



March 2018

CUSTOMS AND BORDER PROTECTION

Automated Trade Data System Yields Benefits, but Interagency Management Approach Is Needed

Accessible Version

GAO Highlights

Highlights of [GAO-18-271](#), a report to congressional committees

Why GAO Did This Study

CBP began work on ACE in 1994 to update the agency's existing electronic trade processing system. In 2006, Congress broadened this effort by mandating creation of a "single portal" International Trade Data System to, among other things, efficiently regulate the flow of commerce and more effectively enforce laws and regulations relating to international trade. Performance problems halted implementation of ACE from 2010 to 2013. In 2014, the President set a deadline of December 31, 2016, for completing the system.

The Trade Facilitation and Trade Enforcement Act of 2015 included a provision for GAO to report on issues related to ACE implementation. In this report, GAO examines (1) CBP efforts to complete core ACE capabilities since 2013; (2) agencies' access to ACE and use of the system to process imports; (3) any cost savings and trade enforcement benefits from using ACE; and (4) the approach that will be used to manage ACE after core capabilities are completed. GAO reviewed information from 22 agencies as well as importers, exporters, and brokers and interviewed agency and trade community representatives.

What GAO Recommends

The Secretary of Homeland Security should ensure that the Commissioner of CBP, in collaboration with partner agencies, finalizes an interagency approach to managing ACE that includes processes for prioritizing enhancements and sharing system costs. CBP concurred with GAO's recommendation.

View [GAO-18-271](#). For more information, contact Kimberly Gianopoulos at (202) 512-8612 or kgianopoulosk.gao.gov.

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Automated Trade Data System Yields Benefits, but Interagency Management Approach Is Needed

What GAO Found

Since renewing efforts to implement the Automated Commercial Environment (ACE) in 2013, U.S. Customs and Border Protection (CBP) has deployed a number of key ACE activities, processes, and functions that it terms core capabilities. After several delays, CBP reported that it had finished implementing these capabilities—other than a capability for revenue collections—in February 2018. CBP expects to decide how to proceed with collections by the end of March 2018, according to agency officials.

Three Stages of Import Processing



Sources: GAO analysis of U.S. Customs and Border Protection (CBP) information; PhotoDisc and GAO (photos). | GAO-18-271

The 22 agencies CBP identified as requiring documentation to clear or license cargo are all authorized to access ACE, although GAO found considerable variation in their use of the system for import processing. For example, the Food and Drug Administration has integrated its systems with ACE and uses ACE data to review imports under its jurisdiction and target public health risks. In contrast, the Fish and Wildlife Service has not yet integrated ACE into its operations.

ACE users at CBP and partner agencies and in the trade community told GAO that using ACE has reduced costs by making trade processing more efficient and has strengthened enforcement of trade laws and regulations. CBP has developed metrics for itself and the trade community and estimated savings that could result from the increased efficiency of some processes in ACE. CBP also reported efforts to expand its metrics to capture more ACE benefits—for example, to estimate the value of increased efficiencies for partner agencies.

CBP has not yet established an approach for the management of ACE after February 2018. The agency plans to enhance ACE to address shortcomings ACE users have identified—such as difficulty in transmitting messages and required information—but has not established a process for prioritizing all suggested enhancements. CBP also has not identified funding for continued ACE development, including enhancements, after fiscal year 2018. CBP is leading an interagency effort to develop an ACE management approach that includes processes for prioritizing enhancements and sharing costs, but this approach has not been finalized. Federal guidance calls for establishing the organizational structure necessary to operate effectively and for examining efforts as needed to adopt coordinated approaches. Until processes for prioritizing ACE enhancements and sharing costs are finalized, agencies and the trade community will not realize the system's full potential benefits.

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Abbreviations

ACE	Automated Commercial Environment
APHIS	Animal and Plant Health Inspection Service
CBP	U.S. Customs and Border Protection
CPSC	Consumer Product Safety Commission
DHS	Department of Homeland Security
FDA	Food and Drug Administration
FWS	Fish and Wildlife Service
ITDS	International Trade Data System
NHTSA	National Highway Traffic Safety Administration
PGA	partner government agency
SAFE Port Act	Security and Accountability For Every Port Act of 2006
TFTEA	Trade Facilitation and Trade Enforcement Act of 2015

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March 14, 2018

Congressional Committees

U.S. Customs and Border Protection (CBP)—an agency of the Department of Homeland Security (DHS)—enforces the customs and trade laws of the United States.¹ According to CBP, the agency processes about \$3 trillion in trade and collects about \$44 billion in revenue each year from import duties, taxes, and fees. CBP carries out its work in coordination with a variety of other U.S. government agencies. For example, the Fish and Wildlife Service works to monitor international trade in wildlife and wildlife products and to prevent the illegal import or export of species regulated under international and U.S. wildlife laws, while the Consumer Product Safety Commission works to ensure that imported products comply with U.S. consumer product safety rules and regulations.

In 1994, CBP initiated planning and development of an information system, known as the Automated Commercial Environment (ACE), to ensure proper assessment and collection of customs duties. Subsequently, the Security and Accountability For Every Port Act of 2006 (SAFE Port Act) mandated the creation of a “single portal” International Trade Data System (ITDS). The stated purpose of ITDS included, among other things, eliminating redundant information requirements, efficiently regulating the flow of commerce, and more effectively enforcing laws and regulations relating to international trade (in this report, “trade enforcement”).² According to CBP, ACE is intended to provide this single portal. The act also stated that all agencies requiring documentation to

¹The Trade Facilitation and Trade Enforcement Act of 2015 (TFTEA), Pub. L. No. 114-125, § 802 (Feb. 24, 2016), codified the establishment of CBP. Prior to TFTEA, the Homeland Security Act of 2002 (Homeland Security Act), Pub. L. No. 107-296 (Nov. 25, 2002), transferred various functions to the Department of Homeland Security and established numerous bureaus therein including the United States Customs Service. Then in 2003, a Presidential Reorganization Plan Modification for the Department of Homeland Security renamed the Customs Service the Bureau of Customs and Border Protection, and also specified that the “Bureau will include the resources and missions relating to borders and ports of entry of the Customs Service, the Immigration and Naturalization Service, including the Border Patrol and inspections program, and the agricultural inspections function of the Agricultural Quarantine Inspection program.” See Reorganization Plan Modification for the Department of Homeland Security, H. Doc. 108-32, p. 4 (Feb. 4, 2003).

²Pub. L. No. 109-347, § 405 (Oct. 13, 2006).

clear or license imported or exported cargo must participate in the system. After a series of unsuccessful efforts to complete ACE, CBP began a renewed effort in 2013 to complete the implementation of key activities, processes, and functions in ACE that CBP defines as core capabilities.

The Trade Facilitation and Trade Enforcement Act of 2015 (TFTEA) includes a provision for GAO to review issues related to the implementation and use of ACE.³ In this report, we examine (1) the status of CBP's efforts to implement core capabilities since 2013; (2) CBP partner agencies' access to ACE and use of the system for import processing; (3) available information about any cost savings and trade enforcement benefits that have resulted from using ACE; and (4) the approach that will be used to manage ACE after core capabilities have been completed.⁴

To examine CBP's efforts since 2013 to implement core capabilities, we obtained information from CBP's Office of Information Technology and Office of Trade, which have been responsible for developing and administering ACE. We also obtained information from the Department of the Treasury, which has responsibility under the SAFE Port Act for coordinating interagency participation in ITDS. While ACE is designed to permit management of both exports and imports, we focused on the implementation of ACE capabilities to manage imports, because recent CBP efforts to complete and improve ACE functionality have focused primarily on imports.⁵

To examine other agencies' progress in accessing and using ACE data for import processing, we obtained summary information about CBP's 49 partner agencies, focusing our analysis on the 22 partner agencies that CBP identified as requiring documentation for clearing or licensing cargo for import or export. We selected 5 of these agencies for case studies: the Department of Health and Human Services' Food and Drug

³Pub. L. No. 114-125, § 106(c) (Feb. 24, 2016).

⁴In this report, "partner agencies" refers to federal agencies that are partnering with CBP in ITDS, including all agencies CBP identified as having responsibility for clearing or licensing cargo.

⁵According to CBP documents, efforts to transition export commodity filings from older information technology systems into ACE were completed in May 2016 and pilot tests of export manifest submission through ACE are currently under way.

Administration (FDA), the Department of Transportation's National Highway Traffic Safety Administration (NHTSA), the Consumer Product Safety Commission (CPSC), the Department of Agriculture's Animal and Plant Health Inspection Service (APHIS), and the Department of the Interior's Fish and Wildlife Service (FWS). We based our selection of these 5 agencies on their size and on the extent to which they require documentation for clearing and licensing cargo, among other factors.

To examine available information about actual and potential cost savings and enforcement benefits from using ACE, we obtained information on efforts by CBP, other agencies, and companies engaged in international trade to estimate such savings and benefits. We also obtained information on efforts by CBP and other agencies to assess any cost savings and other benefits that could result from CBP's future implementation of enhancements to the system. We examined metrics that CBP has developed to measure cost savings from ACE and determined that data generated from these metrics are sufficiently reliable to be included in this report. In addition, we interviewed CBP and agency officials in Washington, D.C., and at the ports of New York, N.Y., and Newark, N.J., about benefits and challenges associated with using ACE. We selected these ports because they allowed us to interview CBP officials charged with processing a large volume of diverse imported goods—both air and sea cargo—and provided an opportunity to interview field staff representing four of our five case-study agencies. We also discussed these issues with 16 trade community representatives (i.e., representatives of companies that buy and sell internationally traded products as well as customs brokers and shippers that work for and with these companies), many of whom had participated in organizations that advise CBP regarding its operations.⁶

To examine factors related to CBP's management of ACE after implementation of core capabilities is complete, we obtained information on CBP processes for reviewing, assessing, and prioritizing required and suggested changes to enhance ACE. We also obtained information from CBP about projected budgetary needs for its "post-core" management of ACE (i.e., after implementation of core capabilities is complete). In addition, we interviewed and obtained documentation from CBP regarding

⁶According to CBP, customs brokers assist importers and exporters in meeting federal requirements governing imports and exports. The brokers, who are licensed and regulated by CBP, submit information and appropriate payments to CBP on behalf of their clients and charge a fee for this service, according to CBP.

interagency dialogue on post-core management of ACE. See appendix I for more information about our objectives, scope, and methodology.

We conducted this performance audit from January 2017 to February 2018 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.

Background

CBP and Partner Agency Processing of Imported Goods

Imported goods flow into the U.S. market through a process that CBP facilitates and enforces, in collaboration with other federal agencies and with companies, including customs brokers, engaged in international trade. Imported goods enter the United States at more than 300 ports by air, land, or sea. The processing of imported goods includes three stages: pre-arrival, arrival/cargo release, and post-release.

