongoing challenge.

MARAD officials identified the following options as having potential to reduce the costs of operating a U.S.-flag vessel—which would in turn make U.S.-flag vessels more competitive in the international cargo market:

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<sup>11</sup>The MSP stipend provides a fixed financial incentive for vessel operators to maintain vessels under the U.S. flag, but on its own is not sufficient to support the higher costs of operating U.S.-flag vessels, according to MARAD officials and MSP operators we spoke to. The other key way that MSP vessel operators can make up the difference in operating costs between U.S.-flag and foreign-flag vessels is through the transport of government cargo under "cargo preference" requirements. According to a 2015 MARAD report, the higher freight rates that DOD and other federal agencies pay to transport government cargo on U.S.-flag vessels are critical to these vessels' financial viability.

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- MARAD is part of a U.S. Registry Working Group<sup>12</sup> looking at a range of actions to decrease the time and cost of bringing vessels under the U.S. flag, including the cost of meeting Coast Guard requirements. For example, the group is looking at a recommendation for the broader application of internationally recognized vessel standards to U.S.-flag vessels to meet Coast Guard requirements.
  - In the current strategic plan for 2017 through 2021, MARAD identified two areas of reform—mariner income-tax relief and liability insurance reform—that could reduce the crew costs of operating under a U.S. flag.
  - According to MARAD officials, some stakeholders have recommended that MARAD consider requesting the elimination of a tax on U.S.-flag vessels receiving maintenance overseas to reduce maintenance costs for U.S.-flag vessels. In general, maintenance and repairs on U.S.-flag vessels not conducted at U.S. shipyards are subject to a statutory 50 percent *ad valorem* tax on the cost of maintenance performed in a foreign country. According to 12 of the 14 MSP vessel operators we spoke with for our August report, U.S. shipyards are typically more expensive than foreign shipyards or may not be close to the vessel's location or route, so they typically choose to pay the tax and have the maintenance performed overseas. Four MSP vessel operators we spoke to stated that they send U.S.-flag vessels to U.S. shipyards for maintenance when it makes sense from a logistical and financial perspective. MARAD officials we spoke to said they are considering the effect of eliminating the tax, a step that would reduce costs for vessel operators but would potentially negatively affect the financial viability of U.S. shipyards, which the law was designed to assist. However, MARAD officials stated that they have not yet evaluated these trade-offs.

MARAD and DOD's Transportation Command (Transportation Command) officials have also identified—but not officially proposed—several options to address the decline in government cargo carried on U.S.-flag vessels, which would also make U.S.-flag vessels more competitive by providing

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<sup>12</sup>According to MARAD, this working group was created to address findings from the following study: Transportation Research Board of the National Academies of Sciences, Engineering, and Medicine, *Impact of United States Coast Guard Regulations on United States Flag Registry* (2016). The working group was created under the National Defense Transportation Association and includes participants from MARAD, the Coast Guard, the American Bureau of Shipping, the Transportation Institute, and U.S.-flag vessel operators, among others.



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more revenues. In our August 2018 report, Transportation Command officials and ship operators to whom we spoke told us that they consider access to U.S. government cargo to be a critical means of sustaining U.S.-flag vessels.

- Transportation Command and MARAD officials stated that one way to increase the amount of commercial cargo on U.S.-flag vessels would be to require that certain energy export commodities, such as oil or liquefied natural gas, be carried on U.S.-flag vessels. While this option has been considered in the past, it would require new legislation and would potentially have a negative impact on the export market for liquefied natural gas. In 2015, we analyzed the potential effects of a requirement that U.S. liquefied natural gas exports be carried on U.S.-built and -flagged vessels.<sup>13</sup> We found that such a requirement could potentially increase the number of U.S.-flag vessels by 100 over the course of many years; however, due to their higher operating costs, this would increase the cost of transporting liquefied natural gas from the United States, decrease the competitiveness of U.S. liquefied natural gas in the world market, and in turn, reduce demand for U.S. liquefied natural gas. MARAD officials stated that another option would be increasing the percentage of other cargo, such as food aid, that civilian agencies are required to transport on U.S.-flag vessels. This would also require an amendment to existing legislation and would also have trade-offs, since cargo requirements such as these can result in higher shipping costs that can negatively affect the missions of civilian agencies, in particular food aid agencies.
- Another option identified by MARAD officials to address declining government cargo volumes would be to increase the MSP stipend to replace some of the government support previously provided through cargo preference requirements, as was done for fiscal year 2017.

