



September 2022

# MARITIME CARGO SECURITY

## CBP's Efforts to Address the Impacts of COVID-19

Accessible Version

# GAO Highlights

Highlights of [GAO-22-105803](#), a report to congressional committees

## Why GAO Did This Study

The U.S. economy is dependent on the flow of millions of tons of cargo each day throughout the global supply chain—goods moving from manufacturers to end users. Cargo shipments can present security concerns, as individuals have used cargo containers to smuggle narcotics, stowaways, and other contraband. Within the federal government, CBP, a component within the Department of Homeland Security, has responsibility for cargo security.

CBP has developed programs that focus resources on identifying U.S.-bound cargo shipments that may be at high risk of transporting terrorist weapons or other contraband and examining those shipments. In addition, CBP provides benefits to CTPAT members that employ cargo security practices that meet CBP's criteria. Such benefits include expedited processing of their U.S.-bound shipments.

The CARES Act includes a provision for GAO to report on monitoring and oversight efforts related to the COVID-19 pandemic. This report addresses how COVID-19 impacted CBP's maritime cargo security programs.

GAO analyzed data on CBP's maritime cargo security mission activities, reviewed relevant policies and procedures, and interviewed CSI and CTPAT officials. GAO also interviewed selected members of the international trade community.

The Department of Homeland Security and CBP reviewed a draft of this report and CBP provided technical comments that have been incorporated into the report, as appropriate.

View [GAO-22-105803](#). For more information, contact Heather MacLeod at (202) 512-8777, or [MacLeodH@gao.gov](mailto:MacLeodH@gao.gov)

September 2022

## MARITIME CARGO SECURITY

### CBP's Efforts to Address the Impacts of COVID-19

## What GAO Found

The COVID-19 pandemic impacted two of U.S. Customs and Border Protection's (CBP) key maritime cargo security programs—the Container Security Initiative (CSI) and the Customs Trade Partnership Against Terrorism (CTPAT) program. CSI officers largely work from foreign ports and were subject to COVID-19 lockdown and social distancing requirements that varied by location. Overall, the COVID-19 restrictions led to some changes in work practices and operational procedures. In particular, CSI officers at many CSI ports began to telework in early 2020. The length of time they teleworked varied by CSI location based on local COVID conditions and restrictions. In addition, a number of CSI ports amended operational procedures. This included coordinating examinations of high-risk, U.S.-bound cargo shipments with host country officials via email and telephone rather than in-person. In some instances, CSI relied on CBP staff in the U.S. to conduct the cargo examinations.

CTPAT supply chain security specialists are largely based in domestic field offices, but they were also subject to COVID restrictions that required them to telework during 2020 and 2021. In addition, COVID travel restrictions meant that CTPAT supply chain security specialists—could not conduct such visits in-person from March 2020 to early April 2022. Traditionally, these specialists traveled to conduct in-person validations and periodic revalidations of CTPAT members' supply chain security practices. As a result, the CTPAT program was not able to keep pace with required security validations and revalidations of members' supply chain security practices, which led to backlogs. To address the backlogged security validations, the CTPAT program trained additional staff and prioritized completing security validations dating from 2020 and 2021. To address the backlogged security revalidations, the CTPAT program developed procedures for conducting virtual security revalidations using videoconferencing technology. While these efforts were still ongoing at the time of our review, the CTPAT program had made progress in decreasing the backlogged security validations and revalidations.

Photo of a Vessel Laden with Cargo Containers



Source: [bannafarsai/stock.adobe.com](#). | [GAO-22-105803](#)

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**Abbreviations**

|       |   |
|-------|---|
| ATS   | Automated Targeting System                  |
| CBP   | U.S. Customs and Border Protection          |
| DHS   | Department of Homeland Security             |
| CSI   | Container Security Initiative               |
| CTPAT | Customs Trade Partnership Against Terrorism |
| MRA   | mutual recognition arrangement              |
| NII   | non-intrusive inspection                    |
| NTC-C | National Targeting Center-Cargo             |
| RPM   | radiation portal monitors                   |
| SFI   | Secure Freight Initiative                   |

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September 14, 2022

Congressional Committees

The U.S. economy is dependent on the expeditious flow of millions of tons of cargo each day throughout the global supply chain—the flow of goods from manufacturers to retailers or other end users. Cargo shipments can present significant security concerns, as individuals have exploited vulnerabilities in the supply chain by using cargo containers to smuggle narcotics, stowaways, and other contraband. Given these vulnerabilities, there is a risk that terrorists could use a cargo container to transport a weapon of mass destruction or other terrorist contraband into the United States. Within the federal government, U.S. Customs and Border Protection (CBP), a component within the Department of Homeland Security (DHS), has responsibility for administering cargo security and reducing the vulnerabilities associated with the global supply chain.

In performing its maritime cargo security responsibilities, CBP has developed a layered security strategy to focus its resources on targeting and examining high-risk cargo shipments that could pose a risk while allowing other cargo shipments to proceed without unduly disrupting commerce arriving in the United States. CBP's layered security strategy is based on initiatives and programs that include (1) analyzing information to identify cargo shipments that may be at high risk of transporting weapons of mass destruction or other contraband, (2) working with foreign governments to examine U.S.-bound containerized cargo shipments at foreign ports, and (3) providing benefits to companies that have implemented supply chain security practices that meet CBP's minimum security criteria.

The COVID-19 pandemic has impacted nearly all aspects of society. COVID-19 also generated unprecedented challenges for federal agencies tasked with addressing the pandemic's effects while continuing to carry out their missions and programs. The CARES Act includes a provision for us to report on its ongoing monitoring and oversight efforts related to the COVID-19 pandemic.<sup>1</sup> This report is part of our body of work in response to the CARES Act. In particular, this report addresses how CBP's

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<sup>1</sup>Pub. L. No. 116-136, § 19010(b), 134 Stat. 281, 580 (2020). All of GAO's reports related to the COVID-19 pandemic are available on GAO's website at <https://www.gao.gov/coronavirus>.

maritime cargo security programs have been impacted by the COVID-19 pandemic.

To address our objective, we focused on two of CBP's key maritime cargo security programs—the Container Security Initiative (CSI) and the Customs Trade Partnership Against Terrorism (CTPAT) program. To obtain background information on the genesis and primary objectives of the CSI and the CTPAT program, we gathered and reviewed the statutory framework for each program. We also reviewed our prior work products, as well as Congressional Budget Office reports involving the programs.<sup>2</sup> In addition, we reviewed maritime cargo security policies and procedures that were implemented prior to and during the pandemic, to determine the extent to which CSI and the CTPAT program amended any policies or procedures as a result of the COVID-19 pandemic. For the CTPAT program, we also gathered data on how COVID-19 impacted the program's ability to keep pace with required security validations (and periodic revalidations) of members' supply chain security practices. To assess the reliability of the data, we interviewed knowledgeable officials and examined the data for obvious errors or anomalies. We found the data sufficiently reliable to report on security validations, revalidations, and backlogs.

To supplement our document reviews and data analyses, we met with CBP officials from the Cargo and Conveyance Security Directorate and the National Targeting Center-Cargo (NTC-C), as well as program management officials for CSI and the CTPAT program. We also collected information from the 61 CSI ports about how COVID impacted work practices and operational procedures. Finally, we met with officials from the World Shipping Council and obtained written responses from a member of the Customs Operations Advisory Committee to obtain their perspectives on the impacts of COVID-19 on maritime cargo security issues, as well as efforts by CBP—through its CSI and CTPAT program—

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<sup>2</sup>GAO, *Supply Chain Security: DHS Could Improve Cargo Security by Periodically Assessing Risks from Foreign Ports*, [GAO-13-764](#) (Washington, D.C.: Sept. 16, 2013); *Supply Chain Security: Providing Guidance and Resolving Data Problems Could Improve Management of the Customs-Trade Partnership Against Terrorism Program*, [GAO-17-84](#) (Washington, D.C.: Feb. 8, 2017); *Supply Chain Security: CBP Needs to Enforce Compliance and Assess the Effectiveness of the Importer Security Filing and Additional Carrier Requirements*, [GAO-17-650](#) (Washington, D.C.: July 20, 2017); and CBO, *Scanning and Imaging Shipping Containers Overseas: Costs and Alternatives*, (Washington, D.C.: June 2, 2016).

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to mitigate the impacts of COVID-19 and continue its maritime cargo security operations.

We conducted this performance audit from February 2022 to September 2022 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 objective. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions.

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## Background

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### CBP's Strategy for Securing the Maritime Cargo Supply Chain

Since September 11, 2001, Congress has passed and the President has signed various laws to address concerns about the security of containerized cargo in the global supply chain. CBP's strategy for securing the maritime cargo supply chain uses a risk-based approach to focus resources on targeting and examining cargo shipments that pose a potential risk while allowing other cargo shipments to proceed without unduly disrupting commerce into the United States.<sup>3</sup> The strategy is based, in part, on obtaining advance information on U.S.-bound cargo shipments. Other aspects of CBP's maritime cargo security strategy include using technology to detect potential threats being transported within cargo containers, and partnering with foreign governments and the trade industry to examine containers prior to their arrival in the United States and implement security measures throughout the supply chain

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<sup>3</sup>CBP refers to the process of analyzing data and classifying shipments by risk level as screening. According to CBP, it screens (but does not scan) all U.S.-bound cargo shipments before they are loaded onto vessels at foreign ports. In this report, we discuss the screening process in terms of assessing the risk of a shipment. An examination refers to either (1) the scanning of a cargo container using non-intrusive inspection (NII) technology, which may use X-rays or gamma rays to create an image of the contents of the container; or (2) a physical inspection of a cargo container. If the results of an NII scan indicate that a threat may be present, CBP may choose to conduct a physical inspection. In addition to an NII exam, scanning can also refer to the use of radiation detection equipment, such as radiation portal monitors. According to CBP, 99 percent of containers are scanned through radiation portal monitors prior to leaving a domestic port.

process, respectively. Table 1 provides a description of CBP's cargo targeting tools and core maritime cargo security programs.