- **Pre-arrival.** Before goods leave their country of origin, importers and shipping companies file paperwork and provide required advance electronic information for CBP to review.
- **Arrival/cargo release.** Importers or brokers file entry documents when goods reach a U.S. port of entry. At the ports, CBP and other agencies with regulatory responsibilities review documents and may examine the goods for import security and trade enforcement purposes.⁷ Some goods selected for examination may be deemed nonadmissible because of trade law or other violations. Admissible goods are released from the port and enter into U.S. commerce.
- **Post-release.** After goods are released from a port, importers or brokers file additional entry summary documents, which CBP reviews to ensure compliance with trade laws. CBP verifies importers' cargo classifications and calculation of customs duties, taxes, and fees

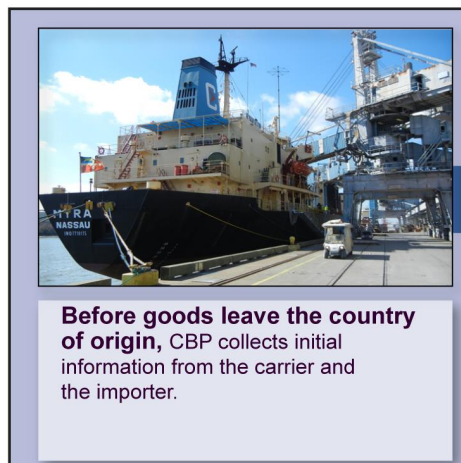
⁷FDA officials stated that entry data may also be submitted to ACE and reviewed by CBP and partner agencies during cargo transport to avoid a backlog of goods, some of which may be perishable, at the port.

owed, taking action when needed. CBP and other agencies may determine that entered goods are noncompliant, thus triggering post-release enforcement action.

Figure 1 summarizes agency roles at these three stages of import processing.

Figure 1: CBP and Other Agency Roles at Three Stages of Import Processing

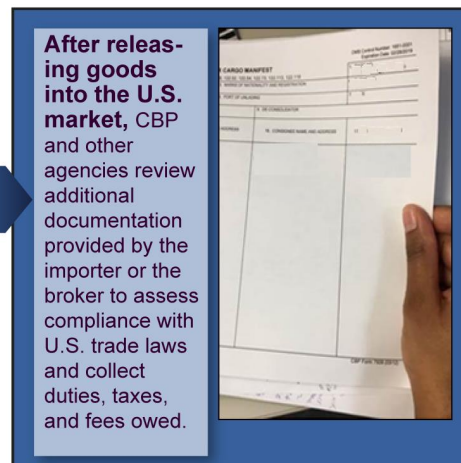
Pre-arrival



Arrival/cargo release



Post-release



Sources: GAO analysis of U.S. Customs and Border Protection (CBP) information; PhotoDisc and GAO (photos). | GAO-18-271

ACE Development and Implementation, 1994–2013

CBP initiated planning and preliminary development of ACE in 1994, following the enactment of the North American Free Trade Agreement Implementation Act.⁸ Title VI of the act required the creation of a national customs automation program that would allow electronic processing of commercial imports.⁹ According to CBP, its existing electronic system for processing imports—the Automated Commercial System (ACS), which became operational in 1984—used antiquated hardware and software and, because of limited processing capability, was increasingly difficult and expensive to operate. In addition, despite ACS’s availability, CBP continued to rely heavily on paper documents.

⁸Pub. L. 103-182 (Dec. 8, 1993).

⁹See section 631 of the act. CBP refers to Title VI as the Customs Modernization and Informed Compliance Act.

The following year, a multi-agency task force launched an effort to develop the International Trade Data System—a government-wide system for reporting data used to clear imports and exports—and efforts to develop ITDS and ACE were subsequently integrated. The 2006 SAFE Port Act mandated the creation of ITDS to provide a “single portal” trade data system, to be implemented no later than the date when ACE is fully implemented. CBP initially planned to deploy ACE incrementally from 1998 through 2005. According to CBP officials, after substantial difficulties, CBP awarded a contract to begin implementing ACE in 2001 and began deploying ACE capabilities in 2003.¹⁰ However, continued slow progress led DHS to halt all new ACE development in 2010. A CBP acquisition decision memorandum issued at that time stated that the scope and complexity of ACE projects had been consistently underestimated during the period leading up to this decision.

DHS authorized CBP to renew work on ACE in 2013, after CBP had completed a revision of ACE’s schedule, cost, and performance goals.¹¹ This “rebaselining” of ACE included adopting the agile approach to system development, which involves segmenting development and deployment into small consecutive stages, with frequent opportunities to test new capabilities and confirm that they meet requirements. CBP’s new plan called for completing core ACE capabilities to allow CBP and partner agencies to employ the system in all phases of import and export processing by November 2016, 11 years later than initially planned. A February 2014 Executive Order, as well as provisions in TFTEA,

¹⁰For additional information on difficulties related to ACE during the 1990s, see GAO, *Customs Service Modernization: Serious Management and Technical Weaknesses Must Be Corrected*, [GAO/AIMD-99-41](#) (Washington, D.C.: Feb. 26, 1999); and *Customs Service Modernization: Strategic Information Management Must be Improved for National Automation Program to Succeed*, [GAO/AIMD-96-57](#) (Washington, D.C.: May 9, 1996).

¹¹In a 2015 review of DHS acquisitions, including ACE, we reported that from January 2006 to August 2013, ACE’s “full operational capability” date slipped by more than 5 years and its life-cycle cost estimate increased by \$1.1 billion. See GAO, *Homeland Security Acquisitions: Major Program Assessments Reveal Actions Needed to Improve Accountability*, [GAO-15-171SP](#) (Apr. 22, 2015). DHS policy establishes “full operational capacity” as the point at which a program has deployed all functions to the designated users.

subsequently reinforced this commitment to complete the system before the end of 2016.¹²

In rebaselining ACE, CBP consulted with partner agencies and trade community representatives to identify the core trade processing capabilities needed for the system to achieve full operational capacity, according to CBP officials. CBP officials stated that these capabilities are laid out in an internal 2013 CBP document describing, in general terms, key activities, processes, and functions that must be performed to automate import and export processing and improve targeting and security.¹³ We use “core ACE capabilities” to refer to activities, processes, and functions that CBP has defined as core.¹⁴

CBP Has Implemented Core ACE Capabilities but Delayed Completion Several Times

After revising its schedule, cost, and performance goals for ACE in 2013, CBP developed and deployed most of the capabilities that it defined as core ACE. On February 27, 2018, CBP announced that it had deployed the last of the major scheduled core trade processing capabilities.

¹²Exec. Order No. 13,659, Streamlining the Export/Import Process for America's Businesses, 79 Fed. Reg. 10657 (Feb. 25, 2014), required agencies participating in ITDS and supporting systems, such as ACE, to have in place by December 31, 2016, the capabilities and other requirements to utilize ACE as the primary means of receiving the standard set of data and other relevant documentation required from companies for the release of imported cargo and clearance of cargo for export. TFTEA, enacted in February 2016, called on CBP to report to Congress no later than December 31, 2016, regarding incorporation of all core trade processing capabilities into ACE no later than September 30, 2016, among other things. The act also called on DHS, ITDS partner agency heads, and the interagency steering committee involved to ensure, among other things, that ITDS partner agencies (a) inform CBP of the data elements required by the agency to authorize release of cargo, for incorporation into ACE, by June 2016 and (b) utilize ITDS as the primary means of receiving data and documentation required for release of imported cargo and clearance of cargo for export by no later than December 31, 2016 (exclusive of applications for permits, licenses, or certifications for release of imports or clearance of exports).

¹³ACE Business Office, Office of International Trade, U.S. Customs and Border Protection, *Automated Commercial Environment: Operational Requirements Document*, ver. 4.1 (June 7, 2013).

¹⁴According to partner agency officials, CBP and some ACE users have disagreed about whether certain capabilities that CBP has not deployed in ACE should be considered core capabilities.

However, CBP delayed completion of these capabilities several times and has deferred deployment of collections—a capability for collecting import duties, taxes, and fees—while it considers alternative approaches to make this capability operational.

Using the agile approach, CBP began deploying new ACE capabilities in November 2013, introducing elements iteratively every few months. For example, the November 2013 deployment included functions related to the pre-arrival and arrival/cargo release phases of import processing, initial steps to support two agencies in pilot testing ACE participation, and a number of efforts to resolve technical problems. By mid-2016, CBP had deployed all core pre-arrival and arrival/cargo release capabilities, but several post-release capabilities remained to be deployed. In June 2016, CBP officials reported that the program would not complete several key events by November 2016 as planned and declared a cost and schedule breach; in November 2016, CBP rebaselined ACE again.¹⁵ CBP subsequently reported that it expected to finish deploying post-release core ACE capabilities by January 2017, but the agency was unable to complete this deployment as planned. In April 2017, CBP officials reported that the program was again in breach, and CBP subsequently moved the target date for completing deployment of remaining core capabilities to July 2017.

In June 2017, CBP announced that final core capabilities would be deployed in three phases—in September 2017, December 2017, and

Reconciliation, Liquidation, and Drawback

During **reconciliation**, preliminary data on import transactions provided to CBP at the time

¹⁵CBP officials stated that ACE was declared to be in breach because of the need to give the trade community and partner agencies more time to prepare for planned changes in the system. According to DHS policy, if a program fails to meet any approved schedule, cost, or performance threshold approved in the agency's Acquisition Program Baseline, it is considered to be in breach and the program must be rebaselined. Programs in breach are required to notify their acquisition decision authority and develop a remediation plan that outlines a time frame for the program to return to its Acquisition Program Baseline parameters; rebaseline—that is, establish new schedule, cost, or performance goals; or have a DHS-led program review that results in recommendations for a revised baseline. As of December 2017, the program remained in breach status.

of entry (such as the dollar value of imported goods) may be updated.

During **liquidation**, import transactions are finalized and duty, taxes, and fees due to CBP are determined.

During **drawback**, exporters may be able to claim and recover certain duties, taxes, or fees upon the exportation or destruction of imported merchandise under CBP supervision.

Source: U.S. Customs and Border Protection (CBP). | GAO-18-271

February 2018.¹⁶ The February 2018 deployment completed most core capabilities for post-release, including reconciliation, liquidation, and drawback—functions related to the final determination and payment of duties to CBP (see sidebar).¹⁷

CBP initially intended to implement collections in ACE along with other post-release core capabilities. However, CBP officials told us that after a series of unsuccessful attempts to move collections from ACS to ACE, the agency decided in July 2017 to decouple collections from the other remaining post-release capabilities. Agency officials explained that this would allow deployment of other post-release capabilities by the end of February 2018. CBP officials observed that technical challenges involved in moving the current collections function—which is needed to complete post-release functions such as liquidation—from ACS into ACE primarily accounted for CBP’s inability to finish deploying core ACE capabilities in 2017.¹⁸

CBP officials stated that the agency will continue to link the newly deployed post-release capabilities to collections in ACS while deciding how to proceed. According to CBP officials, the agency expects to select one of three options for collections by the end of March 2018: (1) add a collections capability to ACE, (2) retain collections in ACS, or (3) develop a separate collections system. CBP officials stated that the agency would revise its estimate of the overall cost of completing and maintaining ACE through the system’s expected life cycle after reaching this decision.¹⁹

¹⁶The December 2017 deployment included the addition of certain capabilities for the arrival/cargo release stage of import processing: moving the “e214 Form” used in admission of goods to U.S. foreign trade zones from ACS to ACE and allowing the creation of manufacturer identification numbers in ACE.

