



Testimony  
Before the Committee on Foreign  
Relations, U.S. Senate

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# INTERNATIONAL FOOD ASSISTANCE

## Cargo Preference Increased Food Aid Shipping Costs; Benefits Remain Unclear

Statement of Thomas Melito, Director, International  
Affairs and Trade

# GAO Highlights

Highlights of [GAO-18-193T](#), a testimony before the Committee on Foreign Relations, U.S. Senate

## Why GAO Did This Study

Cargo preference laws require that a percentage of U.S. government cargo, including international food aid, be transported on U.S.-flag vessels according to geographic area, although the laws do not define “geographic area.” One intention of these laws is to ensure a merchant marine—both vessels and mariners—capable of providing DOD sealift capacity in times of war or national emergency, including a full, prolonged activation of the reserve fleet. The reserve fleet is composed of those vessels owned by the U.S. government to meet logistic military needs that cannot be met by commercial vessels. Over the years, Congress has amended cargo preference laws to vary the CPFA percentage requirement.

This testimony is based on an August 2015 GAO report that examined (1) CPFA’s impact on food aid shipping cost and how U.S. agencies implement CPFA requirements; and (2) the extent to which implementation of CPFA requirements contributes to sufficient sealift capacity. It also provides an update on the implementation of actions recommended in the report.

## What GAO Recommends

In its August 2015 report, GAO suggested that Congress should consider clarifying CPFA legislation to define “geographic area” in a manner that ensures agencies can fully utilize the flexibility Congress granted to them in lowering the CPFA requirement. GAO also recommended, and MARAD agreed, to study the potential availability of all qualified mariners needed to meet a full and prolonged activation of the reserve sealift fleet. Both actions remain unimplemented.

View [GAO-18-193T](#). For more information, contact Thomas Melito at (202) 512-9601 or [melitot@gao.gov](mailto:melitot@gao.gov).

October 19, 2017

## INTERNATIONAL FOOD ASSISTANCE

### Cargo Preference Increased Food Aid Shipping Cost; Benefits Remain Unclear

## What GAO Found

In August 2015, GAO found that cargo preference for food aid (CPFA) requirements increased the overall cost of shipping food aid by an average of 23 percent, or \$107 million, over what the cost would have been had CPFA requirements not been applied from April 2011 through fiscal year 2014. Moreover, differences in the implementation of CPFA requirements by the U.S. Agency for International Development (USAID) and U.S. Department of Agriculture (USDA) contributed to higher shipping costs for USDA. Congress lowered the minimum percentage of food aid to be carried on U.S.-flag vessels from 75 to 50 percent in 2012. Following this reduction, USAID—which applies a broader interpretation of the geographic area requirement under CPFA—was able to substantially increase the proportion of food aid awarded to foreign-flag vessels, which on average have lower shipping costs, helping to reduce its average shipping cost. In contrast, USDA was able to increase the proportion of food aid awarded to foreign-flag vessels by only a relatively small amount, because a court order compels it to meet the minimum percentage of food aid carried on U.S.-flag vessels by individual country. As of October 2017, no legislation has been introduced to clarify the definition of “geographic area”, which could allow USDA to administer CPFA using a more flexible method.

U.S. Agency for International Development’s (USAID) and U.S. Department of Agriculture’s (USDA) Cost of Cargo Preference for Food Aid (CPFA) Requirements, April 2011 through Fiscal Year 2014 (Dollars in millions)

	Shipping cost of awarded bids	Estimated shipping cost without CPFA requirements applied	Estimated cost of CPFA requirements	Estimated percentage difference
USAID	\$281.5	\$236.6	\$44.9	16%
USDA	\$174.8	\$112.6	\$62.2	36%
Total	\$456.3	\$349.2	\$107.1	23%

Source: GAO analysis of USDA data. | GAO-18-193T

Note: USAID’s costs do not include shipping of bulk food aid.

GAO also reported in 2015 that CPFA’s contribution to sufficient sealift capacity was unclear. GAO found that while CPFA had ensured that a portion of U.S.-flag vessels carry some food aid cargo, the number of vessels carrying food aid and the mariners required to crew them still declined. However, the available pool of sealift capacity has always met all of the Department of Defense’s (DOD) needs, without the full activation of the reserve sealift fleet. According to DOD officials, DOD’s most serious scenario would require a full and prolonged—a period longer than 6 months—activation of the reserve sealift fleet and the use of commercial vessels. In 2015, the Maritime Administration (MARAD) estimated the number of mariners needed under the most serious scenario. MARAD officials also told GAO that crewing of the reserve sealift vessels was voluntary, and thus the number of those who would actually crew these vessels was uncertain. While MARAD has taken some steps to study mariner numbers, as of August 2017, it had not yet fully assessed the potential availability of all qualified mariners. Therefore, the actual number of U.S. mariners qualified and available to fulfill DOD’s needs under the most serious scenario remains unknown.