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## Potential Shortage of U.S.-Citizen Mariners

The second challenge identified by stakeholders related to maintaining adequate sealift for defense needs is the potential shortage of U.S.-citizen mariners available to crew the government-owned reserve fleet during a crisis. The government's reserve fleet vessels are held in reduced operating status with minimal crew in peacetime. When put into

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<sup>13</sup>GAO, *Maritime Transportation: Implications of Using U.S. Liquefied-Natural-Gas Carriers for Exports*, [GAO-16-104](#) (Washington, D.C.: Dec. 3, 2015).

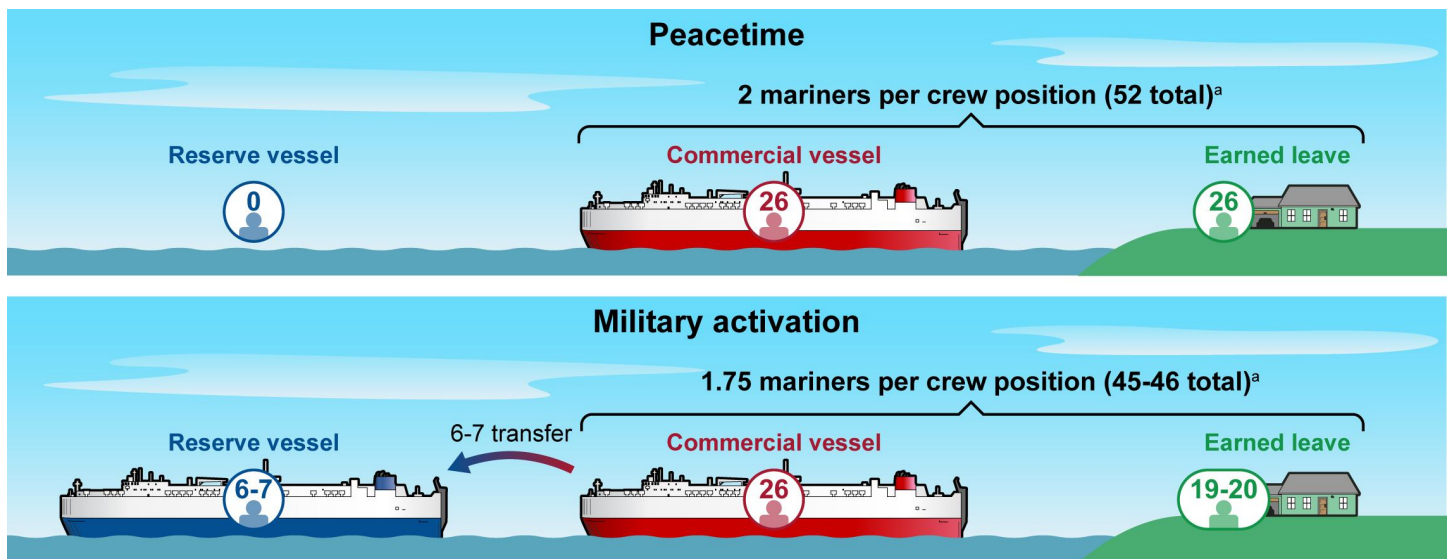
full operating status—such as for a surge related to a wartime effort—these vessels need additional crew, and DOD counts on mariners working on oceangoing U.S.-flag vessels to meet this need. MARAD and DOD have raised concerns about the sufficiency of U.S.-citizen mariners to meet this need. For example, in January 2018, in a statutorily mandated report, MARAD’s Maritime Workforce Working Group estimated a shortage of over 1,800 mariners in the case of a drawn-out military effort, although it also recommended data improvements to increase the accuracy of the count of available mariners.<sup>14</sup>