**Table 1: Description of U.S. Customs and Border Protection's (CBP) Cargo Targeting Tools and Maritime Cargo Security Programs**

|   | <b>Cargo Targeting Tools and Maritime Cargo Security Programs</b> | <b>Description</b>  |
|---|---|---|
| <b>Cargo Targeting Tools</b>            | Automated Targeting System (ATS)                                  | ATS is an intranet-based decision support system that compares traveler, cargo, and conveyance information against intelligence and other enforcement data by incorporating risk-based targeting scenarios and assessments. ATS assigns a risk score to U.S.-bound cargo shipments based on shipping information to help CBP identify and prevent potential terrorists and terrorist weapons from entering the United States.   |
|   | National Targeting Center-Cargo (NTC-C)                           | NTC-C analyzes advance cargo information before shipments reach the United States. NTC-C also promotes information sharing with other federal agencies and foreign governments to detect and seize threats at U.S. and foreign ports.   |
|   | Non-intrusive inspection (NII) equipment                          | CBP uses NII equipment to scan both randomly selected containers and those identified by ATS as high risk. NII uses X-rays or gamma rays to scan a container and create images of the container's contents without opening it.  |
|   | Radiation portal monitors (RPM)                                   | CBP uses RPMs to detect the presence of radioactive material that may be in a container. Certain types of RPMs can identify the type of material emitting the radiation and whether the material poses a threat or is a naturally occurring radioactive material, such as that found in certain ceramic tiles.  |
| <b>Maritime Cargo Security Programs</b> | Container Security Initiative (CSI)                               | CBP launched CSI in January 2002 in an effort to protect global shipping by targeting and examining high-risk cargo containers as early as possible in their movement through the global maritime supply chain. As part of the CSI, CBP places officers at participating foreign ports to work with host country Customs officials to target and examine high-risk container cargo for weapons of mass destruction or other terrorist contraband before they are loaded onto U.S.-bound vessels. At CSI ports, CBP officers identify the container shipments that may pose a risk for terrorism contraband and request that their foreign counterparts examine the contents of the containers with NII and RPM equipment.   |
|   | Customs Trade Partnership Against Terrorism (CTPAT)               | The CTPAT program began in November 2001. It is a voluntary program in which CBP officials work with private companies to review and validate their supply chain security practices, as well as the security practices of the companies or entities in their global supply chains, to ensure they meet a set of minimum security criteria defined by CBP. In return for ensuring their supply chain security practices meet CBP's minimum security criteria, CTPAT members are eligible to receive various benefits, such as reduced scrutiny or expedited processing of their U.S.-bound shipments. CTPAT members include importers, exporters, manufacturers, consolidators, customs brokers, and carriers covering all modes of transportation—to include air, sea (maritime), rail, and highway carriers. |
|   | Mutual Recognition Arrangements (MRA)                             | Through mutual recognition arrangements with other countries, the cargo security-related practices and programs taken by the Customs administration of one country are recognized and accepted by the Customs administration of another. According to CBP, the essential concept is that the CTPAT program and the foreign programs are compatible in both theory and practice so that one program may recognize the findings and validation results provided by another.   |

Source: GAO summary of information provided by the Department of Homeland Security. | GAO-22-105803

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Note: In addition to CSI, CTPAT, and MRA, CBP and the Department of Energy began the Secure Freight Initiative (SFI) in 2006 at certain overseas ports to scan 100 percent of U.S.-bound container cargo for nuclear and radiological materials using NII and RPM equipment. Based on various challenges, all but one SFI port has reverted to CSI operations and the one remaining SFI port is operated remotely via the NTC-C.

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## Container Security Initiative (CSI)

CSI is a bilateral government partnership program to station CBP officers at foreign seaports where they identify U.S.-bound containerized cargo shipments at risk of containing weapons of mass destruction or other terrorist contraband. CBP launched CSI in January 2002 in an effort to protect global trade by targeting and examining high-risk containers as early as possible in their movement through the global supply chain. The program was designed to address concerns (after the terrorist attacks of September 11, 2001), that terrorists could smuggle weapons of mass destruction or other contraband inside containers bound for the United States.

As part of the CSI program, CBP officers are stationed at certain foreign seaports to conduct the following activities:

**Target U.S.-bound container shipments.** CSI officers electronically review advance information collected on U.S.-bound containerized cargo shipments departing from the foreign port—a process CBP refers to as “screening.” CSI officers also review the risk scores assigned to the shipments by CBP’s automated targeting system to identify high-risk shipments with a potential nexus to terrorism—a process referred to as “targeting.” CSI officers then refer these high-risk, U.S.-bound cargo shipments to host government officials for examination.

**Request examinations of high-risk, U.S.-bound container shipments.** CBP officers work with host country government officials to mitigate high-risk, U.S.-bound cargo container shipments. Actions may include resolving discrepancies in shipment information, scanning cargo containers’ with radiation detection and imaging equipment, or conducting physical inspections of the containers’ contents.

In total, the CSI program targets U.S.-bound containerized cargo from 61 foreign ports. According to CSI officials, as of April 2022, these 61 CSI ports collectively accounted for 72 percent of the cargo shipped to the United States by volume. For the time period covered by our review—roughly March 2020 to June 2022—CSI had staff based in 27 foreign countries that, collectively, covered 50 foreign ports that ship maritime

cargo directly to the United States. In addition, during the period of our review, the National Targeting Center-Cargo remotely targeted U.S.-bound cargo shipments for an additional 11 CSI ports within seven countries—Montreal, Vancouver, and Halifax, Canada; Qasim, Pakistan; Haifa and Ashdod, Israel; Aqaba, Jordan; Melbourne, Australia; Auckland, New Zealand; and Shanghai and Shenzhen, China.

CSI officers at most CSI ports target U.S.-bound cargo shipments only from their assigned ports. However, based on information provided by CSI officials, there were seven CSI port locations that, collectively, targeted U.S.-bound cargo shipments for 14 other CSI ports as well—one in Belgium that covered one additional CSI port; one in France that covered one additional CSI port; one in Germany that covered one additional port; two in Italy that, collectively, covered five additional ports; one in Panama that covered three additional CSI ports; and one in the United Kingdom that covered three additional ports.

Targeting of cargo shipments across the 61 CSI ports utilized three separate formats. Specifically, U.S.-bound cargo shipments were targeted:

- by assigned CSI officers at 36 ports;
- remotely by CSI officers from a different CSI port at 14 CSI ports (targeting hubs); and
- remotely by officials from the National Targeting Center-Cargo for 11 CSI ports.

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## Customs Trade Partnership Against Terrorism (CTPAT) Program

The CTPAT program is a voluntary program that enables CBP officials to work in partnership with private companies to review and approve the security of their international supply chains. In November 2001, CBP announced the CTPAT program as part of its efforts to facilitate the free flow of goods while ensuring that the cargo containers do not pose a threat to homeland security. In October 2006, the SAFE Port Act established a statutory framework for the CTPAT program, codified its

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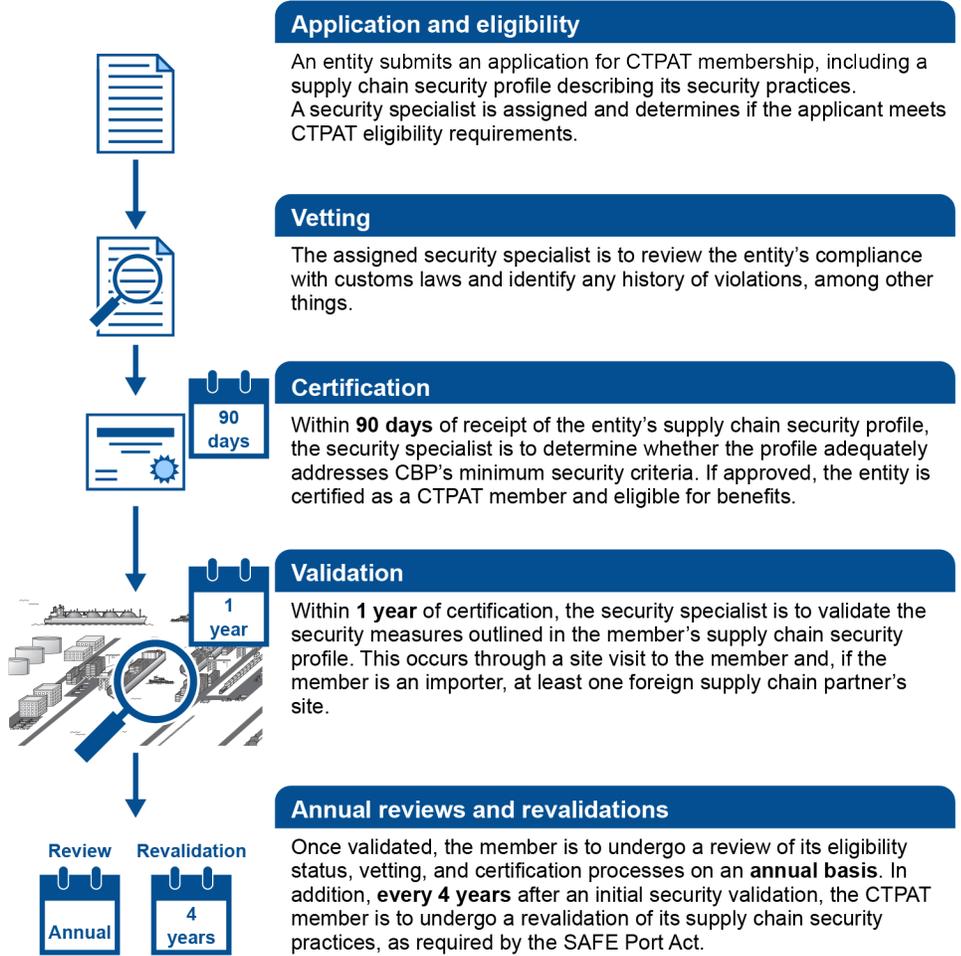
existing membership processes, and added new components—such as time frames for validating and revalidating members’ security practices.<sup>4</sup>