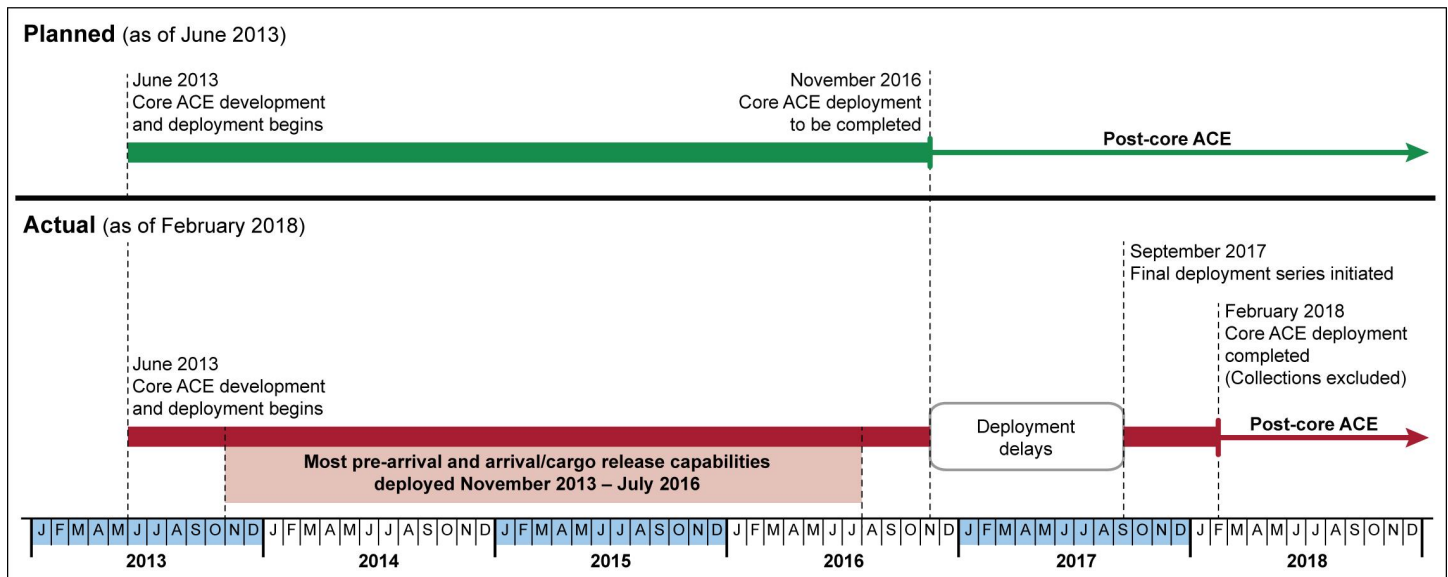
¹⁷According to CBP, the February 2018 deployment included a newly mandated form of drawback processing required by TFTEA.

¹⁸CBP documents and officials indicated that lack of understanding of collections processes and functionality in ACS, as well as underestimation of the level of effort required to integrate ACS collections into ACE, contributed to these challenges.

¹⁹CBP officials stated that they will issue an updated ACE life-cycle cost estimate by August 2018. In November 2016, CBP completed its most recent reassessment of its investment in ACE and projected ACE life-cycle costs. CBP reported having spent about \$3.5 billion on ACE through fiscal 2015 and estimated that an additional \$1.13 billion would be required to complete and maintain the system through its anticipated life (i.e., through 2026).

The timeline in figure 2 summarizes CBP's efforts to develop and deploy core ACE capabilities since 2013.

Figure 2: Timeline Summarizing CBP Efforts to Develop and Deploy Core Automated Commercial Environment (ACE) Capabilities since 2013



Source: GAO analysis of U.S. Customs and Border Protection (CBP) information. | GAO-18-271

Note: Core ACE capabilities are key activities, processes, and functions that must be performed to automate import and export processing and improving targeting and security, according to CBP officials. "Post-core ACE" refers to the development, operations, and maintenance of ACE after implementation of core capabilities is complete.

Partner Agencies That Clear or License Cargo Have Access to ACE, but Extent of Use Varies

All partner agencies that CBP identified as bearing responsibility for clearing or licensing goods for import or export have been granted some access to ACE data. However, as our case studies of five partner agencies illustrate, the extent to which these agencies use the system varies, and agencies are continuing efforts to enhance their use of ACE.

All Agencies with Responsibility for Clearing and Licensing Cargo Have Been Granted Access to ACE Data

Each of the 22 partner agencies with responsibility for clearing or licensing cargo has signed a memorandum of understanding with CBP that allows access to ACE and details the information the agency will receive through the system, according to CBP officials. Table 1 lists the 22 partner agencies CBP identified as having responsibility for clearing or licensing cargo and as having signed a memorandum of understanding with CBP.

Table 1: Agencies with Responsibility for Clearing or Licensing Cargo That Have Signed Memorandums of Understanding with CBP

Agency	Department
Agricultural Marketing Service	Dept. of Agriculture
Animal and Plant Health Inspection Service	Dept. of Agriculture
Food Safety and Inspection Service	Dept. of Agriculture
Foreign Agricultural Service	Dept. of Agriculture
Bureau of Industry and Security	Dept. of Commerce
National Marine Fisheries Service	Dept. of Commerce
International Trade Administration	Dept. of Commerce
Office of Textiles and Apparel	Dept. of Commerce
Defense Contracts Management Agency	Dept. of Defense
Centers for Disease Control and Prevention	Dept. of Health and Human Services
Food and Drug Administration	Dept. of Health and Human Services
Fish and Wildlife Service	Dept. of the Interior
Bureau of Alcohol, Tobacco, Firearms and Explosives	Dept. of Justice
Drug Enforcement Administration	Dept. of Justice

Agency	Department
Bureau of Ocean and International Scientific Affairs	Dept. of State
Directorate of Defense Trade Controls	Dept. of State
National Highway Traffic Safety Administration	Dept. of Transportation
Alcohol and Tobacco Tax and Trade Bureau	Dept. of the Treasury
Office of Foreign Assets Control	Dept. of the Treasury
Consumer Product Safety Commission	Independent
Environmental Protection Agency	Independent
Office of the U.S. Trade Representative	Independent

Source: U.S. Customs and Border Protection (CBP). | GAO-18-271

According to CBP, each memorandum of understanding specifies data that the partner agency may access in accordance with its responsibilities and as allowed by statute.²⁰ Agencies may obtain these data through ACE in the following ways:

- Agencies may specify data elements to be included in the ACE partner government agency message set—that is, the consolidated set of data that importers and exporters submit electronically. In many cases, the message set includes data elements formerly collected through paper forms, according to CBP officials.
- Agencies may require submission of supporting documents (e.g., cargo manifests) as image files through the ACE Document Image System.

Agencies may access these data directly through ACE or may establish web linkages between ACE and their own data processing systems that will allow their systems to receive automatic transmissions of ACE data. CBP documents show that among the 22 agencies CBP identified as having responsibility for clearing or licensing cargo,

- 16 have established web linkages between ACE and their own data analysis systems,
- 14 obtain agency-specific data through the ACE message set,²¹ and

²⁰Each partner agency's access to ACE data is limited to the data elements specified in the agency's memorandum of understanding with CBP, according to CBP officials.

²¹According to CBP officials, of the 22 agencies with responsibility for clearing or licensing cargo, 8 obtain data on both imports and exports through ACE, 12 obtain data on imports only, and 2 obtain data on exports only.

-
- 17 receive document image files from importers through ACE.

In addition, 15 of the 22 agencies have completed, or are conducting, pilots to initiate or expand their participation in ACE.²²

Appendix II provides detailed information about each of these 22 agencies as well as 27 other partner agencies that CBP did not identify as having responsibility for clearing or licensing cargo. (As app. II shows, these 27 other agencies may use ACE data for a variety of purposes, including analyzing and reporting on international trade flows.²³)

Case Studies Show Variation in Use of ACE among Agencies That Clear or License Cargo

While all of the 22 agencies that CBP identified as having responsibility for clearing or licensing cargo have access to ACE data, our case studies of 5 agencies found considerable variation in the extent to which they use ACE for import processing. As table 2 shows, 4 of these agencies (FDA, NHTSA, CPSC, and APHIS) have established linkages between ACE and their own import data analysis systems, apply ACE data in those systems, and have completed pilots to begin or expand their use of ACE. Agency staff also may access ACE directly to obtain additional information that is not available in their agencies' systems. Nonetheless, we found significant differences in the agencies' use of ACE to obtain agency-

²²Pilot testing is one of many steps agencies reported as necessary to more fully integrate with ACE. Several agencies also noted that the notice and comment process—whereby agencies must notify the public of new rules, through notifications in the Federal Register, and allow a period for public comment—can be a lengthy and complicated process. In addition, integration may require multiple pilot tests, receiving complaints from the trade community, and experiencing technical failures. For examples of partner agencies' Federal Register notifications related to ACE, see Department of Agriculture, Animal and Plant Health Inspection Service, International Trade Data System Test Concerning the Electronic Submission to the Automated Commercial Environment of Data Using the Partner Government Agency Message Set, 81 Fed. Reg. 46640 (July 18, 2016) (advising the public of the success of a pilot test for the electronic submission of data via ACE, among other things); and Department of State, International Traffic in Arms Regulations: International Trade Data System, Reporting, 82 Fed. Reg. 15 (Jan. 3, 2017) (issuing a final rule allowing businesses to electronically submit the data required to import or export cargo, as provided by Executive Order 13659 and the Security and Accountability for Every Port Act of 2006 (SAFE Port Act), among other things).

²³According to CBP documents, several of these 27 other agencies have not concluded an ACE memorandum of understanding with CBP and do not appear to be accessing ACE—in some cases because ACE does not generate information that serves an agency need, according to CBP and Treasury Department officials.

specific data from importers: While FDA and NHTSA have largely transitioned to using ACE for this purpose, CPSC and APHIS use it to a more limited extent, and FWS continues to obtain data on imported goods largely without using ACE. All five agencies reported ongoing efforts to resolve difficulties related to using ACE and make greater use of the system.

Table 2: Five Selected Agencies' Use of CBP's Automated Commercial Environment (ACE) as Reported by CBP

Agency ^a	Agency data analysis system linked to ACE ^b	Data submission through ACE required or requested ^c	Accesses data through ACE message set or document image system ^d	Status of ACE pilot ^e
Food and Drug Administration	Linked	Required	Message set	Completed
National Highway Traffic Safety Administration	Linked	Required	Both	Completed
Consumer Product Safety Commission	Linked	Requested Considering additional data elements	Neither ^f	Completed
Animal and Plant Health Inspection Service	Linked	Requested but minimally used	Both	Completed
Fish and Wildlife Service	Not linked	Not required or requested	Neither	Suspended

Source: U.S. Customs and Border Protection (CBP). | GAO-18-271

Note: We conducted case studies of the five agencies shown. We selected these agencies from 22 that CBP indicated require documentation for clearing or licensing cargo, basing our selection on the extent to which they require documentation to clear and license cargo and their size, among other factors. For additional information about these agencies, see [GAO-18-271](#), appendix II.