Specifically, in this report, the working group estimated approximately 11,768 qualified and available U.S.-citizen mariners as of June 2017—1,839 less than the 13,607 mariners the working group estimates would be needed for sustained operation of the reserve and commercial fleet.<sup>15</sup> The working group based its identification of 11,768 existing qualified U.S.-citizen mariners on the number of U.S.-citizen mariners actively sailing on U.S.-flag commercial and government-owned oceangoing vessels. For the vessels in full operating status, the working group accounted for 2 mariners employed for each crew position. The double crew, which according to MARAD officials is typical for a commercial U.S.-flag vessel operating in international trade, allows each mariner, over the course of a year, to work for 6 months on the vessel and take 6 months of earned leave. The working group assumed that during a military activation, commercial operations would continue at the same level as during peacetime—but that some U.S.-citizen mariners currently working on commercial vessels would be willing to reduce the amount of earned leave they took in order to work on government-owned reserve vessels. The working group analyzed this scenario by changing the ratio of crew positions to crew from 2 to 1.75. As illustrated in figure 1, under this scenario, with an average of 26 crew positions per vessel, between 6 and 7 mariners per existing commercial oceangoing U.S.-flag vessel are made available to crew the reserve fleet.

<sup>14</sup>U.S. Department of Transportation, Maritime Administration, *Maritime Workforce Working Group Report* (Washington, D.C., Sept. 29, 2017). The National Defense Authorization Act for Fiscal Year 2017, (Pub. L. No. 113-328, Div. C, § 3517, 130 Stat. 2000, 2789 (2017)), required the creation of a Maritime Workforce Working Group to examine and assess the size of the pool of citizen mariners necessary to support the U.S. flag fleet in times of national emergency.

<sup>15</sup>The working group considered mariners to be qualified if they had certain credentials, referred to as unlimited mariner credentials, and had sailed on large oceangoing U.S. flag vessels within the last 18 months.

**Figure 1: Illustration of the Potential Distribution of the Approximately 52 U.S.-citizen Mariners Hired per U.S.-Flag Commercial Vessel during Peacetime and during a Military Activation**



Source: GAO. | GAO-19-260T

<sup>a</sup>Ratios of 2 mariners per crew position in peacetime and 1.75 mariners per crew position during a military activation are taken from the Maritime Administration's (MARAD) Maritime Workforce Working Group Report, 2017. The number of approximately 52 U.S. citizen mariners employed per U.S.-flag commercial vessel is calculated based on information in the same MARAD working group report. Because 26 crew positions multiplied by 1.75 mariners per crew position equals 45.5, the number of mariners per crew position, on earned leave, or on a reserve vessel during military activation is expressed as a range.

According to the working group's methodology, given the size of the current U.S.-flag oceangoing fleet and the number of currently employed mariners on this fleet, there are enough U.S.-citizen mariners to crew the reserve fleet during an initial surge, but not for a sustained activation, during which the working group estimated that the reserve vessels themselves would need a double crew to allow for crew rotations. This need for crew rotations on the reserve vessels led the working group to estimate a shortage of 1,839 U.S.-citizen mariners. Moreover, the working group's report found that the shortage of mariners may be understated if some of the estimated available mariners are unable or unwilling to continue sailing during times of national emergency, as available mariners are not required to crew the reserve fleet.

Although the working group concluded that there is a shortage of mariners for sustained operations, its report also details data limitations that cause some uncertainty regarding the actual number of existing qualified mariners and, thus, the extent of this shortage. The working group's approach—driven, in part, by limitations of the U.S. Coast

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Guard's database that tracks mariner credentials—did not count any qualified mariners who are no longer employed on U.S.-flag oceangoing vessels or who are employed on other types of vessels but may have the required credentials. In fact, according to the working group's analysis, over 15,000 mariners listed in the U.S. Coast Guard's database have unlimited credentials but are unaccounted for, as they are neither currently employed on large, oceangoing vessels nor serving as civil-service mariners committed to government-owned vessels. The working group stated that the availability and continuing proficiency of these mariners remains unknown. MARAD officials emphasized to us, however, that mariners who have not worked on the right types of vessels for more than 18 months are likely to need additional training before they would be qualified to crew the reserve fleet during a military activation.