Figure 1 provides information on CBP’s process for screening CTPAT applicants and reviewing members’ supply chain security practices. Entities that join the CTPAT program commit to improving the security of their supply chains and agree to provide CBP with information on their specific supply chain security measures. In addition, the entities agree to allow CBP to validate, among other things, that their security practices meet or exceed CBP’s minimum security requirements. In return for their participation in the program, CTPAT members are entitled to certain benefits, such as a reduced likelihood of scrutiny of their cargo.

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<sup>4</sup>6 U.S.C. §§ 961-973.

**Figure 1: Process Used for Reviewing Customs Trade Partnership Against Terrorism (CTPAT) Applicants' and Members' Supply Chain Security Practices**



Source: GAO analysis of CBP information. | GAO-22-105803

**Text of Figure 1: Process Used for Reviewing Customs Trade Partnership Against Terrorism (CTPAT) Applicants' and Members' Supply Chain Security Practices**

- **Application and eligibility**
  - An entity submits an application for CTPAT membership, including a supply chain security profile describing its security practices. □ A security specialist is assigned and determines if the applicant meets CTPAT eligibility requirements.
- **Vetting**

- The assigned security specialist is to review the entity's compliance with customs laws and identify any history of violations, among other things.
- **Certification**
  - Within 90 days of receipt of the entity's supply chain security profile, the security specialist is to determine whether the profile adequately addresses CBP's minimum security criteria. If approved, the entity is certified as a CTPAT member and eligible for benefits.
- **Validation**
  - Within 1 year of certification, the security specialist is to validate the security measures outlined in the member's supply chain security profile. This occurs through a site visit to the member and, if the member is an importer, at least one foreign supply chain partner's site.
- **Annual Review and Revalidations**
  - Once validated, the member is to undergo a review of its eligibility status, vetting, and certification processes on an annual basis. In addition, every 4 years after an initial security validation, the CTPAT member is to undergo a revalidation of its supply chain security practices, as required by the SAFE Port Act.

Source: GAO analysis of CBP information. | GAO-22-105803

Note: As a result of COVID-19 travel restrictions, the CTPAT program revised procedures to allow for some security revalidations to be conducted virtually using videoconferencing capabilities. Details on this change are provided later in this report.

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## Mutual Recognition Arrangements (MRA)

Through MRAs with foreign government entities, the security-related practices and programs taken by the Customs or maritime security administration of one entity is recognized and accepted by the administration of another.<sup>5</sup> According to the World Customs Organization,

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<sup>5</sup>MRAs can be entered into with other countries as well as other governing bodies, such as the European Union. The essential concept of MRAs is that CTPAT and certain foreign Customs administrations have established a standard set of security requirements that allows one partnership program to recognize the validation findings of the other program. Because the CTPAT program is CBP's partnership program, this report does not include a separate assessment of the impacts of COVID-19 on MRAs. Rather, the report incorporates information on MRAs within the information presented on the impacts of COVID-19 on the CTPAT program.

MRAs allow Customs administrations to target high-risk shipments more effectively by, for example, reducing redundant examinations.<sup>6</sup> As of early September 2022, the U.S. has signed MRAs with 15 government entities.<sup>7</sup> The World Customs Organization distinguishes between mutual recognition of Customs controls and mutual recognition of authorized economic operator (AEO) programs.<sup>8</sup>

- **Mutual recognition of Customs controls (Customs-to-Customs MRAs):** This is achieved when, for example, the Customs administrations of two countries have confidence in and accept each other's procedures for targeting and examining cargo shipped in containers.
- **Mutual recognition of AEO programs (AEO MRAs):** This occurs when Customs administrations agree to recognize one another's AEO programs and security features and to provide comparable benefits to members of the respective programs. In the United States, CTPAT is the designated AEO program and businesses participating in the program are AEOs. According to CTPAT documentation, CBP has developed an AEO MRA process involving four phases: (1) a comparison of the program requirements to determine if the programs align on basic principles, (2) a pilot program of joint validation visits to determine if the programs align in basic practice, (3) the signing of an MRA, and (4) the development of mutual recognition operational procedures.

Figure 2 shows the key steps used by CBP for identifying and targeting potentially high-risk containerized cargo shipments using the resources and maritime cargo security programs described earlier.

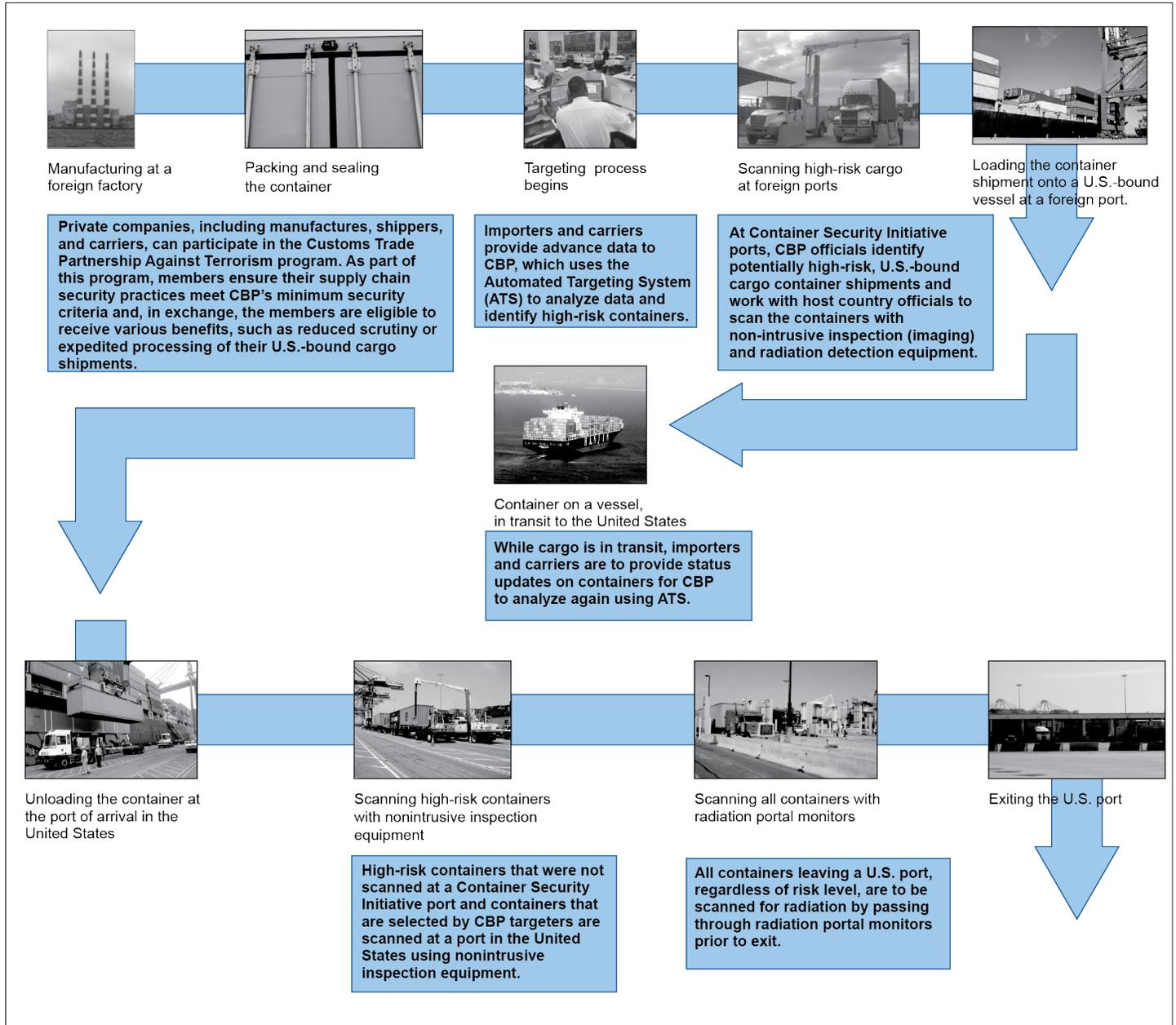
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<sup>6</sup>The World Customs Organization is an intergovernmental organization that aims to enhance the effectiveness and efficiency of Customs administrations. As of July 1, 2022, the organization had 184 member countries that, collectively, were responsible for managing more than 98 percent of world trade.