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Chairman Corker, Ranking Member Cardin, and Members of the Committee:

Thank you for the opportunity to discuss issues related to the requirement for cargo preference for food aid (CPFA)—that is, the requirement that a minimum share of U.S. food aid be shipped on U.S.-flag vessels.<sup>1</sup> The United States shipped about 1.5 million metric tons of food aid in fiscal year 2015, intended to benefit 36 million people in 43 countries, at a cost of around \$1.9 billion, which included commodity and freight costs. Under U.S. law, a minimum share of U.S. food aid must be shipped on U.S.-flag vessels. The required percentage for CPFA has fluctuated, from 50 percent in 1954 to 75 percent in 1985 and back to 50 percent in 2012. The U.S. Agency for International Development (USAID) and the U.S. Department of Agriculture (USDA) administer food aid programs, including funding to cover the cost of transporting food aid. The Department of Transportation's (DOT) Maritime Administration (MARAD) is responsible for monitoring USAID's and USDA's adherence to CPFA. Statutory objectives for cargo preference are applied to food aid as well as other government cargo such as Department of Defense (DOD) cargo. These objectives include the development and maintenance of a merchant marine—both vessels and mariners—capable of providing sealift in time of war or national emergency.<sup>2</sup>

My remarks today are based on our August 2015 report titled *International Food Assistance: Cargo Preference Increases Food Aid Shipping Costs, and Benefits Are Unclear*.<sup>3</sup> I will focus on three topics. First, I will discuss CPFA's impact on food aid shipping costs and U.S. agencies' implementation of CPFA requirements. Second, I will describe the extent to which the implementation of CPFA requirements contributes to sufficient sealift capacity. Finally, I will summarize the recommendations we made in our 2015 report as well as any actions taken to address them.

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<sup>1</sup>Through our discussions with knowledgeable agency officials and stakeholders, we found that there is no agency designation or agreed-upon term for cargo preference for food aid.

<sup>2</sup>Sealift is the process of transporting DOD and other federal agency equipment and supplies required during peacetime and war. We analyzed cargo preference for food aid but not for other government cargo.

<sup>3</sup>GAO, *International Food Assistance: Cargo Preference Increases Food Aid Shipping Costs, and Benefits Are Unclear*, [GAO-15-666](#) (Washington, D.C.: Aug. 26, 2015).

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For our report, we analyzed documents related to cargo preference, such as legislation and agencies' guidance, and interviewed agency officials regarding CPFA-related issues. We analyzed food aid procurement data for both USAID and USDA from April 2011 through fiscal year 2014, including some bulk food commodities and all packaged food commodities and shipment data for fiscal years 2011 through 2014.<sup>4</sup> We examined the number of total U.S.-flag and foreign-flag bids per solicitation and used regression analysis to identify the impact of the changes in the CPFA requirements. Moreover, we analyzed MARAD data on U.S.-flag vessels and the number of mariner positions aboard such vessels as well as data on the number of mariners potentially qualified to provide sealift from the U.S. Coast Guard. We found the data on U.S.-flag vessels and mariner positions sufficiently reliable for the purposes of the report. MARAD officials described the data they used and factors they considered to estimate the number of positions needed for a full, prolonged operation of the reserve surge fleet and all commercial vessels and the number of available mariners. However, we were not able to assess the accuracy of those estimates, because MARAD was unable to provide us with the details about them. We conducted recommendation follow-up by interviewing agency officials and reviewing documentation. More detailed information on our objectives, scope, and methodology for that work can be found in the issued report. 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 that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

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<sup>4</sup>Bulk commodities, such as free-flowing grain and vegetable oil, are those directly loaded and shipped in an ocean vessels' cargo hold. Packaged commodities are those shipped in woven polypropylene bags, multiwalled paper bags, plastic containers, or steel cans and drums. We obtained data for bids to ship all USDA food aid and USAID's packaged food aid. We did not include data for bids to ship USAID's bulk food aid, because these data were not available in the database developed to manage domestic and international food aid procurement. This database, known as the Web-Based Supply Chain Management (WBSCM), was implemented and began collecting data in April 2011. USAID's data for awarded bids (award data) show that bulk commodities accounted for about 50 percent of USAID total commodities in the past few years. However, we included USAID's bulk commodities in our analysis of all USAID and USDA award data.

## Cargo Preference Requirements Increased Food Aid Shipping Costs, Especially for USDA

Our 2015 analysis of agency data found that the application of CPFA requirements increased USAID's and USDA's costs for shipping food aid by about 23 percent, or \$107 million, compared with the estimated shipping costs without application of CPFA requirements, from April 2011 through fiscal year 2014 (see table 1).