The working group's report contains several recommendations related to improving information on the number of available and willing mariners. These recommendations include replacing the Coast Guard database with one that would enable a more accurate account of available mariners, and establishing a periodic survey of the U.S.-citizen mariner pool to allow MARAD to determine, with reasonable certainty, how many qualified mariners would be available and willing to sail on U.S.-government reserve vessels if called upon to do so. The report concluded that until these agencies improve the tracking of licensed mariners who may be available to crew the government-owned reserve vessels when activated into full operating status, the extent to which there is a shortage of mariners for defense needs will remain unclear.<sup>16</sup> The lack of information on the extent to which there is a shortage of mariners limits the U.S. government's ability to effectively plan for such needs. In January 2018, MARAD's administrator testified that MARAD is working with the Coast Guard and the maritime industry to better track licensed mariners who may no longer be sailing but could serve in a time of crisis, and in March 2018, MARAD officials told us they are taking steps to initiate a new survey of mariners, as recommended in the working group's report.<sup>17</sup>

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<sup>16</sup>We reported on data issues related to determining the number of mariners available for sealift in GAO, *International Food Assistance: Cargo Preference Increases Food Aid Shipping Costs, and Benefits Are Unclear*, [GAO-15-666](#) (Washington, D.C.: Aug. 26, 2015).

<sup>17</sup>According to MARAD officials, the last such survey was conducted in 2003 and it found that only two-thirds of the mariner pool were willing to serve in time of crisis.

In its report, the working group also identified options to address the challenge of ensuring a sufficient number of U.S.-citizen mariners for defense needs. It identified two actions that could help increase the number of U.S.-citizen mariners—one focused specifically on mariners and the other focused more broadly on the merchant marine, which encompasses U.S.-flag vessels and U.S.-citizen mariners. However, the working group's report did not discuss specific costs or trade-offs related to either action or elaborate any further on them. The report identified the following actions:

- MARAD should develop a broad-based reserve program that would identify and support qualified mariners willing to sail in commercial and government-owned vessels during an emergency. MARAD would provide limited financial assistance in training mariners and maintaining credentials, in turn for which mariners who participate would be obligated to sail in the event of a defense need.
- MARAD and other U.S. government agencies should support a healthy merchant marine (which encompasses U.S.-flag vessels and U.S.-citizen mariners). The government should fully support programs including MSP, requiring the government to ship certain cargo on U.S. flag vessels, the Jones Act, and government chartering of privately owned vessels. If DOD determines that national needs require more mariners and vessels than can be provided through current programs, those programs should be expanded to meet such needs.

In conclusion, the U.S.-flag fleet is increasingly facing challenges that threaten its ability to meet future defense needs. In response to congressional mandates, MARAD has been working on a national maritime strategy and plans to issue one by February 2020. However, until such a strategy is in place, decision-makers will have limited information to make important policy choices that consider all the relevant tradeoffs associated with this complex issue.

Chairman Mast, Ranking Member Garamendi, and Members of the Subcommittee, this concludes my prepared statement. I would be pleased to respond to any questions.

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## GAO Contact and Staff Acknowledgments

If you or your staff have any questions about this testimony, please contact Andrew Von Ah, Director, Physical Infrastructure, at (202) 512-2834 or [vonaha@gao.gov](mailto:vonaha@gao.gov). Contact points for our Offices of

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Congressional Relations and Public Affairs may be found on the last page of this statement. GAO staff who made key contributions to this testimony are Alwynne Wilbur (Assistant Director), Stephanie Purcell, (Analyst in Charge), Bonnie Ho, Christopher Jones, and Amy Rosewarne. Other staff who made key contributions to the report cited in the testimony are identified in the source product.

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