<sup>7</sup>The 15 government entities with which the U.S. has signed MRAs as of early September 2022 are: New Zealand (2007), Canada (2008), Jordan (2008), Japan (2009), South Korea (2010), European Union (2012), Taiwan (2012), Israel (2014), Mexico (2014), Singapore (2014), Dominican Republic (2015), Peru (2018), United Kingdom (2021), India (2021), and Uruguay (2022).

<sup>8</sup>AEOs include, for example, manufacturers, importers, exporters, brokers, ports, airports, terminal operators, warehouses, and distributors.

**Figure 2: Key Steps in U.S. Customs and Border Protection’s (CBP) Efforts to Target High-Risk Containerized Cargo Shipments throughout the Global Maritime Supply Chain**



Source: GAO (analysis and photos) and CBP and DHS Science and Technology Directorate (photos). | GAO-22-105803

**Text of Figure 2: Key Steps in U.S. Customs and Border Protection's (CBP) Efforts to Target High-Risk Containerized Cargo Shipments throughout the Global Maritime Supply Chain**

- Manufacturing at a foreign factory
- Packing and sealing the container
  - Private companies, including manufactures, shippers, and carriers, can participate in the Customs Trade Partnership Against Terrorism program. As part of this program, members ensure their supply chain security practices meet CBP's minimum security criteria and, in exchange, the members are eligible to receive various benefits, such as reduced scrutiny or expedited processing of their U.S.-bound cargo shipments.
- Targeting process begins
- Importers and carriers provide advance data to CBP, which uses the Automated Targeting System (ATS) to analyze data and identify high-risk containers.
- Loading the container shipment onto a U.S.-bound vessel at a foreign port.
- Container on a vessel, in transit to the United States
  - While cargo is in transit, importers and carriers are to provide status updates on containers for CBP to analyze again using ATS.
- Unloading the container at the port of arrival in the United States
- Scanning high-risk containers with nonintrusive inspection equipment
  - High-risk containers that were not scanned at a Container Security Initiative port and containers that are selected by CBP targeters are scanned at a port in the United States using nonintrusive inspection equipment.
- Scanning all containers with radiation portal monitors
  - All containers leaving a U.S. port, regardless of risk level, are to be scanned for radiation by passing through radiation portal monitors prior to exit.
- Exiting the U.S. port

Source: GAO (analysis and photos) and CBP and DHS Science and Technology Directorate (photos). | GAO-22-105803

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## COVID-19 Impacted CBP's Maritime Cargo Security Programs' Work Practices and Operational Procedures

The COVID-19 pandemic impacted CBP's key maritime cargo security programs—CSI and CTPAT—by leading the programs to implement new work practices and operational procedures. For example, because of COVID-19 lockdowns and social distancing requirements, CSI and CTPAT staff teleworked from their homes rather than from their offices for varying lengths of time during March 2020 through March 2022. In addition, at some CSI ports, CSI officers were not always able to directly observe cargo examinations and, instead, had to rely on reviewing electronic information on the results of those cargo examinations provided via email. Further, because of COVID travel restrictions, the CTPAT program developed new procedures for conducting security revalidations virtually. Collectively, the amended work practices and operational procedures allowed CBP to mitigate the impacts of COVID-19 on its maritime cargo security programs.

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### Container Security Initiative

One of the key impacts of COVID-19 on CSI operations was that some CSI locations were subject to lockdowns and social distancing requirements, which required that CSI officers in those locations change work practices and begin teleworking from their in-country residences rather than working onsite at the ports. The need for some CSI officers to telework also had broader ramifications in terms of CSI operational procedures. For example, CSI officers who teleworked may also have needed to coordinate and communicate with their host country counterparts via email or telephone rather than in-person, and review electronic information on the results of cargo examinations rather than being able to directly observe the cargo examinations.

To determine the extent to which COVID-19 impacted CSI operations across the 61 CSI ports, we gathered and analyzed information from each of the CSI ports on any changes made to either work practices (e.g., use of telework) or operational procedures (e.g., requesting cargo examinations via email rather than in-person with host country officials) as a result of COVID-19. The bullets below provide specific examples from CSI ports of the reported impacts of COVID-19 on work practices or operational procedures. The list of any reported impacts of COVID-19 on

the work practices and operational procedures for all 61 CSI ports can be found in Table 3 in Appendix I.

- 29 of the 36 CSI ports where targeting of U.S.-bound cargo shipments was done by CSI officers assigned to the port required the CSI officers to telework for at least some period of time during March 2020 to June 2022. For example:
  - **Port of Sines, Portugal:** From March to May 2020, and from January to April 2021 the port was locked down. CSI officers were not allowed at the port and were required to telework during these periods. Then, from June 2020 to January 2021, and from April to December 2021, the port experienced partial lockdowns during which time CSI officers worked in-person at the port 50 percent of the time and teleworked 50 percent of the time. Beginning in January 2022, the CSI officers returned to work in-person at the port full-time.
  - **Port of Balboa, Panama:** Travel restrictions were implemented in early 2020 and CSI officers were not allowed to travel to the port of Balboa until July 2021. As a result, CSI officers had to telework during this time period.
- 13 CSI ports shifted from in-person interactions with host country officials to using email or a messaging application to request cargo examinations for at least some period of time during March 2020 to June 2022. For example:
  - **Port of Caucedo, Dominican Republic:** The host country discontinued use of hand-delivered hard copy forms to request cargo examinations and, instead, CSI officers were required to request cargo examinations via email.
  - **Port of Dubai, United Arab Emirates:** Cargo examinations ceased at the port during October 2019 to June 18, 2021 and were coordinated with the National Targeting Center-Cargo during this time period. When cargo examinations resumed at the port beginning on June 19, 2021, CSI officers used a messaging application to request cargo examinations by Dubai Customs officials.
- At 19 CSI ports, CSI officers were not able to directly observe requested cargo examinations in person for at least some period of time during March 2020 to June 2022 and, instead, reviewed electronic information on the results of those cargo examinations. For example:

- **Port of Tokyo, Japan:** In-person observations of cargo examinations by CSI officers were sometimes suspended at the discretion of the host country. In such instances, results of the cargo examinations were provided to CSI officers via email.
- **Port of Singapore:** CSI officers were not permitted to directly observe cargo examinations from June 2020 to December 2020. During this time period, results of cargo examinations were emailed to CSI officers.

While the impacts of COVID on CSI operations generally pertained to the need to implement varied telework schedules or operational procedures to limit personal interactions, there were more significant impacts at certain CSI ports, such as the following examples.

- **Ports of Shanghai and Shenzhen, China:** CSI officers left the Port of Shanghai in April 2021, and the Port of Shenzhen in October 2021. Because of visa restrictions, CSI has not been able to replace the officers at these two ports. There have been no CSI officers at either of these ports since April 2021 and October 2021, respectively. CSI has shifted targeting responsibility for these two ports to the National Targeting Center-Cargo. As of June 2022, all U.S.-bound cargo from Shanghai and Shenzhen continued to be remotely targeted and examined. CSI officials stated that while CSI officers have not been present at these ports since 2021 to conduct examinations of high-risk cargo shipments before they are loaded onto U.S.-bound vessels, CSI has been able to mitigate the impact of these limitations. For example, CSI has relied on staff at the National Targeting Center-Cargo to target high-risk, U.S.-bound cargo shipments from Shanghai and Shenzhen. CSI has also coordinated with the respective ports of destination in the U.S. to examine any high-risk cargo shipments upon arrival, according to CSI officials.
- **Ports of Tanjung Pelepas and Klang, Malaysia:** From April 2020 to April 2022, CSI officers could not work at these two ports because of COVID restrictions. CSI officers assigned to these two ports continued to target U.S.-bound shipments from their telework locations, but all cargo examinations at the port ceased beginning in April 2020. While cargo examinations at Port Klang resumed beginning on May 17, 2022, cargo examinations had not yet resumed at the Port of Tanjung Pelepas as of June 2022. CSI officers stated that they did not have any estimates for when cargo examinations would resume at the port. The officers stated that they were able to resolve any potentially high-risk cargo shipments using a collection of electronic research tools, as well as officer knowledge and experience.

The CSI program was able to adapt to varied COVID restrictions and implement amended work practices and operational procedures to mitigate their impact. This allowed CSI officers to continue their cargo security mission responsibilities. Specifically, a number of CSI locations already had contingency plans in place for CSI officers to telework from their residences as a result of prior weather-related emergencies or civil unrest. As a result, CSI was able to implement telework schedules for CSI officers that were tailored to the varied COVID-19 restrictions in place across the CSI locations. CSI officials stated that although some officers teleworked for extended periods of time during the pandemic, the use of telework did not impact CSI's ability to carry out its maritime cargo security program responsibilities. In particular, the officials noted that the CSI program routinely uses technology to perform remote targeting of U.S.-bound maritime cargo shipments. Consequently, according to the officials, allowing CSI officers to telework from their in-country residences did not decrease the program's effectiveness or productivity.