**Table 1: Shipping Costs with Cargo Preference for Food Aid (CPFA) Requirements and Estimated Costs if CPFA Requirements Were Not Applied for Food Aid Shipped, from April 2011 through Fiscal Year 2014**

Dollars in millions

	Shipping cost of awarded bids	Estimated shipping cost if CPFA requirements were not applied	Estimated cost of CPFA requirements	Estimated percentage difference
U.S. Agency for International Development (USAID)	\$281.5	\$236.6	\$44.9	16%
U.S. Department of Agriculture (USDA)	\$174.8	\$112.6	\$62.2	36%
<b>Total</b>	<b>\$456.3</b>	<b>\$349.2</b>	<b>\$107.1</b>	<b>23%</b>

Source: GAO analysis of U.S. Department of Agriculture (USDA) data. | GAO-18-193T

Note: USAID's costs do not include shipping of bulk food aid. For each solicitation of USAID's packaged food aid and USDA's packaged and bulk food aid, USDA has data on the bids that were awarded the shipping contract as well as the bids that would have won if the CPFA requirements were not applied. The difference between the two is a measure of the estimated cost of meeting the CPFA requirements.

At the time of our 2015 report, USDA paid higher shipping rates than USAID partly because of differences in the two agencies' application of the CPFA requirements. Cargo preference laws specify that at least 50 percent of the gross tonnage of U.S. food aid commodities be shipped on U.S.-flag vessels by geographic areas, but the laws do not define "geographic area." Pursuant to a court order following a law suit filed against USDA, USDA must measure compliance with cargo preference laws for the Food for Progress program and Section 416(b) programs on a country-by-country basis to the extent practicable, unless MARAD revises cargo preference regulations or policy to allow a different method for defining geographic area or unless USDA determines that a change in method is necessary following good-faith negotiations on the matter with MARAD. Thus, according to USDA officials, USDA is required to meet the minimum percentage of food aid carried on U.S.-flag vessels by individual country and for each of its food assistance programs—that is, the Food for Progress program and the McGovern-Dole International Food for

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Education and Child Nutrition program (McGovern-Dole)—regardless of the price of U.S. shipping.<sup>5</sup>

In contrast, USAID is not bound by the order, as it was not a party to the litigation; instead, as of 2015, USAID interpreted the CPFA requirement in a manner that gave it substantially more flexibility. Specifically, for packaged food aid, USAID defined “geographic area” on a global basis. For bulk food aid, USAID used a modified country basis that allowed it to broaden the interpretation of “geographic area” to the regional level when it determined that the availability of U.S.-flag vessels for a particular route was limited.<sup>6</sup>

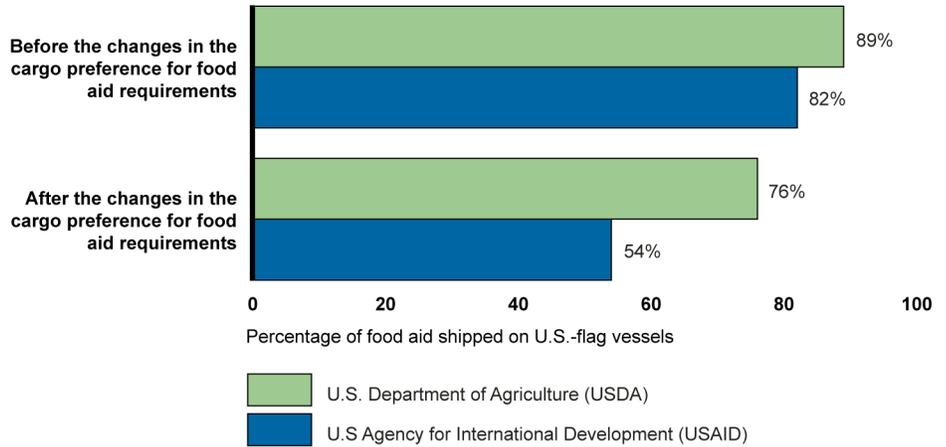
We reported in 2015 that USDA shipped a lower percentage of food aid on foreign-flag vessels than USAID in fiscal years 2009 through 2014 and that the percentage USDA shipped on U.S.-flag vessels was higher than the minimum required percentage both before and after the July 2012 change in the CPFA requirements. In addition, after the July 2012 change, USDA reduced the percentage it shipped on U.S.-flag vessels to a lesser extent than USAID (see fig. 1).

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<sup>5</sup>For example in 2014, USDA shipped 100 percent of its food aid, consisting of only one shipment each year, to the Dominican Republic using U.S.-flag vessels. When USDA had multiple shipments to a country, such as to Ethiopia in 2014, it was able to send some food on foreign-flag vessels.

<sup>6</sup>For example, USAID defines the region of West Africa, and not individual countries in West Africa, as one geographic area for bulk food aid, giving it greater flexibility and allowing it to better manage its limited resources.