^aAccording to CBP officials, in accordance with CBP policy, agencies whose responsibilities require access to ACE data must conclude a memorandum of understanding with CBP, specifying the data that the agency requires importers or exporters, or both, to submit and the ways that the data will be transmitted to the agency. Authorized staff of these agencies receive access to the specified data.

^bAgencies that have established Internet linkages between their data analysis systems and ACE receive automatic transmissions of data submitted through ACE.

^cAccording to CBP, agencies have either required or requested the submission of data from importers and exporters through ACE. For each of the five selected agencies, we show data submission through ACE as required or requested on the basis of information from CBP and the selected agency.

^dAgencies may add data elements specific to the agency's mission to the consolidated set of data that partner agencies have requested that ACE collect from importers and, exporters, known as the partner agency message set. Agencies may also obtain supporting documents (e.g., cargo manifests) as image files through the ACE document image system.

^eThe agencies shown undertook pilots to test their technical abilities to receive information from importers.

^fThe Consumer Product Safety Commission obtains and applies the standard data that CBP collects on imports but does not obtain any agency-specific data.

FDA Uses ACE Data to Review and Target Imports for Health Risks

Food and Drug Administration (FDA)

FDA applies health and safety standards to a variety of imported products, including food, drugs, cosmetics, medical devices, biologics, tobacco, and radiation-emitting electronic products. To carry out these functions, FDA maintains a nationwide network of port-based staff with authority to review and, if necessary, refuse entry to goods that do not comply with pertinent laws and regulations that it enforces. FDA maintains two internal information technology systems to assist these efforts: the Operational and Administrative System for Import Support, for admissibility review of imports, and the Predictive Risk Evaluation for Dynamic Import Targeting system, a risk-based screening tool that performs an initial electronic screening of import entries containing FDA regulated articles to target those items with potentially higher public health risk for a manual admissibility review.

Source: GAO analysis of FDA documents. | GAO-18-271

FDA has integrated its internal systems with ACE and uses ACE data to review imports under its jurisdiction, targeting FDA-regulated imports that pose higher public health risks for manual review to determine the imports' admissibility, according to FDA officials. FDA has worked with CBP to establish bilateral transmission of import entry data between CBP and FDA since 1997, when the two agencies linked FDA's earlier import operations system with CBP's ACS, according to FDA. Consequently, FDA officials described the transition to ACE as an upgrade, substantially expanding the information available to the agency, rather than a new approach to processing imports.

FDA officials stated that they coordinated with the trade community and CBP to complete the transition to using ACE. For example, the officials said that they consulted with the trade community to develop FDA's ACE message set, with the goal of improving the clearance process. According to FDA officials, the data that the agency required through the message set included more information than it had previously required from importers through ACS. FDA officials explained that their intent in adding data elements was to facilitate the automated admissibility review of low-risk FDA-regulated articles and thus focus agency resources on articles associated with a higher public health risk. Additionally, FDA worked with the trade community to develop recommendations for technical enhancements to ACE. Finally, FDA tested the new systems and the viability of the message set in a pilot that it successfully concluded in 2016.

According to agency officials, in November 2016, FDA issued a final rule requiring that the trade community, when electronically submitting an entry in ACE, provide certain information on all incoming cargo that is subject to FDA regulation. In most cases, FDA finds this information sufficient to determine admissibility. However, in about 3 percent of cases, FDA requests additional information directly from importers, using the agency's Import Trade Auxiliary Communications System. FDA officials stated that the agency is pursuing improvements in its ability to communicate with importers via ACE.

NHTSA Uses ACE Data to Review Motor Vehicle Imports

National Highway Safety Transportation Administration (NHTSA)

NHTSA works to ensure that imported motor vehicles and equipment (e.g., tires) meet U.S. safety standards. According to agency officials, because NHTSA does not have independent authority to hold incoming cargo and does not have any staff at U.S. ports, it relies on U.S. Customs and Border Protection officials to hold and inspect cargo and to take enforcement action if indicated (e.g., seizing goods or denying entry) in consultation with NHTSA. To fulfill its tasks, NHTSA uses its Motor Vehicle Importation Information database to assist in admissibility and targeting decisions.

Source: GAO analysis of NHTSA documents. | GAO-18-271

NHTSA is using ACE data to review and clear imported motor vehicles and equipment for entry into the U.S. market and works with CBP to assess the compliance of certain products offered for importation. NHTSA established an electronic link between its internal system and CBP's ACS in 1992. At that time, NHTSA and CBP arranged for importers to submit NHTSA's required paper form electronically through ACS. In 2015, NHTSA began transitioning to ACE by pilot-testing submission of data for a large ACE message set. According to NHTSA officials, the testing process revealed significant technical problems. Prior to the pilot testing, the trade community expressed concern about the number of data elements that NHTSA asked CBP to collect from the trade community. The Office of Management and Budget determined that certain proposed requirements were burdensome for the trade community and asked NHTSA to eliminate some of these requirements. Subsequently, in March 2016, NHTSA completed its transition to ACE with fewer data requirements.

In addition to using ACE data, NHTSA continues to obtain information directly from importers, when necessary, through its Motor Vehicle Importation Information system. For example, according to NHTSA officials, the agency requests information through its system when it identifies reporting errors in ACE or when additional information is needed for certain temporary imports, such as vehicles or equipment imported for research or demonstration purposes. NHTSA officials stated that they are working with CBP to overcome a major challenge to efficient collaboration: NHTSA uses vehicle identification numbers to track imported vehicles, while ACE does not. According to NHTSA officials, NHTSA has developed a database to provide public access to manufacturer identification and vehicle identification number-deciphering information submitted by manufacturers. According to NHTSA, CBP port staff have begun accessing the database but it has not yet been linked to ACE.²⁴

²⁴For more information about NHTSA's Product Information Catalog and Vehicle Listing database, see <https://vpic.nhtsa.dot.gov>.

CPSC Uses ACE Data to Target Imported Consumer Products

Consumer Product Safety Commission (CPSC)

CPSC protects the public from unreasonable risk of injury or death associated with consumer products, including over two-thirds of all categories of imported goods, such as toys, children's sleepwear, and household electronics. CPSC expanded examination of imported goods in 2008 following passage of the Consumer Product Safety Improvement Act of 2008, which required the agency to develop a risk-assessment methodology for certain imports. CPSC maintains a limited presence at U.S. ports and has independent authority to hold incoming cargo for inspection. The agency employs its Risk Assessment Methodology targeting system to assist in its import oversight responsibilities by generating potential targets for inspection.

Source: GAO analysis of CPSC documents. | GAO-18-271

CPSC uses only ACE data collected under CBP authority to support its oversight of consumer product imports and is considering expanding the information it receives from ACE. CPSC's internal Risk Assessment Methodology targeting system focuses on 300 high-risk categories of imports listed by CPSC, using U.S. Harmonized Tariff Schedule codes, and currently receives the standard data that CBP obtains via ACE on all imported goods under the agency's jurisdiction, according to CPSC officials. After launching an initial pilot version of its system in 2011, CPSC initiated discussion with the trade community in 2014 about expanding its electronic data reporting requirements to add certain data elements to the ACE message set that would assist the agency in determining whether incoming products meet applicable standards.²⁵ However, CPSC reduced the scope of the proposed expansion of reporting requirements after trade community representatives expressed concerns. In 2016, CPSC concluded an initial, limited pilot test of electronic filing of several additional data elements. According to CPSC officials, the agency plans to study the benefits of adding these elements before it initiates a second pilot and has not reached a final decision about requiring importers to submit any additional information through ACE.

CPSC staff continue to rely primarily on the agency's internal targeting system to target incoming shipments for review and possible inspection, with contributions from CPSC staff at CBP's Commercial Targeting and Analysis Center and at ports, according to CPSC officials. These officials stated that the agency's representative at the Commercial Targeting and Analysis Center employs CBP and CPSC resources to generate about 30 percent of the targeting orders disseminated to CPSC staff at ports. Agency staff at two New York ports told us that ACE can be a useful source of additional information for their local targeting efforts.

²⁵According to CPSC officials, CPSC's discussion with the trade community concerned the addition of data elements from a paper CPSC form to the ACE message set.

APHIS Makes Limited Use of ACE Data to Review Imports for Agricultural Risks

Animal and Plant Health Inspection Service (APHIS)

APHIS collaborates with Customs and Border Protection agricultural specialists to keep agricultural pests and diseases out of the United States. In pursuit of this mission, the agency maintains Plant Protection and Quarantine and Veterinary Services units at some ports of entry and operates its own data analysis system, the Agriculture Risk Management system. APHIS also implements a requirement to file a plant and plant produce import declaration on arrival in the United States, as mandated under the 2008 Lacey Act. Importers may file the declaration in ACE or in APHIS's Lacey Act Web Governance System.

Source: GAO analysis of APHIS documents. | GAO-18-271

APHIS's use of ACE data remains limited while the agency works to expand linkages between its data processing systems and ACE. According to APHIS officials, the agency did not establish an electronic link to ACS, ACE's precursor system, and instead used paper forms in its import review processes. In 2016, the agency pilot-tested electronic submission of APHIS-specific partner agency message set data through ACE and subsequently announced that data could be submitted through ACE for APHIS compliance review. However, trade community participation remains voluntary except for Lacey Act-covered imports.²⁶ According to APHIS officials, companies that import APHIS-regulated products have been slow to invest the resources required to transition to reporting through ACE and, as a result, use paper forms to submit information about most shipments of such products. However, APHIS officials observed that reporting through ACE occurs for a small but growing share of all imports subject to APHIS regulation.

APHIS has been collaborating with CBP to provide for the effective flow of information between ACE and APHIS's systems, but these efforts remain incomplete. While staff of APHIS's Veterinary Services unit may access ACE data directly to complete their import review processes, APHIS intends for its Plant Protection and Quarantine staff to access ACE data through the agency's Agriculture Risk Management system, according to APHIS officials. However, these officials informed us that the functionality required for accessing ACE data through that system is still under development. They explained that Plant Protection and Quarantine staff will use ACE to receive and reply to inquiries from, and provide assistance to, CBP agricultural specialists regarding incoming cargo requiring inspection and that significant coordination is required to fully integrate the two agencies' data processing systems.

APHIS officials observed that a CBP requirement for partner agencies to complete extensive background checks of staff before they can receive access to ACE has presented another obstacle to greater use of the system by staff of both Plant Protection and Quarantine and Veterinary

²⁶Importers of goods subject to the Lacey Act must submit Lacey Act-specific import declarations. According to APHIS officials, the information provided in these declarations is then combined with data submitted through ACE for review by Plant Protection and Quarantine.