CSI officials stated that while the amended work practices and operational procedures that CSI officers implemented allowed them to mitigate the impacts of COVID-19, they are not contemplating any changes to CSI officers' in-person work requirements moving forward. The officials noted that they value face-to-face interactions and collaboration with their host country counterparts and prefer to be able to directly observe and participate in cargo examinations, as authorized by the host countries. The CSI officials noted, though, that they will remain flexible and adapt to any circumstances that may require the use of these flexible work practices and amended operational procedures in the future. Figure 3 shows a CSI port in Panama.

Figure 3: Cargo Container Vessels at a CSI Port in Panama



Source: United States Customs and Border Protection. | GAO-22-105803

## Customs Trade Partnership Against Terrorism

There were two primary impacts of COVID-19 on CTPAT operations. First, because of COVID restrictions and social distancing requirements, CTPAT staff were directed to telework for a period of time. Specifically, CTPAT program managers directed CTPAT staff to telework beginning in March 2020. CBP authorized CTPAT staff to return to their offices beginning in January 2022. Second, because of COVID travel restrictions, CTPAT supply chain security specialists—who traditionally traveled to conduct in-person validations and revalidations of CTPAT members’

supply chain security practices—could not conduct in-person visits for 2 years—from March 2020 to early April 2022.

The CTPAT program has relied on the use of travel to conduct in-person visits to validate and periodically revalidate (every 4 years) CTPAT members’ supply chain security practices. Specifically, CTPAT supply chain security specialists travel domestically to validate members’ supply chain entities within the United States and travel internationally to validate members’ supply chain entities based outside the United States. While the CTPAT program has historically been able to keep pace with the required security validations and revalidations, COVID-19 travel restrictions that went into effect in early 2020 halted these visits, which led to backlogs. As shown in table 2, the number of backlogged security validations and revalidations had grown to 4,779 as of the end of 2020.

**Table 2: Number of Backlogged Security Validations and Revalidations for Customs Trade Partnership Against Terrorism (CTPAT) Members as of the end of Calendar Year 2020**

| Category   | Domestic Number | International Number | Total        |
|--|-----------------|----------------------|--------------|
| Certified but awaiting initial security validation | 271             | 764                  | 1,035        |
| Validated but due for a security revalidation      | 1,628           | 2,116                | 3,744        |
| <b>Total</b>                                       | <b>1,899</b>    | <b>2,880</b>         | <b>4,779</b> |

Source: GAO analysis of information provided by CTPAT program officials. | GAO-22-105803

In an effort to mitigate the impacts of COVID-19 restrictions, the CTPAT program took several steps to address the backlogged security validations and revalidations. To address the backlogged security validations, the CTPAT program: (1) made it a priority to reduce the backlog of security validations dating from 2020 and 2021 before it conducted the security validations of members’ supply chain security practices that have come due in 2022, (2) began training more CBP staff to become supply chain security specialists; and (3) began easing travel restrictions. Specifically, in early April 2022, the CTPAT program eased travel restrictions to allow supply chain security specialists to travel within a 50-mile radius of the program’s six field offices—Buffalo, NY; Houston, TX; Los Angeles, CA; Miami, FL; New York, NY; and Newark, NJ. As of July 1, 2022, the CTPAT program had made no further adjustments to its travel policies.

While these three actions were in progress during the period of our review, the CTPAT program had made some progress in reducing the backlog of initial security validations. According to information provided by CTPAT officials, as of the end of June 2022, the CTPAT program had completed seven security validations. CTPAT officials noted that, while they have not been able to complete security validations in as timely a manner as they had done prior to COVID, members who are awaiting security validations remain eligible to receive the benefits that accrued to them as certified CTPAT members.

To address the backlogged security revalidations, the CTPAT program developed and implemented new procedures for conducting security revalidations virtually. Specifically, in the summer of 2020, the CTPAT program tested the concept of conducting security revalidations virtually using video conferencing software. CTPAT officials stated that the test proved successful, so the CTPAT program developed new standard operating procedures for conducting virtual security revalidations, which it implemented in October 2020. The new procedures govern the use and application of the virtual validation process—to include low, medium, and high risk categories—in an effort to: (1) establish a risk-based approach for conducting virtual security revalidations, and (2) ensure that CTPAT staff follow a uniform process when determining whether it is appropriate to use the virtual security revalidation process based on the member’s risk level.

According to information provided by CTPAT officials, from October 2020, when the revised, virtual revalidation procedures were implemented, to March 1, 2022, the CTPAT program conducted 2,424 virtual security revalidations—1,225 that were domestic and 1,199 that were international.<sup>9</sup> The Director of the CTPAT program stated that the intent moving forward is that the virtual security revalidation process will remain a tool that can be used by CTPAT staff to revalidate low and medium risk members’ supply chain security practices. Members of international trade community that we met with viewed the new virtual security revalidation

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<sup>9</sup>CTPAT officials told us that that the program began reducing the number of backlogged security revalidations in October 2020 when it implemented new procedures for conducting security revalidations virtually. However, we are not able provide information on the specific progress the CTPAT program has made in reducing the number of backlogged security revalidations over time because the number of CTPAT members with security revalidations due is constantly evolving. For example, new security revalidations come due and some CTPAT members drop out of the program, negating the need for their security revalidations.

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process as an innovative and efficient way to revalidate CTPAT members' security procedures.

In addition to developing and implementing new procedures for conducting security revalidations virtually, the CTPAT program also used mutual recognition arrangements with other countries as a means for reducing the backlog of international security revalidations.<sup>10</sup> According to information provided by CTPAT officials, as of the end of June 2022, MRA partners had completed 266 international security revalidations.

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## Agency Comments and Our Evaluation

We provided a draft of this report to DHS and CBP for review and comment. CBP provided technical comments, which we have incorporated into the report as appropriate.

We are sending copies of this report to the appropriate congressional committees, the Secretary of Homeland Security, the Commissioner of U.S. Customs and Border Protection, and other interested parties. In addition, the report is available at no charge on the GAO website at <http://www.gao.gov>.

If you or your staffs have any questions about this report, please contact Heather MacLeod at 202-512-8777 or [macleodh@gao.gov](mailto:macleodh@gao.gov). Contact points for our Offices of Congressional Relations and Public Affairs may be found on the last page of this report. GAO staff that made key contributions to this report are listed in appendix II.



Heather MacLeod  
Acting Director,  
Homeland Security and Justice Issues

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<sup>10</sup> Mutual recognition arrangements indicate that the security requirements and verification procedures of the foreign entity are comparable to those of the CTPAT program. As a result, the CTPAT program recognizes and accepts the security validation findings of the foreign entity to be equivalent to a CPAT-initiated security revalidation.

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*List of Addressees*

The Honorable Patrick Leahy  
Chairman  
The Honorable Richard Shelby  
Vice Chairman  
Committee on Appropriations  
United States Senate  
The Honorable Ron Wyden  
Chairman  
The Honorable Mike Crapo  
Ranking Member  
Committee on Finance  
United States Senate  
The Honorable Patty Murray  
Chair  
The Honorable Richard Burr  
Ranking Member  
Committee on Health, Education, Labor, and Pensions  
United States Senate  
The Honorable Gary C. Peters  
Chairman  
The Honorable Rob Portman  
Ranking Member  
Committee on Homeland Security and Governmental Affairs  
United States Senate  
The Honorable Rosa L. DeLauro  
Chair  
The Honorable Kay Granger  
Ranking Member  
Committee on Appropriations  
House of Representatives  
The Honorable Frank Pallone, Jr.  
Chairman  
The Honorable Cathy McMorris Rodgers  
Republican Leader  
Committee on Energy and Commerce  
House of Representatives  
The Honorable Bennie G. Thompson  
Chairman  
The Honorable John Katko  
Ranking Member  
Committee on Homeland Security  
House of Representatives  
The Honorable Carolyn B. Maloney

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Letter

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Chairwoman  
The Honorable James Comer  
Ranking Member  
Committee on Oversight and Reform  
House of Representatives  
The Honorable Richard Neal  
Chairman  
The Honorable Kevin Brady  
Republican Leader  
Committee on Ways and Means  
House of Representatives

# Appendix I: Information on Container Security Initiative (CSI) Ports and Reported Impacts of COVID-19 on Work Practices or Operational Procedures

As of June 2022, the Container Security Initiative (CSI) had officers based in 27 foreign countries covering 50 foreign ports within those countries that ship maritime cargo directly to the United States. In addition, there were seven countries covering an additional 11 ports where U.S.-bound cargo shipments from those countries are targeted remotely from the National Targeting Center-Cargo. In total, the CSI program targets U.S.-bound cargo shipments from 61 foreign ports. Table 3 includes information obtained from the CSI ports on any change in work practices or operational procedures the ports implemented as a result of COVID-19.