**Figure 1: Percentages of U.S. Agency for International Development (USAID) and U.S. Department of Agriculture (USDA) Food Aid Shipped on U.S.-Flag Vessels, Fiscal Years 2009-2014**



Source: GAO analysis of USDA data. | GAO-18-193T

We also found that after the July 2012 changes in the CPFA requirements, the estimated average shipping rate for USAID decreased by around 9 percent, or \$21 per metric ton, after we controlled for other factors. The estimated shipping rate decreased slightly for USDA, though the decrease was not statistically significant. In addition, a higher proportion of food aid awarded to foreign-flag vessels, as well as lower shipping rates on foreign-flag vessels, likely contributed to the decrease in shipping rates for USAID after the CPFA requirement change in 2012. Foreign-flag vessels on average charge lower shipping rates than U.S.-flag vessels (see table 2).

## CPFA's Contribution to Sealift Capacity Was Uncertain, and MARAD Had Not Fully Considered Available Mariner Supply

**Table 2: Average Shipping Rates of U.S.-Flag and Foreign-Flag Vessels, April 2011 through Fiscal Year 2014**

Dollars per metric ton

Type of food aid	Average shipping rate on U.S.-flag vessels	Average shipping rate on foreign-flag vessels	Difference in average shipping rates on U.S.- and foreign-flag vessels
Packaged food aid	\$245	\$184	\$61
Bulk food aid	\$153	\$98	\$55

Source: GAO analysis of U.S. Department of Agriculture (USDA) data. | GAO-18-193T

We reported in 2015 that, despite CPFA, the number of vessels carrying food aid and the number of U.S. mariners required to crew them had declined. We found that if CPFA requirements had not been applied, 97 percent of food aid tonnage after the July 2012 change in the CPFA requirement would likely have been awarded to foreign-flag vessels. However, even with the application of CPFA, the number of U.S.-flag vessels and mariners supported by CPFA had decreased, and CPFA's overall contribution to sealift capacity was unclear.

From 2005 through 2014, the amount of U.S. food aid commodities purchased and shipped from the United States by the U.S. government—and therefore subject to the cargo preference requirements—declined by 64 percent.<sup>7</sup> During that period, the number of U.S.-flag vessels carrying food aid declined by 57 percent (from 89 to 38)<sup>8</sup> and the number of mariners crewing such vessels declined by 54 percent. MARAD estimated that there were at least 1,329 positions aboard 66 of the 89 vessels carrying food aid in fiscal year 2005 and approximately 612 positions aboard 33 of 38 vessels carrying food aid in fiscal year 2014 (see fig. 2).<sup>9</sup> Because crew members rotate over the course of a year,

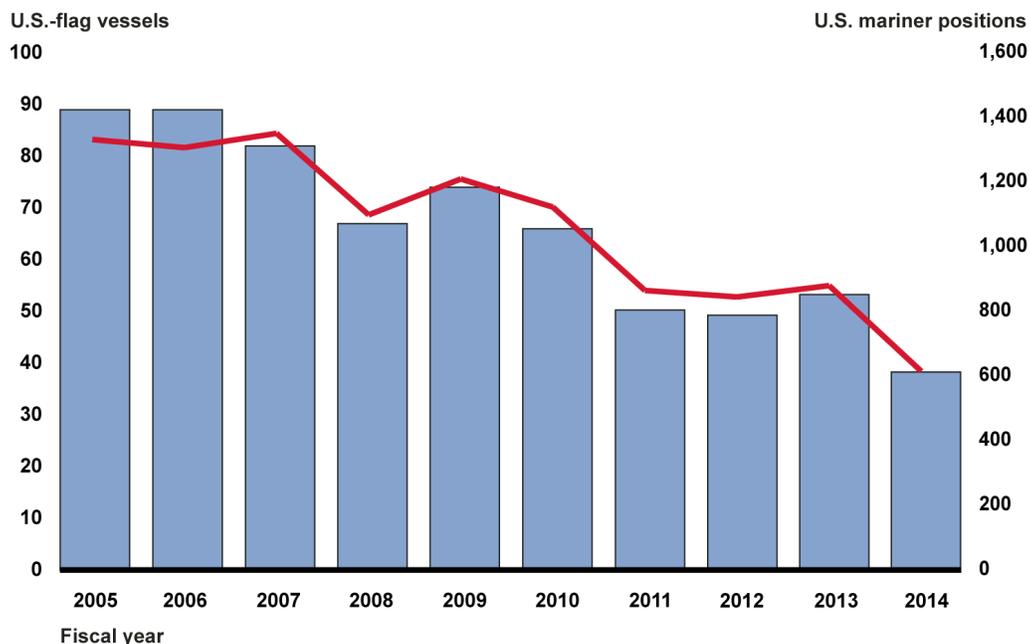
<sup>7</sup>The decline in food aid commodities provided by the U.S. government has been driven by many factors, including increases in (1) commodity and shipping costs, (2) food aid assistance in the form of cash or vouchers and local and regional procurement, and (3) the use of specialized—and therefore costly—products to meet the nutritional needs of the most vulnerable groups.