Services.²⁷ In November 2017, APHIS officials informed us that more than 100 agency staff had completed these background checks and thus had access to ACE but that the current number of users remained insufficient to process many APHIS-regulated goods in ACE.²⁸

Fish and Wildlife Service (FWS)

FWS monitors wildlife trade and works to prevent the illegal importation or exportation of species (including parts and products thereof) that are regulated under the Convention on International Trade in Endangered Species of Wild Fauna and Flora and U.S. wildlife laws and regulations, according to U.S. Customs and Border Protection (CBP). Virtually all wildlife imports and exports must be declared to FWS and cleared by FWS wildlife officers, according to CBP. To carry out its responsibilities, FWS maintains staff at 38 U.S. ports and generally requires that all internationally traded wildlife and wildlife products be routed through designated ports. FWS staff are able to place holds on, to inspect, and to deny entry or exit to incoming or outgoing cargo, according to agency officials. FWS staff obtain information about incoming or outgoing cargo from data filed by the trade community in the agency's own data analysis and targeting system, the Law Enforcement Management Information System.

Source: GAO analysis of CBP and FWS documents. | GAO-18-271

Fish and Wildlife Service Makes Little Use of ACE Data

FWS use of ACE data in its import review and regulation activities has been minimal, in part because of technical challenges. According to FWS officials, the agency attempted during the 1990s to integrate its activities with ACS. After concluding that ACS did not meet FWS needs, the agency discontinued these efforts in 2000 and developed its own Electronic Declarations system for the trade community to submit data to the agency's data analysis and targeting system. Agency officials told us that FWS port staff may access ACE and that some find it a useful source of additional information on incoming cargo. However, FWS has not yet integrated ACE into FWS operations.

FWS officials told us that lack of alignment between the Harmonized Tariff Schedule codes that CBP uses to organize its work and FWS's regulatory responsibilities constitutes a significant challenge in integrating ACE into FWS operations. For example, the tariff schedule may indicate only that an import is leather footwear, while FWS operations may also require additional information about the leather's source, such as the type of animal, its nation of origin, and its domestication status. According to FWS and CBP officials, FWS has so far been unable to overcome this difficulty.

²⁷ According to APHIS officials, the capability for agricultural pests and diseases to enter the United States is not limited to agricultural products; consequently, APHIS officials need broad access to CBP entry information on all imported commodities. As a result, according to agency officials, CBP guidance requires that APHIS users of ACE must complete a relatively extensive "Tier 4" background investigation.

²⁸ Delays in obtaining these clearances have been a particular problem for Veterinary Services, according to APHIS officials. In June, 2017, APHIS officials informed us that background investigations had been completed for fewer than 10 Veterinary Services port staff and that, as a result, Veterinary Services-regulated entries submitted through ACE at ports where no Veterinary Services staff have access to the system must be processed by the service's staff at other ports. Officials of Veterinary Services estimated that less than 1 percent of all entries that it regulates at ports it staffs were being processed through ACE.

According to FWS officials, the agency pilot-tested participation in ACE during 2016 but suspended the test in January 2017 in light of trade community concerns about expanded reporting requirements, lack of clarity in the requirements, and uncertainty regarding FWS's authority to collect data electronically. According to FWS officials, the agency subsequently began efforts to reach agreement with trade community representatives and CBP on an approach to data collection through ACE that will meet the needs of both FWS and the trade community. FWS officials stated in November 2017 that these discussions had produced an interim solution and were continuing and that FWS and CBP planned to resume pilot testing in March or April 2018.

ACE Users Report Cost Savings and Enforcement Benefits

CBP and partner agency officials and trade community representatives told us that their use of ACE has reduced costs by increasing the efficiency of trade processing. CBP and partner agency officials also reported that the system has strengthened their ability to enforce trade laws and regulations. CBP has developed metrics for itself and the trade community that estimate savings associated with the increased efficiency of some processes in ACE. According to CBP documents and officials, the agency plans to expand its metrics for capturing ACE benefits—for example, to estimate the value of increased efficiencies for partner agencies and to measure any savings associated with the remaining core ACE capabilities after they are implemented.

ACE Users Report the System Has Improved Efficiency, Reduced Costs, and Enhanced Enforcement

Agencies and Trade Community Report Improved Efficiency and Associated Savings

CBP, partner agencies, and trade community representatives who use ACE to conduct their work told us that the use of ACE had improved the efficiency of import processing and brought associated cost savings.

- **Fewer paper records.** According to CBP officials at the Port of New York, the use of ACE for electronic data submission has significantly reduced reliance on paper forms in processing imports. The officials

noted that before ACE was implemented, their reception area was typically filled with couriers delivering large volumes of paper for manual processing. CBP officials told us that electronic data submission through ACE had allowed CBP and partner agencies to automate over 250 paper forms. In addition, one trade community representative we spoke with said that elimination of paper records had been the primary benefit realized through ACE implementation. CBP has estimated, on the basis of an informal poll survey of private companies, that eliminating document delivery to CBP offices would save \$25 per courier trip.²⁹

- **Faster processing.** According to CBP and partner agency officials, ACE's automated review of data submitted by importing companies speeds the agencies' processing and clearing of eligible shipments for release. CBP officials at the Port of New York commented that although reviewing and clearing incoming cargo for release through ACS required approximately 24 hours, performing this process through ACE takes only a few minutes if data are complete and properly formatted and if the cargo does not require inspection. For example, CBP officials stated that the Environmental Protection Agency formerly took an average of about 4 days to clear cargo for release into the U.S. market but now takes only seconds to clear nonproblematic shipments. CBP officials further observed that the reduction in document processing and the elimination of manual data review for nonproblematic imports increases the time available for CBP officials at ports to engage in tasks such as examining cargo that may violate U.S. trade and customs laws. In addition, NHTSA officials stated that ACE had substantially speeded their review and clearance process. Further, FDA reported that since the agency's cargo review and clearance process had been linked to ACE, the portion of incoming FDA-regulated cargo receiving an automated "may proceed" had increased from 26 to 62 percent and processing time for these entries averaged less than 2 minutes. According to trade community representatives and CBP officials, ACE has also dramatically reduced

²⁹According to CBP, five agencies continue to require submission of some information in paper form. For example, APHIS requires paper submission of foreign veterinary health and phytosanitary certificates for imports of animals and agricultural products, respectively, according to agency officials.

the time required to file bond applications, from several days to a few seconds.³⁰

³⁰According to CBP, importers must obtain bonds for almost all formal entries. There are many types of bonds, covering different requirements. For instance, according to CBP, the main purpose of a customs bond is to ensure that the payment of import duties, taxes and fees owed to the federal government will be paid.

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- **Reduced labor and storage costs.** CBP officials and trade community representatives reported that efficiency improvements resulting from the use of ACE can lead to substantial labor- and storage-cost savings for the trade community. CBP officials observed that expedited processing can reduce storage and demurrage costs for importers.³¹ For example, CBP officials commented that companies in the Newark, N.J., area could be charged \$250 to \$300 per day to store a container awaiting clearance to enter the U.S. market.
 - **Fewer supply chain disruptions.** CBP and trade community representatives reported that ACE had reduced the negative impacts that import processing delays can have on company supply chains. For example, a pharmaceutical company representative stated that ACE had reduced delays in processing incoming cargo that, before ACE was implemented, sometimes lasted for 10 days or longer, resulting in costly supply chain failures. According to this representative, a longer-than-expected delay of an imported material that is a vital ingredient in a time-sensitive clinical trial or a treatment could result in significant material losses.

CBP and Partner Agencies Report ACE Has Improved Enforcement

While ACE is not a targeting system, the data that ACE provides has improved CBP's and partner agencies' ability to identify and examine incoming cargo for inspection, according to CBP and partner agency officials. For example, ACE, in addition to other sources, provides data that CBP uses in its Automated Targeting System and that most of the partner agencies we examined use in their data analysis and targeting systems to flag relatively high-risk cargo for possible inspection by port officials. (See text box for examples of CBP's and partner agencies' targeting efforts.)

³¹Demurrage is a penalty charge against shippers or consignees for delaying the carrier's equipment or vessel beyond the allowed free time.

Examples of CBP and Partner Agency Efforts to Target High-Risk Imports

U.S. Customs and Border Protection (CBP) and its partner agencies perform targeting of imports at the national and local levels. For example:

- **CBP.** At the national level, CBP maintains the Automated Targeting System, which compares traveler, cargo, and conveyance information against law enforcement, intelligence, and other enforcement data, using risk-based targeting scenarios and assessments to identify relatively high-risk cargo. CBP also operates the Commercial Targeting and Analysis Center, which facilitates targeting and enforcement information sharing among partner agencies involved in clearing or licensing cargo. In addition, CBP maintains five National Targeting and Analysis Groups, each targeting higher-risk imports related to one of the CBP's priority trade issues. For instance, the National Targeting and Analysis Group for Trade Agreements targets shipments for which the country of origin has been misrepresented to avoid import duties.^a CBP officials at ports of entry also conduct locally focused targeting efforts.
- **Partner agencies.** All five of the partner agencies we selected for our review—the Food and Drug Administration, the National Highway Traffic Safety Administration, the Consumer Product Safety Commission, the Animal and Plant Health Inspection Service, and the Fish and Wildlife Service—work with CBP in the Commercial Targeting and Analysis Center while also employing their own import data analysis and targeting systems. In addition, agencies with personnel at U.S. ports of entry may conduct locally focused targeting efforts.

Source: GAO analysis of CBP and partner agency documents. | GAO-18-271

^aCBP's four other National Targeting and Analysis Groups focus on antidumping and countervailing duties, revenue, textiles, and intellectual property rights. CBP defines priority trade issues as high-risk areas that can cause significant revenue loss, harm the U.S. economy, or threaten the health and safety of the American people.

CBP officials indicated that ACE had improved their trade enforcement efforts. For example:

- CBP officials stated that ACE's streamlining of import processing helps to better ensure compliance with trade laws and regulations. CBP port staff stated that reduction in the time required to process paper forms has allowed them to devote more time to higher value-added activities such as inspecting incoming cargo. In addition, CBP officials at the Commercial Targeting and Analysis Center said that it was easier to access and generate reports in ACE than in ACS.
- CBP officials observed that ACE's collection of additional information facilitates trade enforcement. Officials in the agency's National Targeting and Analysis Groups explained that ACE functions as a valuable system of record that can be employed to refine and focus targeting efforts, as the results of each examination undertaken are recorded in ACE for future reference.³² Similarly, CBP officers in the

³²CBP maintains five National Targeting and Analysis Groups, each targeting higher-risk imports related to one of CBP's five priority trade issues (i.e., revenue, antidumping and countervailing duties, trade agreements, textiles, and intellectual property rights).

New York area said that ACE was a valuable source of additional information—for example, data on particular products or importing companies—that helped them in their local targeting efforts.