**Table 3: Information on Container Security Initiative (CSI) Ports and any Impacts of COVID-19 on Work Practices or Operational Procedures, as of June 2022**

|  | CSI Ports                     | Changes in Work Practices and Operational Procedures as a Result of COVID-19   |
|--|-------------------------------|--|
| <b>Western Hemisphere: 8 Countries with 11 CSI Ports</b> | 1 Buenos Aires, Argentina     | <ul style="list-style-type: none"> <li>There were no changes in work practices as a result of COVID-19.</li> <li>There were no changes in operational procedures as a result of COVID-19.</li> </ul>   |
|  | 2 Santos, Brazil              | <ul style="list-style-type: none"> <li>CSI officers began to telework in March 2020. Once the COVID restrictions were lifted, CSI officers returned to work in-person at the port in April 2022.</li> <li>Cargo examinations were requested via email rather than in-person.</li> <li>CSI officers were not present to directly observe cargo examinations.</li> <li>Results of cargo examinations were sent to CSI officers via email.</li> </ul>   |
|  | 3 Cartagena, Colombia         | <ul style="list-style-type: none"> <li>CSI officers began to telework full-time beginning around March 2020. CSI officers returned to their office at the port using rotational shifts beginning in late 2021.</li> <li>Host country officials were not able to conduct all cargo examinations. When host country officials were unable to conduct cargo examinations, the CSI officers would request that cargo examinations be conducted at the destination port(s) in the U.S.</li> </ul> |
|  | 4 Caucedo, Dominican Republic | <ul style="list-style-type: none"> <li>CSI officers began to telework around March 2020 and continued until the COVID restrictions were lifted in September 2021.</li> <li>The host country discontinued the use of hand-delivered hard copy forms to request cargo examinations and, instead, CSI officers requested cargo examinations via email.</li> </ul>   |

**Appendix I: Information on Container Security Initiative (CSI) Ports and Reported Impacts of COVID-19 on Work Practices or Operational Procedures**

| <b>CSI Ports</b>          | <b>Changes in Work Practices and Operational Procedures as a Result of COVID-19</b>   |
|---------------------------|---|
| 5 Guayaquil, Ecuador      | <ul style="list-style-type: none"> <li>CSI officers began to telework as a result of COVID restrictions in March 2020, and continued to telework due to sustained COVID restrictions, as well as for security reasons as a result of regional violence.</li> <li>As of early June 2022, CSI officers were still teleworking.</li> <li>All requests for cargo examinations, as well as the results of the cargo examinations, were transmitted via email.</li> </ul>   |
| 6 Puerto Cortes, Honduras | <ul style="list-style-type: none"> <li>There were no changes in work practices as a result of COVID-19.</li> <li>CSI officers were not always able to observe the cargo examinations. In such cases, host country officials would provide the examination results to CSI officers via email.</li> </ul>   |
| 7 Kingston, Jamaica       | <ul style="list-style-type: none"> <li>From September 2020 to January 2022, CSI officers teleworked while COVID restrictions were in place.</li> <li>There was a reduction of in-person staffing and the implementation of curfews. In February 2022, restrictions were gradually lifted by the host country and by March 2022 the port returned to normal operations.</li> </ul>   |
| 8 Balboa, Panama          | <ul style="list-style-type: none"> <li>Travel restrictions were implemented in early 2020 and CSI officers were not allowed to travel to the port of Balboa until July 2021. As a result, CSI officers had to telework during this time period. CSI officers from the port were not authorized to travel to the Ports of Colon, Cristobal, or Manzanillo until September 2021.</li> <li>Through a memorandum of understanding, CSI officers would email Panamanian Customs to request cargo examinations.</li> <li>The cargo examinations requested by CSI officers were fulfilled at a slower pace due to reduced staff availability as a result of COVID restrictions, but the cargo examinations continued.</li> <li>When CSI officers were not available to observe cargo examinations, Panamanian Customs provided CSI officers with the results of the examinations via email.</li> </ul> |
| 9 Colon, Panama           | <ul style="list-style-type: none"> <li>Because targeting was done remotely from Balboa due to travel restrictions, there were no changes in work practices as a result of COVID-19.</li> <li>CSI officers reduced: (1) the amount of cargo examination requests to ease the burden on Panamanian Customs personnel; and (2) the number of times they visited the port due to travel restrictions, so they were not able to observe cargo examinations as frequently as before COVID.</li> <li>When CSI officers from Balboa were not able to travel to the port to observe the cargo examinations, Panamanian Customs provided CSI officers with the results of the cargo examinations via email.</li> </ul>  |
| 10 Cristobal, Panama      | <ul style="list-style-type: none"> <li>Because targeting was done remotely from Balboa due to travel restrictions, there were no changes in work practices as a result of COVID-19.</li> <li>CSI officers reduced: (1) the amount of cargo examination requests to ease the burden on Panamanian Customs personnel; and (2) the number of times they visited the port due to travel restrictions, so they were not able to observe cargo examinations as frequently as before COVID.</li> <li>When CSI officers from Balboa were not able to travel to the port to observe the cargo examinations, Panamanian Customs provided CSI officers with the results of the cargo examinations via email.</li> </ul>  |

**Appendix I: Information on Container Security Initiative (CSI) Ports and Reported Impacts of COVID-19 on Work Practices or Operational Procedures**

| <b>CSI Ports</b>  | <b>Changes in Work Practices and Operational Procedures as a Result of COVID-19</b>  |
|---|--|
| 11 Manzanillo, Panama                                       | <ul style="list-style-type: none"> <li>Because targeting was done remotely from Balboa due to travel restrictions, there were no changes in work practices as a result of COVID-19.</li> <li>CSI officers reduced: (1) the amount of cargo examination requests to ease the burden on Panamanian Customs personnel; and (2) the number of times they visited the port due to travel restrictions, so they were not able to observe cargo examinations as frequently as before COVID.</li> <li>When CSI officers from Balboa were not able to travel to the port to observe the cargo examinations, Panamanian Customs provided CSI officers with the results of the cargo examinations via email.</li> </ul>   |
| <b>Middle East and Africa: 3 countries with 3 CSI ports</b> | 12 Salalah, Oman <ul style="list-style-type: none"> <li>From March 22 to May 24, 2020, CSI officers teleworked as a result of COVID-19.</li> <li>CSI operational procedures did not change as a result of COVID-19 because CSI owns and operates the cargo examination equipment at the port, so CSI officers conduct the examinations (in-person) themselves and do not rely on host country officials to conduct the cargo examinations.</li> </ul>  |
|   | 13 Dubai, United Arab Emirates <ul style="list-style-type: none"> <li>From October 2019 to June 18, 2021, CSI officers teleworked.</li> <li>CSI officers continued to target U.S.-bound cargo shipments, but no cargo examinations were conducted during October 2019 through June 18, 2021.</li> <li>During October 2019 through June 18, 2021, any cargo shipment to be examined was referred to the National Targeting Center-Cargo to arrange the examination at the U.S. destination port(s).</li> <li>Once cargo examinations resumed on June 19, 2021, CSI officers used a messaging application to request cargo examinations by Dubai Customs</li> <li>CSI officers were generally able to observe the cargo examinations in-person. If a CSI officer was not able to be physically present for a cargo examination, Dubai Customs would send the results to CSI officers via email.</li> </ul> |
|   | 14 Durban, South Africa <ul style="list-style-type: none"> <li>From March 2020 to July 2021, CSI officers implemented a rotational telework policy in which one targeting officer would work in-person from the office while the other worked from home.</li> <li>During the period March 2020 to July 2021, any cargo examinations conducted involved imaging of container contents only and did not involve the use of radiation detection equipment.</li> <li>CSI officers were not able to observe the cargo examinations in person; rather results of cargo examinations were provided to CSI officers via email.</li> </ul>  |
| <b>Asia and Oceania: 9 countries with 15 CSI ports</b>      | 15 Shenzhen, China <ul style="list-style-type: none"> <li>In October 2021, CSI officers left the port and, because of visa restrictions, no replacement CSI officers had returned to the port as of June 2022.</li> <li>While there are no CSI officers at the port, the National Targeting Center-Cargo has oversight of the cargo shipments from this port and can work with relevant domestic cargo targeting units to arrange for cargo examinations at U.S. destination ports.</li> </ul>   |
|   | 16 Shanghai, China <ul style="list-style-type: none"> <li>In April 2021, CSI officers left the port and, because of visa restrictions, no replacement CSI officers had returned to the port as of June 2022.</li> <li>While there are no CSI officers at the port, the National Targeting Center-Cargo has oversight of the cargo shipments from this port and can work with relevant domestic cargo targeting units to arrange for any cargo examinations at U.S. destination ports.</li> </ul>   |
|   | 17 Hong Kong <ul style="list-style-type: none"> <li>From February 2020 to April 2022, CSI officers implemented a rotating telework policy in which some CSI officers worked from their residences, but at least one CSI officer was in the office during duty hours.</li> <li>There were no changes in operational procedures as a result of COVID-19.</li> </ul>  |