<sup>8</sup>MARAD officials noted that although all of the commercially owned vessels in the oceangoing U.S.-flag fleet are eligible to transport food aid cargo, some vessels, such as roll-on, roll-off vessels, typically do not participate in the food aid trade.

<sup>9</sup>MARAD's database does not include positions available in tug and barge combinations, many of which carried food aid in 2005.

MARAD estimated that each position generates approximately two mariner jobs per year.<sup>10</sup> Therefore, given MARAD’s estimating procedures, CPFA could have supported 1,224 mariner jobs in fiscal year 2014 (see fig. 2).

**Figure 2: Sealift Capabilities Supported by Cargo Preference for Food Aid, 2005–2014**



	U.S.-flag vessels transporting food aid	89	89	82	67	74	66	50	49	53	38
	U.S. mariner positions aboard vessels transporting food aid	1,329	1,304	1,348	1,096	1,207	1,120	862	842	877	612

Source: Maritime Administration. | GAO-18-193T

Note: Available positions only for oceangoing vessels with gross tonnage greater than 1,600 gross tons. Does not include positions available in tug and barge combinations, or vessels for which MARAD has no data.

For its sealift capability needs, DOD relies on commercial vessels, including those carrying food aid, and the reserve sealift fleet, which,

<sup>10</sup>U.S. Department of Transportation, Maritime Administration, *A Report to Congress: Impacts of Reductions in Government Impelled Cargo on the U.S. Merchant Marine* (April 21, 2015).

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according to DOD, have been sufficient for its past needs.<sup>11</sup> The reserve sealift fleet is comprised of those vessels owned by the U.S. government to meet logistic military needs that cannot be met by commercial vessels. During times of war or national emergency, DOD can make the decision to use commercial or government-owned sealift capacity to meet ocean transportation requirements. According to DOD officials, available vessel capacity—U.S.- and foreign-flag—and partial activations of the reserve sealift fleet have historically been sufficient to meet DOD’s needs. However, according to DOD, its most serious scenario requires a full and prolonged activation—for a period longer than 6 months—of the reserve sealift fleet as well as the use of commercial vessels.

According to DOD officials, DOD pays the shipping costs for its cargo to those commercial vessels that provide capacity. DOD officials also told us that a vessel does not need to be deemed militarily useful to provide sealift capability, and both U.S.- and foreign-flag vessels can be used to provide sealift. As of March 2015, there were 167 oceangoing U.S.-flag vessels that could provide sealift for DOD’s needs.<sup>12</sup> However, vessels that participate in the Voluntary Intermodal Sealift Agreement (VISA)—a partnership between the U.S. government and the maritime industry to provide DOD with assured access to commercial sealift and intermodal capacity to support the emergency deployment and sustainment of U.S. military forces—would be afforded the first opportunity to provide sealift capabilities. In March 2015, 99 oceangoing U.S.-flag vessels were enrolled in VISA, 58 of which were also part of the Maritime Security Program (MSP), which is intended to guarantee that certain kinds of militarily useful ships and their crews will be available to DOD in a military contingency. At the time, MSP vessels received a \$3.1 million annual payment to support DOD, in addition to any shipping costs DOD provided

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<sup>11</sup>DOD had not had to activate the entire reserve sealift fleet at the time of our review in 2015. We reported again in August 2017 that DOD had not had to activate the entire fleet. See GAO, *Navy Readiness: Actions Needed to Maintain Viable Surge Sealift and Combat Logistics Fleets*, [GAO-17-503](#) (Washington, D.C.: Aug. 22, 2017).

<sup>12</sup>These 167 vessels were oceangoing, self-propelled, cargo-carrying U.S.-flag vessels of 1,000 or more gross tons in foreign and domestic trades. According to MARAD’s website, as of September 2017, there are 181 vessels in the U.S. flag fleet that are oceangoing, self-propelled, cargo-carrying vessels of 1,000 or more gross tons.