In addition, partner agency officials at ports indicated that ACE data were indirectly or directly useful in their enforcement efforts. For example, FDA officials in the New York area told us that, while they do not access ACE directly, FDA's targeting system, on which they primarily rely, does access ACE data. FDA headquarters officials noted that ACE provides the agency's targeting system with more data elements than it received through ACS and that this has led to greater processing efficiency. A CPSC port official stated that he found ACE a very useful source of information that helped him to refine his local targeting efforts.

CBP expects the use of ACE to also yield indirect, economy-wide benefits by improving the targeting of shipments that violate U.S. trade policy, according to a CBP official and a CBP analysis. For example, according to a CBP official we interviewed, more-thorough enforcement of U.S. anti-dumping and countervailing duty orders would reduce the entry of products that unfairly compete with U.S. producers.³³ Similarly, a cost-benefit analysis that CBP conducted in 2002 cited reduced predatory or unfair trade practices as a potential benefit of ACE.³⁴ In addition, the CBP official observed that the use of ACE for targeting shipments could help to prevent injuries to American consumers by reducing the number of unsafe foreign products that enter the U.S. market.

³³CBP enforces antidumping and countervailing duty orders, which the Department of Commerce may issue on determining that specified imported goods are being sold in the United States at less than fair value (i.e. "dumped") or benefit from foreign-government subsidies, according to the U.S. International Trade Commission.

³⁴U.S. Customs and Border Protection, *Cost Benefit Analysis: Final*, ver. 2.0, 02-eCP-0531 (Feb.12, 2002). CBP's analysis compared the then current value of expected costs for developing and implementing ACE over time with the then-current value of expected benefits and concluded that the benefits—which CBP estimated at \$24 billion, including \$19 billion for the trade community—would outweigh the costs.

CBP Has Developed, and Plans to Expand, Metrics to Estimate the Value of Process Efficiencies Gained through ACE

CBP Has Developed Some Metrics to Value Efficiency Gains for Itself and the Trade Community

CBP has developed metrics to estimate the value of efficiency gains associated with the use of some of the implemented ACE capabilities for itself and the trade community. CBP's metrics capture reductions in the time required for CBP staff to complete certain import processes now included in ACE and translate these efficiency gains into dollar values.³⁵ CBP performs similar calculations for the trade community, using survey data from companies on the savings they estimate are realized when import processes are transitioned into ACE. For fiscal year 2017, CBP estimated that efficiencies gained through the implemented core ACE capabilities for which it had developed metrics had a total value of nearly \$28 million for itself and about \$52 million for the trade community. These metrics estimate potential cost savings associated with efficiency gains resulting from the use of ACE, according to CBP officials; the estimates do not account for CBP's costs for developing and maintaining ACE, which, according to CBP, amounted to about \$118 million in fiscal year 2017. In addition, the estimates do not account for costs that the trade community has sustained in adapting to ACE. For example, one representative of a large company estimated that the total cost of developing appropriate software had exceeded \$12 million.³⁶

CBP's metrics capture increased efficiency gains in a number of areas. For example, ACE includes a feature that allows members of the trade community to submit corrections to data on incoming shipments after the

³⁵CBP officials stated that such efficiency gains do not necessarily mean that the agency's labor costs have declined over time and that CBP has not estimated the extent to which the potential labor cost savings suggested by these increased efficiencies have been realized.

³⁶CBP's cost savings metrics measure potential savings during limited time frames but do not provide sufficient information for concluding whether ACE will achieve net benefits over its life cycle. Unlike cost-benefit analyses, which assess whether an investment will yield benefits that exceed costs over its entire life cycle, CBP's ACE cost savings metrics estimate operational cost savings over limited periods of time—monthly and annual—and do not account for the costs of developing and maintaining the system. According to CBP officials, the agency does not forecast future cost savings.

data have been summarized and presented to, and accepted by, CBP. Importers formerly requested such “post summary corrections” by submitting a paper form for CBP’s review. To capture the value of this procedural change for CBP, the agency surveys CBP officials to determine their time savings on each post summary correction and multiplies the average per-transaction time saved by the number of summaries submitted and the CBP officials’ average hourly compensation rate. To capture the value of the change for members of the trade community, CBP surveys importers, brokers, and shippers to determine their average savings for each transaction and multiplies the reported savings by the number of summaries submitted. CBP’s metrics also capture reductions in the time that CBP officers devote to completing primary processing for incoming cargo, the time that trucks must spend waiting at border crossings for clearance to enter the United States, and the time that CBP and members of the trade community devote to processing applications for customs bonds, among other things.

CBP’s estimate of the value of efficiencies resulting from the use of ACE has grown over time. For example, for fiscal year 2014, CBP estimated the total value of these efficiencies for CBP and the trade community at about \$33 million—about 40 percent of the total value of such efficiencies CBP reported for fiscal year 2017. This increase reflects CBP’s progress in deploying core capabilities and in developing and applying metrics to capture the capabilities’ value to CBP and the trade community. The increase in the estimated value also reflects growing use of ACE by partner agencies and members of the trade community. For example, the number of import entry summaries that partner agencies filed in ACE increased fourfold in the 3-year period from January 2014 through January 2017.

According to CBP officials, CBP and partner agencies are unable to develop metrics to quantify trade enforcement benefits that may have resulted from their use of ACE, in part because of a lack of baseline information and the difficulty of isolating such impacts. For example, an increase in seizures may reflect increased efforts, increased efficiency in those efforts, or an increase in the volume of imports subject to seizure. Similarly, according to a CBP official, a lack of baseline information makes it difficult to assess any broader impacts of improved trade enforcement resulting from the use of ACE, such as prevention of injuries to American consumers through better targeting of harmful foreign products.

CBP Plans to Expand Its Metrics for Savings and Other Benefits

CBP reported that it is working to expand its metrics for estimating cost savings associated with improved trade processing efficiencies and other benefits resulting from the use of ACE.

- CBP officials stated that they expect to have collected sufficient data in the near future to begin reporting on the estimated dollar value of efficiencies that partner agencies are realizing through ACE. While CBP measures efficiency improvements and associated savings resulting from CBP and the trade community's use of ACE, CBP and most partner agencies currently do not collect or report information about efficiency improvements or associated savings that the partner agencies may have realized.
- CBP has prepared baseline information that will allow it to measure efficiency improvements and estimate any savings associated with several post-release core ACE capabilities, including reconciliation, liquidation, and drawback, after they are implemented. For example, on the basis of an internal study completed in late 2016, CBP has determined that agency officials take about 1.8 hours, on average, to process a drawback entry summary. Comparing this average time with the average time required after this post-release capability is implemented in ACE will allow CBP to calculate the average time saved per transaction. CBP plans to obtain comparable information from the trade community to allow similar calculations of efficiency improvements for importing companies.³⁷
- CBP officials stated that, while the agency does not currently measure any improvement in revenue collection that may have resulted from the implemented capabilities, CBP plans to undertake efforts to better understand the current revenue collection environment and to explore ways to collect baseline information on revenue collections. The officials said that CBP intends to identify revenue collection metrics that are quantifiable and reportable after it deploys the liquidation and

³⁷The results of CBP's 2016 survey of ACE users suggest that the trade community may realize substantial savings from introduction of remaining core capabilities. For example, on average, trade community respondents to the survey estimated that adding drawback and reconciliation to ACE would result in savings of about \$11 and \$247 per transaction, respectively.

reconciliation capabilities in ACE and completes deployment of collections.³⁸

- According to CBP documents, CBP's Office of Trade has outlined a strategy for improving the agency's ability to measure benefits resulting from the use of ACE. CBP documents indicate that this strategy will include efforts to measure, to the extent that data are available, the impact of any enhancements to the system after implementation of core capabilities is complete, including enhancements identified as critical components in improving import or export operations.

Approach to Managing ACE after Implementation of Core Capabilities Has Not Been Established

CBP does not have a process in place to manage the continued development of ACE after February 2018, when it finished implementing most of the capabilities it identified as core. ACE users in CBP, partner agencies, and the trade community have identified a number of shortcomings in ACE and have suggested enhancements to address them. CBP has identified a small number of enhancements suggested by CBP and the trade community as near-term priorities and identified a number of others to consider for priority status. However, a substantial number of additional suggested enhancements, including submissions from partner agencies, remain unaddressed. Further, a process for prioritizing all suggested enhancements has not been established. Moreover, funding for the continued development of ACE after fiscal year 2018—including funding to address most of the suggested enhancements—has not been identified. CBP and its partner agencies are working to establish a management approach that includes processes for prioritizing and funding enhancements from all sources, but it is unclear when these discussions will conclude or the extent to which they will resolve outstanding issues. Federal guidance calls for establishing the

³⁸CBP officials also informed us that they are exploring ways to use an economic benefits model that is currently being pilot-tested by the agency's Office of Trade to help quantify the economic benefits gained through deployment of ACE. According to the officials, the model is designed to quantitatively link Office of Trade resources and activities, including ACE, to mission outputs and to evaluate the impact and value of those outputs on the U.S. economy.

organizational structure necessary to achieve objectives, including compatible means of operating across agency boundaries.

ACE Users Have Identified Shortcomings in ACE and Suggested Enhancements to Address Them

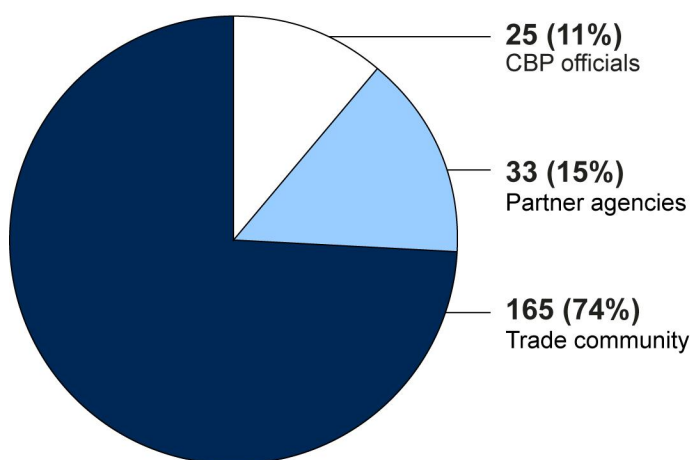
ACE users in CBP, the trade community, and partner agencies have identified a variety of shortcomings in ACE and have suggested enhancements to address them. Examples of reported shortcomings include the following:

- CBP officials tasked with validating data in ACE to assess compliance with trade laws and with processing importers' protests of duty assessments told us that performing those tasks in ACE is labor intensive and cumbersome.
- CBP and agency officials noted that ACE has not yet been updated to respond to a number of legal requirements, including several TFTEA provisions and agency regulations necessitating certain enhancements to ACE.
- Some partner agency officials cited capabilities that were included in ACS but, despite being needed by the agencies for their import review and enforcement responsibilities, had not been deployed in ACE.
- CBP agriculture specialists identified a number of shortcomings in ACE capabilities for processing imported agricultural goods. ACE contains a "workspace" specifically designed for agricultural goods, but it is incomplete.
- Trade community officials highlighted the need for a variety of improvements in the arrival/cargo-release and post-release phases of the import process, such as improving the ability of agency officials and the trade community to send messages in ACE and increasing the size of files that the trade community can submit.
- A 2016 CBP survey of ACE users, including trade community representatives and partner agency officials, found that while the majority of respondents were satisfied with the ease of using ACE, substantial minorities (29 percent of CBP respondents, 36 percent of partner agency respondents, and 31 percent of trade community respondents) were dissatisfied, citing concern with navigation and functional limitations.