**Appendix I: Information on Container Security Initiative (CSI) Ports and Reported Impacts of COVID-19 on Work Practices or Operational Procedures**

| <b>CSI Ports</b>             | <b>Changes in Work Practices and Operational Procedures as a Result of COVID-19</b>   |
|------------------------------|---|
| 18 Kobe, Japan               | <ul style="list-style-type: none"> <li>From March 2020 to May 2022, the port implemented a rotational telework policy in which one CSI officer would work in-person from the office while the other officer would work from home.</li> <li>There were no changes in operational procedures as a result of COVID-19.</li> </ul>  |
| 19 Nagoya, Japan             | <ul style="list-style-type: none"> <li>From March 2020 to May 2022, the port implemented a rotational telework policy in which one CSI officer would work in-person from the office while the other officer would work from home.</li> <li>There were no changes in operational procedures as a result of COVID-19.</li> </ul>  |
| 20 Tokyo, Japan              | <ul style="list-style-type: none"> <li>From March 2020 to May 2022, the port implemented a rotational telework policy in which one CSI officer would work in-person from the office while the other officer would work from home.</li> <li>In-person observations of cargo examinations by CSI officers were sometimes suspended at the discretion of the host country. In such instances, results of the cargo examinations were provided to CSI officers via email.</li> </ul>  |
| 21 Yokohama, Japan           | <ul style="list-style-type: none"> <li>From March 2020 to May 2022, the port implemented a rotational telework policy in which one CSI officer would work in-person from the office while the other officer would work from home.</li> <li>There were no changes in operational procedures as a result of COVID-19.</li> </ul>  |
| 22 Busan, South Korea        | <ul style="list-style-type: none"> <li>From March 2020 to September 2021, the port implemented a rotational telework policy in which one or two CSI officers would work in-person at the office while other CSI officers would work from home.</li> <li>Beginning in October 2021, one CSI officer teleworks two to three times a week.</li> <li>CSI officers were not always present for cargo examinations. When a CSI officer was not able to observe cargo examinations, the results of the examinations would be provided to CSI officers via email.</li> </ul>  |
| 23 Port Klang, Malaysia      | <ul style="list-style-type: none"> <li>From April 2020 to April 2022, CSI officers teleworked because of restrictions implemented as a result of COVID-19.</li> <li>Targeting of U.S.-bound cargo shipments continued, but all cargo examinations were suspended and did not resume until May 17, 2022.</li> <li>CSI officers stated that they were able to resolve any potentially high-risk cargo shipments using a collection of electronic research tools; as well as officer knowledge and experience.</li> </ul>  |
| 24 Tanjung Pelepas, Malaysia | <ul style="list-style-type: none"> <li>From April 2020 to April 2022, CSI officers teleworked because of restrictions implemented as a result of COVID-19.</li> <li>Targeting of U.S.-bound cargo shipments continued, but cargo examinations were suspended and had not yet resumed as of June 2020.</li> <li>As of June 2022, the CSI program did not have an estimated date for when cargo examinations will resume at the port.</li> <li>CSI officers stated that they have been able to resolve any potentially high-risk cargo shipments using a collection of electronic research tools, as well as officer knowledge and experience.</li> </ul> |

**Appendix I: Information on Container Security Initiative (CSI) Ports and Reported Impacts of COVID-19 on Work Practices or Operational Procedures**

| <b>CSI Ports</b>                             | <b>Changes in Work Practices and Operational Procedures as a Result of COVID-19</b>  |  |
|--|--|--|
| 25 Singapore                                 | <ul style="list-style-type: none"> <li>From June 2020 to April 2022, CSI officers implemented a rotational telework policy in which a CSI officer would work in-person at the office while other CSI officers would work from home.</li> <li>Beginning in April 2022, CSI officers returned to the office.</li> <li>CSI officers were not permitted to directly observe cargo examinations from June 2020 to December 2020. During this time period, results of cargo examinations were emailed to CSI officers.</li> <li>Beginning in December 2020, CSI officers resumed direct observations of cargo examinations.</li> </ul>   |  |
| 26 Colombo, Sri Lanka                        | <ul style="list-style-type: none"> <li>There were no changes in work practices as a result of COVID-19.</li> <li>The percentage of cargo examinations requested that were actually conducted was reduced. While all requested cargo examinations were conducted prior to COVID-19, only 80 percent of the cargo examinations requested were conducted at the height of the pandemic due to the infection rate among host country officials. As of June 2022, the cargo examination rate returned to 100 percent.</li> <li>Prior to COVID, CSI officers directly observed about half of the cargo examinations in-person and during COVID there was a reduction in the percentage of cargo examinations that CSI officers were able to directly observe.</li> <li>CSI officers began to request cargo examinations via email. In addition, results of cargo examinations were also provided to CSI officers for those cargo examinations that they were not able to observe.</li> </ul> |  |
| 27 Kaohsiung, Taiwan                         | <ul style="list-style-type: none"> <li>There were no changes in work practices as a result of COVID-19.</li> <li>There were no changes in operational procedures as a result of COVID-19.</li> </ul>   |  |
| 28 Keelung, Taiwan                           | <ul style="list-style-type: none"> <li>There were no changes in work practices as a result of COVID-19.</li> <li>There were no changes in operational procedures as a result of COVID-19.</li> </ul>   |  |
| 29 Laem Chabang, Thailand                    | <ul style="list-style-type: none"> <li>There were no changes in work practices as a result of COVID-19.</li> <li>CSI officers were not always able to directly observe all cargo examinations in-person. If the officers were not able to observe a cargo examination, the host country would send the results of the examination to CSI officers via email.</li> </ul>  |  |
| <b>Europe: 9 countries with 23 CSI ports</b> | 30 Antwerp, Belgium  | <ul style="list-style-type: none"> <li>CSI officers began to telework starting in April 2020 and returned to work in-person beginning in March 2022.</li> <li>There were no changes in operational procedures as result of COVID-19.</li> </ul>  |
|  | 31 Zeebrugge, Belgium  | <ul style="list-style-type: none"> <li>Because this port is covered remotely by CSI officers in Antwerp, there were no changes in work practices as a result of COVID-19.</li> <li>There were no changes in operational procedures as result of COVID-19.</li> </ul>   |
|  | 32 Le Havre, France  | <ul style="list-style-type: none"> <li>CSI implemented evolving telework schedules for the CSI officers based on the changing COVID conditions and restrictions in place.</li> <li>From March 2020 to June 2020, the port went into full lock-down and CSI officers teleworked full-time. Beginning in June 2020, CSI officers started to return to the office on rotating schedules. As of June 2022, CSI officers each telework one day a week.</li> <li>For the period of March 2020 through October 2021, CSI officers were not able to directly observe cargo examinations and would, instead, receive the results of the cargo examinations via email to review.</li> <li>CSI officers have generally been present for cargo examinations beginning in November 2021.</li> </ul> |

**Appendix I: Information on Container Security Initiative (CSI) Ports and Reported Impacts of COVID-19 on Work Practices or Operational Procedures**

| <b>CSI Ports</b>           | <b>Changes in Work Practices and Operational Procedures as a Result of COVID-19</b>  |
|----------------------------|--|
| 33    Marseille, France    | <ul style="list-style-type: none"> <li>• Because this port is covered remotely by CSI officers in Le Havre, there were no changes in work practices as a result of COVID-19.</li> <li>• There was a reduction in the number of in-person meetings with host country officials during periodic visits to the port. Due to COVID-19 restrictions, no in-person meetings took place between CSI officers and French officials during March 2020 to May 2022.</li> </ul>   |
| 34    Bremerhaven, Germany | <ul style="list-style-type: none"> <li>• CSI implemented evolving telework schedules for the CSI officers based on the changing COVID conditions and restrictions in place, as well as to mimic the work practices of the host country counterparts.</li> <li>• From March 2020 to August 2021, CSI officers teleworked full-time. As of August 2021, CSI officers began using rotational telework schedules.</li> <li>• Work practices returned to pre-COVID routines beginning in March 2022.</li> <li>• There were no changes in operational procedures as result of COVID-19.</li> </ul>   |
| 35    Hamburg, Germany     | <ul style="list-style-type: none"> <li>• CSI implemented evolving telework schedules for the CSI officers based on the changing COVID conditions and restrictions in place.</li> <li>• From March 2020 to August 2021, CSI officers teleworked full-time and, as of August 2021, CSI officers began using rotational telework schedules.</li> <li>• Beginning in October 2021, CSI officers (1 per day) began reporting to the office 5 days per week.</li> <li>• CSI officer work practices returned to pre-COVID routines in March 2022.</li> <li>• There was a reduction of in-person contact with host country officials. Requests for cargo examinations, as well as the results of cargo examinations, were conveyed using email. Prior to the COVID restrictions, CSI officers could request cargo examinations in person and were able to observe the cargo examinations.</li> <li>• Port Operations in Hamburg, Germany returned to pre-COVID conditions effective June 1, 2022. CSI officers returned to their office and have resumed in-person contact with German Customs officials.</li> </ul> |
| 36    La Spezia, Italy     | <ul style="list-style-type: none"> <li>• Beginning in March 2020, the port went into full lockdown and CSI officers teleworked full-time. Starting in June 2020, the CSI officers began returning to the office on a rotational basis while still maintaining some telework. Some degree of telework will continue until the U.S. Embassy approves a return to work full-time.</li> <li>• In-person interactions between the CSI officers and their host country counterparts were discontinued during March 2020 to June 2020.</li> <li>• All direct observations of cargo examinations by CSI officers ceased during March 2020 – June 2020.</li> <li>• Starting in June 2020, one CSI officer was present during cargo examinations.</li> <li>• As of June 2022, requests for cargo examinations continued to be communicated using the CSI's remote targeting platform, email, or via telephone calls.</li> </ul>  |
| 37    Livorno, Italy       | <ul style="list-style-type: none"> <li>• Because this port is covered remotely by CSI officers in La Spezia, there were no changes in work practices as a result of COVID-19.</li> <li>• There was a reduction in the number of visits to the port to conduct in-person meetings with host country officials.</li> </ul>   |
| 38    Genoa, Italy         | <ul style="list-style-type: none"> <li>• Because this port is covered remotely by CSI officers in La Spezia, there were no changes in work practices as a result of COVID-19.</li> <li>• There was a reduction in the number of visits to the port to conduct in-person meetings with host country officials.</li> </ul>   |