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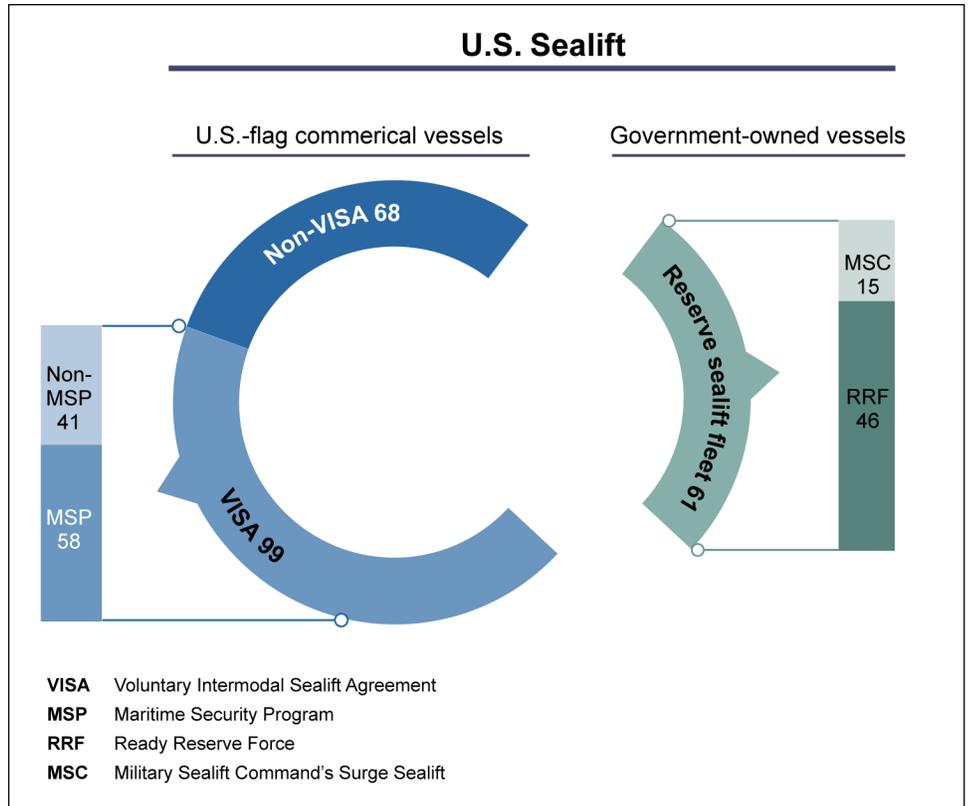
for its cargo.<sup>13</sup> In the event provided capacity does not meet DOD's needs, DOD will activate VISA to require additional vessel capacity be made available, as necessary. DOD can also activate the reserve sealift fleet when commercial vessels cannot satisfy military operational requirements, among other reasons. The reserve sealift fleet is composed of 61 vessels, 46 of which are MARAD owned and form part of the Ready Reserve Force and 15 DOD-owned vessels in the Military Sealift Command's Surge Sealift program.<sup>14</sup> Figure 3 shows the composition of oceangoing U.S.-flag commercial vessels and the reserve sealift fleet as of August 2015.

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<sup>13</sup>According to the United States Transportation Command, vessels enrolled in MSP are required to also be enrolled in VISA or the Voluntary Tanker Agreement. VISA and Voluntary Tanker Agreement are the only programs DOD would activate during times of war. However, since MSP participants are required to be enrolled in VISA or the Voluntary Tanker Agreement, it is probable that many of those activated would be vessels also in MSP. In fiscal year 2016, the MSP stipend was \$3.5 million annually per vessel, and in fiscal year 2017 it was \$4.99 million. Authorized future increases are \$5.0 million annually per vessel in fiscal years 2018 through 2020, \$5.23 million per vessel in 2021, and \$3.7 million annually per vessel in fiscal years 2022 through 2025.

<sup>14</sup>In addition, as of 2015, MARAD had two special mission vessels for missile defense purposes. We reported in August 2017 that the reserve sealift fleet has the same composition as it had in August 2015. See [GAO-17-503](#).

**Figure 3: U.S.-Flag Commercial Vessels and the Reserve Sealift Fleet as of August 2015**



Source: Maritime Administration. | GAO-18-193T

Note: We reported in August 2017 that the numbers of the reserve sealift fleet remained the same as those shown. We did not verify any changes in the numbers of VISA and non-VISA vessels from August 2015 to August 2017. MARAD reported in September 2017 that 60 vessels were participating in the MSP.

DOD has never activated VISA or the entire reserve sealift fleet to meet sealift capacity needs. While VISA participants have provided sealift capacity for DOD, the VISA program has not been activated since its inception in 1997. Partial activations of the reserve sealift fleet have been needed to support DOD. However, in the past 15 years, including during Operation Iraqi Freedom and Operation Enduring Freedom in Afghanistan, DOD has not had to activate the entire reserve sealift fleet.