In response to such shortcomings, ACE users have submitted a large number of suggestions for enhancements to ACE. According to a CBP

document, as of July 2017, 671 enhancements had been submitted since the early 2000s and many of these had been addressed;³⁹ however, a third of those submitted (223) remained to be addressed. Of the unaddressed enhancements, nearly three-quarters were submitted by trade community representatives (see fig. 3). According to CBP officials, funding constraints, as well as the effort required to complete deployment of core ACE capabilities within established time frames, largely precluded efforts to address enhancements over the last year. CBP officials stated that, because ACE is not funded to support enhancements, funding for enhancements suggested by CBP or the trade community must be provided by a CBP unit and funding for enhancements suggested by a partner agency must be provided by that agency.

Figure 3: Numbers of Unaddressed Suggested Enhancements to CBP Automated Commercial Environment, by Source, 2001-2017



Source: U.S. Customs and Border Protection (CBP) documents and data. | GAO-18-271

Note: According to CBP, enhancements suggested by the trade community were submitted from 2001 through mid-July 2017; by CBP officials, from 2015 through mid-July 2017; and by partner agencies, from 2016 through mid-July 2017.

While postponing action on these suggestions, as of November 2017 CBP had prioritized seven enhancements suggested by CBP staff or the

³⁹According to CBP, 204 of the reported total of 671 suggested enhancements (30 percent) had been developed, while another 244 (36 percent) had been rejected or withdrawn. According to CBP, the most common reasons for rejection have been that the suggested enhancement did not align with what CBP wished to implement, or that it reflected something that CBP already planned to implement. Those withdrawn were most commonly trade community suggestions that were addressed as core ACE implementation proceeded.

trade community to be implemented in the near term, most of them in response to legal or technical requirements. CBP also had identified 22 additional enhancements suggested by CBP staff or the trade community for consideration as priorities.⁴⁰

Prioritized enhancements. CBP's seven prioritized ACE enhancements include two that had been scheduled for implementation in fiscal year 2017 and five that were scheduled for implementation as post-core activities begin.⁴¹ According to CBP officials, the agency prioritized three of the seven enhancements in response to provisions in TFTEA; one of these three, pertaining to drawback processes, was necessitated by changes in the act, and the other two were intended to support changes in CBP procedure mandated by the act, according to CBP officials (see table 3). The CBP officials said that a fourth enhancement was required to comply with a new electronic filing rule by the U.S. Court of International Trade and that a fifth was needed to correct technical obsolescence.⁴² As table 3 shows, the information that CBP officials provided identified in general terms the enforcement or other benefits that could be realized through addressing these prioritized enhancements. As the table shows, as of September 2017, CBP had identified funding for three of these seven priorities.

⁴⁰According to CBP officials, there is not a one-to-one correspondence between individual suggestions submitted by CBP or the trade community and the agency's lists of priority and unprioritized initiatives. Several suggestions may be combined in one initiative for implementation. CBP officials added that not all initiatives are associated with specific suggestions.

⁴¹An eighth enhancement that CBP prioritized for implementation in fiscal year 2017—moving a foreign trade zones form from ACS to ACE to correct a technical obsolescence—was completed as of December 2017, according to CBP officials.

⁴²This discussion excludes two CBP priorities that are required to allow for ACS to be decommissioned, according to CBP.

Table 3: Prioritized Enhancements to CBP's Automated Commercial Environment as of September 2017

Enhancement	Expected benefit	Reason cited by CBP	Status ^a
Truck manifests: Update truck manifest capability to the ACE platform used to process ocean, rail and air manifests. ^b	Provide benefits to CBP by placing all manifest processing on one ACE platform.	To correct technical obsolescence	In process. Funding identified.
U.S. Court of International Trade: Allow CBP to electronically send ACE data to the U.S. Court of International Trade. ^c	Provide benefits to CBP by placing all manifest processing on one ACE platform.	To implement new U.S. Court of International Trade Rule 73.1	In process. Funding identified.
Drawback claims: Develop capability for all drawback claims to be submitted electronically. ^d	Streamline filing for the trade community to reduce processing times and increase cost savings.	To meet requirement in TFTEA, Section 906	In process; to be completed by February 2018. Funding identified.
Importer data submissions: Increase amount of data submitted electronically on CBP Importer of Record Form 5106.	Provide substantial benefits to CBP and the trade community by streamlining processes to reduce processing times and increase cost savings.	To support CBP processes required by TFTEA, Section 115	High-level requirements under review. Funding not yet identified.
De minimis shipments: Allow partner agency data to be submitted for de minimis shipments without assessing any duties or fees. ^e	Provide substantial benefits to CBP and the trade community by streamlining processes to reduce processing times and increase cost savings.	To support CBP processes required by TFTEA, Section 901	Review of required level of effort in process. Funding not yet identified.
Foreign-trade zones: Incorporate partner agency data into the Foreign Trade Zone admissions process. ^f	Provide substantial benefits to CBP and the trade community by streamlining processes to reduce processing times and increase cost savings.	To align with CBP mission priority	Review of required level of effort in process. Funding not yet identified.
Ocean shipments: Allow non-vessel operating common carriers to process cargo data for ocean shipments through ACE.	Provide substantial benefits to CBP and the trade community by streamlining processes to reduce processing times and increase cost savings.	To align with CBP mission priority	On hold, pending completion of truck refactoring. Funding not yet identified.

Legend: ACE = Automated Commercial Environment; CBP = U.S. Customs and Border Protection; TFTEA = Trade Facilitation and Trade Enforcement Act of 2015, Pub. L. No. 114-125 (Feb. 24, 2016).

Source: Customs and Border Protection (CBP). | GAO-18-271

Note: The first two enhancements shown were prioritized for implementation in fiscal year 2017 but had not yet been implemented as of September 2017. The other five enhancements were prioritized for implementation in fiscal year 2018, after CBP completes implementation of key ACE activities, processes, and functions.

^aStatus as reported by CBP officials as of September 2017.

^bACE includes a capability that enables carriers of imports to the United States to submit electronic truck manifests to CBP prior to a truck's arrival at a U.S. land border crossing.

^cThe U.S. Court of International Trade, established under Article III of the Constitution, has nationwide jurisdiction over civil actions arising out of the customs and international trade laws of the United States, according to the court.

^dDrawback is the process by which an importer may be able to claim and recover most of the duties, taxes, or fees upon exportation or destruction of imported merchandise, under CBP supervision.

^eThe de minimis value level is the value of a shipment imported by one person on one day that generally may be imported free of duties and taxes, according to CBP. TFTEA included an

amendment to Section 321 of the Tariff Act of 1930, as amended (19 U.S.C. § 1321) to increase the maximum de minimis value exemption from duties and taxes from \$200 to \$800, which CBP implemented on March 10, 2016.

^fForeign-trade zones are secure areas under CBP that are generally considered outside CBP territory upon activation. Located in or near CBP ports of entry, they are the United States' version of what are known internationally as free-trade zones, according to CBP.

Accepted but unprioritized enhancements. CBP officials also provided us with a list of 22 unprioritized enhancements suggested by CBP staff and the trade community that had been presented to CBP's Product Management Committee for assessment and possible prioritization. Several of these enhancements are aimed at strengthening ACE provisions for processing agricultural imports. For example, one enhancement would improve the interface between ACE and various Department of Agriculture subsystems, reducing the need to manually enter data in multiple systems. Another enhancement would integrate the ACE agricultural workspace and CBP's Automated Targeting System, strengthening targeting for agricultural imports. The list of unprioritized enhancements also includes initiatives to simplify several import processing steps for the trade community, allowing faster processing and associated cost savings.

Process for Prioritizing Enhancements from All Sources Has Not Been Established

While CBP has a process for prioritizing enhancements suggested by its own staff or by members of the trade community (see text box), no process has been established for prioritizing enhancements suggested by partner agencies or for making priority decisions among all suggested enhancements, including those submitted by partner agencies. Enhancements suggested by partner agencies are provided to the Border Interagency Executive Council (BIEC) for prioritization.⁴³ The BIEC, which CBP chairs, was created to improve coordination among ITDS partner agencies. The BIEC's responsibilities extend to reviewing and prioritizing partner agency suggestions for enhancing ACE, according to CBP

⁴³Formally established in February 2014, the BIEC includes senior-level representatives from partner agencies with relevant border management interests or authorities. BIEC member agencies are the Departments of Agriculture, Commerce, Defense, Energy, Health and Human Services, Homeland Security, Interior, Justice, State, Transportation and Treasury; CPSC; the Nuclear Regulatory Commission; and the Environmental Protection Agency. BIEC also includes several representatives from the Executive Office of the President, including from the Office of Management and Budget. BIEC is co-chaired by CBP and vice-chaired by CPSC.

officials. However, CBP officials told us in September 2017 that the BIEC did not have explicit criteria for prioritizing partner agency suggestions and had not yet agreed on a cost-sharing strategy that would allow multiple agencies to share the cost of enhancements that might benefit those agencies.⁴⁴ In the absence of such a process, CBP has been evaluating partner agency-suggested enhancements on a first-come, first-served basis, and partner agencies requesting such enhancements are required to pay for them on a fee-for-service basis, according to CBP officials.⁴⁵

CBP's Documented Process for Prioritizing ACE Enhancements Suggested by CBP Staff or the Trade Community

- CBP policy offices consider six criteria to decide whether to accept or reject enhancements suggested by CBP and the trade community: (1) completion of technical requirements to assess the required level of effort; (2) legal and regulatory provisions; (3) overlap with, or connection to, other enhancements in development or already deployed; (4) availability of funding and contract vehicles; (5) possible burden on trade, especially on existing coding or business processes; and (6) possible burden on CBP. CBP adds accepted enhancements to a list of "unprioritized initiatives."
- CBP's Product Management Committee considers four criteria in assessing unprioritized initiatives for placement on the agency's "short list" of priorities: (1) the enhancement aligns with a CBP mission priority, (2) the enhancement meets a legislative or regulatory requirement, (3) the enhancement is associated with a security protocol or gap, and (4) funding for the enhancement is available. According to CBP officials, an affirmative response to one or more of these criteria yields a higher probability that the enhancement will be deemed a priority.
- To prepare enhancements for development and deployment, CBP estimates the level of effort required, gathers high-level requirements, and conducts impact assessments. Once planning is complete, the CBP policy office sponsoring the priority develops a business case for initiatives on the "short list" of priorities, including budget justification and information on potential benefits/return on investment.

Source: GAO analysis of U.S. Customs and Border Protection (CBP) documents. | GAO-18-271

⁴⁴For example, CPSC officials told us that the commission is currently negotiating an agreement to add two-way messaging to ACE. CPSC officials observed that this enhancement will be undertaken at CPSC's expense, although it will benefit many agencies.