**Appendix I: Information on Container Security Initiative (CSI) Ports and Reported Impacts of COVID-19 on Work Practices or Operational Procedures**

| <b>CSI Ports</b>              | <b>Changes in Work Practices and Operational Procedures as a Result of COVID-19</b>  |
|-------------------------------|--|
| 39 Naples, Italy              | <ul style="list-style-type: none"> <li>In March 2020, CSI officers began teleworking full-time and have maintained a rotational telework posture since. Fifty (50) percent of employees work in-person at the office and 50 percent telework from their residences.</li> <li>As of June 2022, the State Department and host country continued to urge the use of telework. Once all COVID restrictions are lifted, CSI officers plan to return to the office full-time.</li> <li>Notifications about when requested cargo examinations were to occur were provided via email or telephone whereas before COVID such notifications were done in-person.</li> </ul>  |
| 40 Gioia Tauro, Italy         | <ul style="list-style-type: none"> <li>Because this port is covered remotely by CSI officers in Naples, there were no changes in work practices as a result of COVID-19.</li> <li>There were no changes in operational procedures as a result of COVID-19.</li> </ul>  |
| 41 Salerno, Italy             | <ul style="list-style-type: none"> <li>Because this port is covered remotely by CSI officers in Naples, there were no changes in work practices as a result of COVID-19.</li> <li>There were no changes in operational procedures as a result of COVID-19.</li> </ul>  |
| 42 Cagliari, Italy            | <ul style="list-style-type: none"> <li>Because this port is covered remotely by CSI officers in Naples, there were no changes in work practices as a result of COVID-19.</li> <li>There were no changes in operational procedures as a result of COVID-19.</li> </ul>  |
| 43 Rotterdam, The Netherlands | <ul style="list-style-type: none"> <li>There were no changes in work practices as a result of COVID-19.</li> <li>There were no changes in operational procedures as a result of COVID-19.</li> </ul>   |
| 44 Sines, Portugal            | <ul style="list-style-type: none"> <li>The port experienced two lockdowns. From March to May 2020, and from January to April 2021, CSI officers were not allowed at the port and were required to telework.</li> <li>From June 2020 to January 2021, and from April to December 2021, the port experienced partial lockdowns during which time CSI officers worked in-person at the office 50 percent of the time and teleworked from their homes 50 percent of the time.</li> <li>In January 2022, CSI officers returned to work in-person at the office full-time and had to wear masks. Beginning in April 2022, the mask requirement ended. CSI officers have continued to work from the office full-time.</li> <li>CSI officers were not permitted to travel to the port during the two lockdown phases, so all communication with their host country counterparts had to occur via email or telephone.</li> <li>CSI officers were not able to be present for cargo examinations during the lockdown phases.</li> </ul> |
| 45 Algeciras, Spain           | <ul style="list-style-type: none"> <li>During March 2020 to May 2022, CSI officers teleworked, with one officer in the office and one teleworking. Since March 2022, CSI officers have been in the office full-time.</li> <li>When the CSI officers teleworked, cargo examination requests were made using email or telephone calls.</li> </ul>  |
| 46 Barcelona, Spain           | <ul style="list-style-type: none"> <li>During March 2020 to February 2022, CSI officers teleworked, with one officer in the office and one teleworking. Since February 2022, all CSI officers have been in the office full-time.</li> <li>When the CSI officers teleworked, cargo examination requests were made using email or telephone calls.</li> </ul>  |

**Appendix I: Information on Container Security Initiative (CSI) Ports and Reported Impacts of COVID-19 on Work Practices or Operational Procedures**

| <b>CSI Ports</b>   | <b>Changes in Work Practices and Operational Procedures as a Result of COVID-19</b>  |  |
|--|--|--|
| 47 Valencia, Spain   | <ul style="list-style-type: none"> <li>During March 2020 to June 2020, CSI officers teleworked full-time due to COVID restrictions. Beginning in June 2020, COVID restrictions were eased some and the CSI officers began to use rotational telework, with one officer in the office and one teleworking. Since May 2022, CSI officers have been in the office full-time.</li> <li>When the CSI officers teleworked, cargo examination requests were made using email or telephone calls.</li> </ul>   |  |
| 48 Gothenburg, Sweden  | <ul style="list-style-type: none"> <li>Because this port is covered remotely by CSI officers in other locations—previously Naples, Italy and now Bremerhaven, Germany (effective May 2022)—there were no changes in work practices as a result of COVID-19.</li> <li>There were no changes in operational procedures as a result of COVID-19. Rather, the operational changes were brought about by changes in the routing of cargo from Gothenburg to the U.S. in April 2022</li> <li>Prior to April 2022, the port did not have any direct cargo container routes to the United States and contact was maintained via email to maintain relationships. Because of this new direct cargo routing between Gothenburg and the U.S., CSI officials have held discussions with Swedish Customs officials to re-establish CSI operations in Gothenburg.</li> </ul> |  |
| 49 Felixstowe, United Kingdom  | <ul style="list-style-type: none"> <li>From March 2020 to March 2021, CSI officers teleworked full-time. Beginning in March 2021, CSI officers switched to using a rotational telework policy in which they would split time between coming into the office and teleworking.</li> <li>CSI officers returned to work in-person full-time beginning in May 2022.</li> <li>From March 2020 to May 2021, CSI officers were not authorized to observe cargo examinations and were, instead, provided the results of cargo examinations via email.</li> <li>CSI officers were authorized to resume observing cargo examinations beginning in May 2021.</li> </ul>  |  |
| 50 Southampton, United Kingdom   | <ul style="list-style-type: none"> <li>Because this port is covered remotely by CSI officers in Felixstowe, there were no changes in work practices as a result of COVID-19.</li> <li>There were no changes in operational procedures as a result of COVID-19.</li> </ul>  |  |
| 51 Tilbury, United Kingdom   | <ul style="list-style-type: none"> <li>Because this port is covered remotely by CSI officers in Felixstowe, there were no changes in work practices as a result of COVID-19.</li> <li>There were no changes in operational procedures as a result of COVID-19.</li> </ul>  |  |
| 52 London Gateway, United Kingdom  | <ul style="list-style-type: none"> <li>Because this port is covered remotely by CSI officers in Felixstowe, there were no changes in work practices as a result of COVID-19.</li> <li>There were no changes in operational procedures as a result of COVID-19.</li> </ul>  |  |
| <b>National Targeting Center-Cargo (NTC-C): 6 countries with 9 CSI ports, all 9 of which are targeted remotely</b> | 53 Montreal, Canada  | <ul style="list-style-type: none"> <li>Because targeting was done remotely from NTC-C, there were no changes in work practices or operational procedures as a result of COVID-19.</li> </ul> |
|  | 54 Vancouver, Canada   | <ul style="list-style-type: none"> <li>Because targeting was done remotely from NTC-C, there were no changes in work practices or operational procedures as a result of COVID-19.</li> </ul> |
|  | 55 Halifax, Canada   | <ul style="list-style-type: none"> <li>Because targeting was done remotely from NTC-C, there were no changes in work practices or operational procedures as a result of COVID-19.</li> </ul> |
|  | 56 Qasim, Pakistan   | <ul style="list-style-type: none"> <li>Because targeting was done remotely from NTC-C, there were no changes in work practices or operational procedures as a result of COVID-19.</li> </ul> |
|  | 57 Haifa, Israel   | <ul style="list-style-type: none"> <li>Because targeting was done remotely from NTC-C, there were no changes in work practices or operational procedures as a result of COVID-19.</li> </ul> |
|  | 58 Ashod, Israel   | <ul style="list-style-type: none"> <li>Because targeting was done remotely from NTC-C, there were no changes in work practices or operational procedures as a result of COVID-19.</li> </ul> |

**Appendix I: Information on Container Security Initiative (CSI) Ports and Reported Impacts of COVID-19 on Work Practices or Operational Procedures**

| <b>CSI Ports</b>         | <b>Changes in Work Practices and Operational Procedures as a Result of COVID-19</b>  |
|--------------------------|--|
| 59 Melbourne, Australia  | <ul style="list-style-type: none"> <li>Because targeting was done remotely from NTC-C, there were no changes in work practices or operational procedures as a result of COVID-19.</li> </ul> |
| 60 Auckland, New Zealand | <ul style="list-style-type: none"> <li>Because targeting was done remotely from NTC-C, there were no changes in work practices or operational procedures as a result of COVID-19.</li> </ul> |
| 61 Aqaba, Jordan         | <ul style="list-style-type: none"> <li>Because targeting was done remotely from NTC-C, there were no changes in work practices or operational procedures as a result of COVID-19.</li> </ul> |

Source: GAO analysis of information provided by Container Security Initiative (CSI) officials. | GAO-22-105803

Notes: Cargo “examinations” generally refer to collecting a non-intrusive inspection (NII) image of the contents of the requested containerized cargo container shipments and, in some locations, also scanning the selected cargo containers for any radiological emissions using a radiation portal monitor (RPM) or other, similar equipment.

For the purposes of this table: (1) changes in work practices refers to the use of telework versus reporting to the CSI office in-person, and (2) changes in operational procedures refers to factors such as whether CSI officers were able to directly observe and participate in requested cargo examinations versus not being allowed to observe cargo examinations and having to review documentation of the examination results after they are completed.

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## Appendix II: GAO Contact and Staff Acknowledgments

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### GAO Contact

Heather MacLeod at 202-512-8777 or [macleodh@gao.gov](mailto:macleodh@gao.gov).

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### Staff Acknowledgements

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