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MARAD estimated the number of mariners required to fully crew both the reserve sealift fleet and commercial operations for shorter- and longer-duration surge scenarios as required by DOD.<sup>15</sup> DOD determined its most serious scenario entails a full activation of the entire reserve sealift fleet for an extended period of time. In addition, DOD would require the use of some commercial sealift for sustainment purposes. MARAD estimated in 2015 that 1,943 mariners were needed for a 6-month period and that 3,886 mariners were therefore needed to sustain the prolonged activation. MARAD further estimated that a total of 13,034 mariners were required to both support the prolonged operation of the entire reserve sealift fleet as well as the operation of commercial vessels during a scenario requiring the prolonged full activation of the reserve sealift fleet.<sup>16</sup> According to MARAD officials, MARAD expected all commercial vessels to continue operations during the period when the reserve surge fleet is activated. MARAD estimated in 2015 that 9,148 mariners would be needed to crew such vessels.<sup>17</sup>

While the U.S. Coast Guard (USCG) maintains data on mariner qualifications, as we reported in 2015, the number of mariners potentially available—both actively sailing and willing—to operate the reserve sealift fleet under a full and prolonged activation was uncertain. First, USCG data show the number of mariners potentially qualified to operate the

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<sup>15</sup>National Security Directive 28 directs DOD to determine the requirements for sealift, among other things, and DOT to determine whether adequate manpower is available to meet such requirements. According to DOD officials, DOD has determined the number of vessels—both commercial and those in the reserve sealift fleet—that would be required to meet its needs under different contingency scenarios and communicated that to MARAD.

<sup>16</sup>During the course of our review, MARAD provided the estimated number of mariners required for prolonged full activation as 12,658 based on 211 vessels. However, in commenting on a draft version of our 2015 report, DOT officials provided another estimate of 13,034 based on 207 vessels. While MARAD officials outlined some factors and high-level calculations they utilize when computing such an estimate, we could not assess the reliability or accuracy of either estimate, because MARAD did not have a final report that documented and presented precise calculations and methods that they used. In addition, MARAD did not explain why the number of mariners required had risen even though the number of vessels had been reduced. We therefore were unable to verify the details of these estimates.

<sup>17</sup>According to MARAD officials, 207 vessels utilize the same type of mariners needed to crew the surge sealift vessels, which they expected will continue to operate during the period when the reserve surge fleet is activated. MARAD officials explained that these vessels include those in the U.S.-flag fleet that have a gross tonnage of at least 1,600, in addition to passenger vessels of the appropriate tonnage and privately owned fleet support vessels on charter to the Military Sealift Command that are not counted in MARAD's list of 167 oceangoing U.S. flag vessels because of their specialized usages.

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reserve sealift fleet increased from 37,702 in 2008 to 54,953 mariners in 2014. Second, complete detailed data on actively sailing U.S. mariners, who, according to MARAD, are more likely to be available to crew the reserve sealift fleet, were not available. While USCG is limited in its ability to identify actively sailing mariners, USCG reported that as of June 2, 2015, it had received 16,637 certificates of discharge for potentially qualified mariners who had sailed in the previous 18 months. Third, the number of mariners who are willing to serve is also uncertain, in part because crewing of the reserve sealift vessels is done through a voluntary system. Fourth, Strategic Sealift Officers can be called to duty to fill officer positions aboard the reserve sealift fleet if a shortage of qualified civilian mariners exists. According to a DOD official, as of April 2015 the Strategic Sealift Officer program consisted of 1,973 officers, of whom 1,063 were not actively sailing and could potentially be called up to crew the reserve sealift fleet. However, DOD officials told us, as of August 2015, Strategic Sealift Officers had never had to be called into duty to crew the reserve sealift fleet.

While the USCG database showed over 16,000 potentially qualified and actively sailing mariners, MARAD stated in 2015 that not all of these mariners would be readily available to crew the reserve sealift fleet and maintain ocean commercial operations. MARAD estimated that 11,280 U.S. mariners were readily available as of May 2015, based on its assumptions and analysis of USCG data.<sup>18</sup> According to MARAD officials, this number was sufficient to support the initial activation of the reserve sealift fleet for 6 months but insufficient to support the prolonged operations of all the vessels after the initial crew is rotated. MARAD concluded in 2015 that at least 1,378 more mariners would need to be available to meet the needs of the prolonged operation of the entire reserve sealift fleet as well as the operation of commercial vessels.<sup>19</sup> According to MARAD officials, they expected the shortage to occur for

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<sup>18</sup>MARAD officials told us that they analyzed USCG data on the qualified mariners and applied certain assumptions to estimate the number of mariners able to support DOD needs and maintain commercial operations. According to the officials, the assumptions they used included the following: (1) excluded nonunion mariners, (2) excluded mariners sailing in the Great Lakes, and (3) excluded mariners for whom there was no record of sailing within the last 18 months. We requested that MARAD provide us with more detailed methodology to explain how it made and quantified each of these assumptions in making its final estimate. MARAD told us it could not provide any more details about its methodology.

<sup>19</sup>Given the estimated number of mariners MARAD provided in commenting on a draft version of our 2015 report, the gap could be as high as 1,754 mariners.

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senior officer positions but not for lower officer positions, such as third mate or third assistant engineer, since the merchant marine academies graduate students with these rankings each year. MARAD officials acknowledged that more mariners were qualified to support the operation of the reserve sealift fleet than were included in MARAD's analysis. However, the officials stated that sufficient numbers of mariners may not be available, in part because of their current location or employment or their lack of appropriate experience for a particular officer position. MARAD did not reassess the sufficiency of the mariner pool by using different assumptions to include a greater portion of qualified mariners, such as the more than 1,000 Strategic Sealift Officers who were not actively sailing as of April 2015, or consider mechanisms to reach out to the mariners it had excluded from its analysis in the event of a full, prolonged activation of the reserve sealift fleet.

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## Update on Matter for Congressional Consideration and GAO Recommendation

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### Matter for Congressional Consideration

To address concerns that USDA had paid higher shipping rates than USAID in part because it had applied the CPFA requirements differently than USAID, our 2015 report identified a matter for congressional consideration. Previously, we made recommendations that key agencies administering CPFA agree on a consistent interpretation of CPFA requirements through a memorandum of understanding. Although the agencies had addressed some aspects of cargo preference, they had not clarified the definition of "geographic area." USDA uses a more stringent definition of geographic area when implementing CPFA and was not able to take advantage of the shipping price decreases that USAID utilized. Our 2015 report noted that, while recognizing that cargo preference serves policy goals established by Congress with respect to the U.S. merchant marine, including maintenance of a fleet capable of serving as a naval and military auxiliary in time of war or national emergency, Congress should consider clarifying cargo preference legislation regarding the definition of "geographic area" to ensure that agencies can fully utilize the flexibility Congress granted to them when it lowered the required CPFA percentage. As of October 2017, no legislation had been

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introduced to clarify the definition of “geographic area” with regard to cargo preference laws.

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## Recommendation and Agency Response

To address our finding that MARAD had not fully assessed the sufficiency of mariners available under DOD’s most serious scenario, our 2015 report recommended that the Secretary of Transportation direct the Administrator of MARAD to study the potential availability of all qualified mariners needed to meet a full and prolonged activation of the reserve sealift fleet. We recommended that in the study, MARAD should identify potential solutions to address the mariner shortfall if a shortfall is still identified. In commenting on a draft version of our 2015 report, DOT concurred, and officials stated that MARAD had been reviewing the adequacy of existing plans to recruit mariner volunteers to crew the full reserve fleet. In addition, in December 2015, DOT officials told us that the National Maritime Strategy would include MARAD’s results on the review. In April 2017, a DOT official said that the National Maritime Strategy had not been released and was awaiting review from the current Administration.<sup>20</sup>

Furthermore, in commenting on a draft version of our 2015 report, DOT officials estimated that about 13,000 mariners were required to crew all the vessels in the fleet for sustained operations, but the officials did not provide the detailed methodology underlying that estimation. DOT officials told us in December 2016 that DOT had conducted an exercise in September 2016 to test mariner availability for an initial activation of the full fleet. DOT concluded from this exercise that there are sufficient numbers of mariners to initially crew the 61 reserve sealift vessels. However, this exercise did not fully address our recommendation, as it did not test for a full and prolonged activation of the fleet. In August 2017, we reported that our recommendation remained valid.<sup>21</sup>

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<sup>20</sup>The National Defense Authorization Act for Fiscal Year 2017 tasked MARAD to create a maritime workforce working group and required this group to identify the total number of U.S. citizen mariners in the United States who, among other things, are available to crew the U.S. flag fleet and the surge sealift fleet in times of a national emergency. The Act also requires the Secretary of Transportation to report the maritime workforce working group’s findings to Congress within 1 year of the date of enactment of the Act. As of May 2017, MARAD officials reported that they had established a working group and planned to report to Congress in December 2017.

<sup>21</sup>[GAO-17-503](#).

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Without a full understanding of both the need for, and potential available supply of, mariners under DOD's most serious scenario, the U.S. government continues to be limited in its capacity to address any potential imbalance. We concluded in August 2015 that as a result, the U.S. government cannot guarantee that the use of food aid programming funds to pay higher U.S.-flag shipping prices under CPFA is achieving the intended benefit of maintaining a merchant marine capable of providing sealift capability in time of war or national emergency.

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Chairman Corker, Ranking Member Cardin, and Members of the Committee, this concludes my prepared statement. I would be pleased to answer any questions you may have at this time.

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## GAO Contact and Staff Acknowledgments

If you or your staff members have any questions concerning this testimony, please contact me at (202) 512-9601 or [melitot@gao.gov](mailto:melitot@gao.gov). Contact points for our Offices of Congressional Relations and Public Affairs may be found on the last page of this statement. Other individuals who made key contributions include Judith Williams (Assistant Director), Ming Chen (Assistant Director), Fang He, Justine Lazaro, Victoria Lin, Marycella Mierez, Mark Dowling, Martin de Alteriis, David Dornisch, and Reid Lowe.

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