⁴⁵For example, FDA provided \$33,000 to add a reporting element to ACE that will support the agency's regulatory program under the Food Safety Modernization Act, according to FDA.

Funding for ACE Development after Fiscal Year 2018 Has Not Been Identified

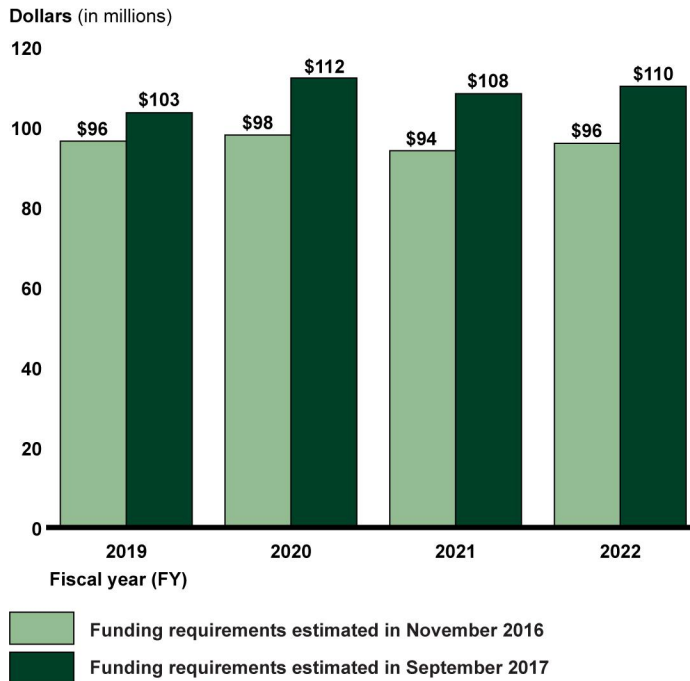
Although CBP identified funding to complete the implementation of core ACE capabilities as defined by CBP in fiscal year 2018, officials of CBP and its partner agencies stated that they have not identified funding for the continued development of ACE, including most of the enhancements that have been suggested by CBP, the trade community, or partner agencies. Through fiscal year 2017, CBP maintained separate accounts to support ACE operations and maintenance and ACE acquisitions—that is, development and deployment of new ACE capabilities.⁴⁶ According to CBP officials, the agency's ACE acquisition funds were used exclusively to develop and deploy ACE capabilities that the agency defined as core. Neither acquisition funds nor operations and maintenance funds were available for enhancements to the core system, according to the officials.

However, CBP officials told us in November 2017 that, beginning in fiscal year 2018, the agency's planned annual budgets for ACE would include funds only for operations and maintenance and would no longer include funds to support acquisitions. CBP officials stated that the agency had identified additional funding to complete core ACE capabilities, other than collections, in fiscal year 2018 and to ensure that these capabilities operate in concert with ACS, which the agency uses for collections. However, the agency had not yet identified funding for several enhancements that CBP considered near-term priorities (see table 3) or for the longer list of accepted but unprioritized enhancements suggested by CBP staff or the trade community. CBP officials estimated that supporting post-core development will require about \$7 million in additional funds in fiscal year 2019 and slightly more than \$14 million annually in additional funds in the succeeding 3 years.⁴⁷ Figure 4 summarizes CBP's anticipated ACE funding requirements for fiscal years 2019 through 2022, as identified by CBP in November 2016 and September 2017.

⁴⁶Operations and maintenance includes efforts to address "trouble tickets" submitted by ACE users. In June 2017, ACE users submitted over 10,000 trouble tickets to address a wide variety of problems, including slow response times and outages. According to CBP, nearly 98 percent of these problems were resolved.

⁴⁷Because CBP has not yet developed full information on ACE funding requirements and allocations, these numbers should be considered preliminary.

Figure 4: Estimated Annual Funding Requirements for CBP's Automated Commercial Environment, Fiscal Years 2019-2022



Source: U.S. Customs and Border Protection (CBP) documents and data. | GAO-18-271

Approach to Managing ACE after Completion of Core Capabilities Has Not Been Finalized

CBP is working with its partner agencies in the BIEC to reach agreement on an approach to managing ACE's continued development after completing the implementation of core capabilities, but this approach has not been finalized. According to CBP officials and some partner agency officials, the BIEC is seeking agreement on processes for prioritizing all suggested enhancements and for sharing the costs of maintaining and enhancing the system.

- **Process for prioritizing enhancements.** According to CBP officials, the BIEC is developing a process for prioritizing enhancements, including criteria to be applied and a governance process to guide decision making. CBP officials stated that this process would be applied to all suggested enhancements, regardless of their source.

-
- **Process for sharing costs.** According to CBP officials, the BIEC agreed in early 2016 to begin working toward consensus among CBP and its partner agencies on an approach to sharing future ACE operations and maintenance and development costs. This consensus is to include an agreement on criteria for classifying suggested enhancements as operations and maintenance or as new capabilities and on funding arrangements for both categories.⁴⁸ Additionally, the Office of Management and Budget requested the Department of Homeland Security and CBP to develop a cost-sharing framework, according to CBP.

However, the BIEC has not yet finalized a management approach to address these tasks. According to CBP, in early December 2017 the BIEC produced a document, titled “BIEC Principals Single Window Sustainment Decision Memorandum,” proposing a “sustainment model” for ACE and received partner agency comments on this document later that month. CBP did not provide us with copies of the memorandum or the partner agencies’ comments but stated that the comments covered the following areas: acceptance of a proposed definition of operations and maintenance and a “pay as you go” funding model, evaluation criteria for prioritizing suggested enhancements, and an overall process for making prioritization decisions. According to CBP officials, a draft cost-sharing and prioritization process plan was distributed to the BIEC principals and discussed in detail at a principals meeting on January 30, 2018, and work on refining and finalizing this plan is continuing. CBP officials estimated that this process would be completed by October 31, 2018.

In light of funding constraints and the need for broad interagency agreement to adopt processes such as those reportedly under discussion in the BIEC, it is unclear whether these discussions will conclude within the specified time frame or whether the sustainment model will resolve all outstanding issues in a manner satisfactory to participating agencies. For example, according to FDA and Treasury officials, some partner agencies maintain that certain improvements to ACE suggested by partner agencies should be regarded as part of the core system—traditionally supported by CBP acquisition funds—rather than treated as enhancements that must be supported by the agencies that suggest

⁴⁸According to partner agency officials, clarity on this point is needed. For example, APHIS officials stated that their agency is seeking an enhancement to allow APHIS permits to be submitted via ACE. The officials told us that APHIS believes this enhancement should be classified as maintenance, since it is a system upgrade and will not affect any business practice.

them.⁴⁹ It remains unclear how such enhancements will be categorized or funded, since CBP has indicated that it will no longer allocate funds to ACE acquisition and that operations and maintenance funds have traditionally not been used for such purposes.

The solutions to these unresolved issues will affect both CBP and its partner agencies, according to agency officials. FDA officials observed that CBP will not fund or implement additional capabilities without funding for these efforts, whether through its own budget or from partner agencies. Treasury officials observed that interagency coordination and transfers of funding are cumbersome, costly processes. FDA officials also commented that, rather than try to arrange cost sharing with other agencies that may have funding constraints, partner agencies might develop alternative systems to compensate for capabilities lacking in ACE. FDA officials observed that this could result in multiple agencies' developing separate systems to meet similar needs.

According to *Standards for Internal Control in the Federal Government*, management should establish an appropriate organizational structure and communicate effectively to achieve agency objectives.⁵⁰ In addition, key practices to enhance and sustain interagency collaboration include articulating a common outcome, establishing mutually reinforcing or joint strategies, and establishing compatible means of operating across agency boundaries.⁵¹ Until CBP, in collaboration with partner agencies, finalizes its management approach to ACE, including processes for prioritizing, and sharing costs for, critical enhancements, U.S. agencies and the trade community will not realize the system's full potential benefits.

⁴⁹For example, FDA officials cited a delayed messaging capability that they said was available in ACS but has not been implemented in ACE. Automated screening processes often result in admissibility decisions being made quickly and in advance of a shipment's physical arrival at a port. According to FDA officials, because delayed messaging has not been implemented in ACE, entry filers and importers receive advance notice of FDA's intention to examine cargo and can therefore cancel or divert the cargo to another port to avoid FDA oversight. According to FDA officials, the agency needs access to the delayed messaging capability in ACE to reduce the risk of manipulation or diversion of shipments that may endanger public health.

⁵⁰GAO, *Standards for Internal Control in the Federal Government*, [GAO-14-704G](#) (Sept. 10, 2014).

⁵¹See GAO, *Managing for Results: Key Considerations for Implementing Interagency Collaborative Mechanisms*, [GAO-12-1022](#) (Washington, D.C.: Sept. 27, 2012).

Conclusions

The need for an international trade data system to enhance U.S. agencies' efficiency and effectiveness in processing cargo and enforcing U.S. trade laws has long been clear. Indeed, information available from CBP, partner agencies, and the trade community points to savings and enforcement benefits resulting from the implemented core ACE capabilities, including faster import processing; improved targeting; and other benefits to partner agencies, the trade community, and consumers. However, realization of the full benefits of transitioning to ACE continues to be hampered by a variety of functional shortcomings'.

CBP and its partner agencies recognize the need to agree on an approach to maintaining and continuing to develop the system after core ACE is completed. While CBP recently completed deployment of most of the capabilities that it identified as core, CBP and its partner agencies in the BIEC have not yet agreed on processes for prioritizing enhancements—including those that ACE users have suggested to improve the system—and for sharing the costs of operating and enhancing the system. Until CBP, in collaboration with its partner agencies, finalizes an approach to post-core management of ACE that includes such processes, as well as time frames for implementing them, CBP, its partner agencies, and the trade community will not realize the full potential benefits of the substantial investment ACE represents.

Recommendation for Executive Action

We are making the following recommendation to DHS:

The Secretary of Homeland Security should ensure that the Commissioner of CBP, in collaboration with partner agencies, finalizes an interagency approach to the post-core management of ACE that includes (1) processes for prioritizing enhancements to ACE and for sharing ACE operations and maintenance and development costs, including the costs of suggested enhancements among partner agencies that may benefit, and (2) time frames for implementing such processes. (Recommendation 1)

Agency Comments and Our Evaluation

We provided a draft of this report to DHS; the Departments of Agriculture, Health and Human Services, the Interior, the Treasury, and Transportation; and CPSC. DHS provided substantive comments, which are reproduced in appendix III. In addition, DHS; the Departments of Health and Human Services, the Interior, Transportation, and the Treasury; and CPSC provided technical comments, which we incorporated as appropriate. The Department of Agriculture did not provide comments.

In its substantive comments, DHS concurred with our recommendation. DHS also reported that some steps toward developing an interagency approach to post-core management of ACE had been taken after we distributed our draft report for agency comment. DHS estimated that the process would be completed by the end of October 2018. We updated our report accordingly.

We are sending copies of this report to the appropriate congressional committees, the Commissioner of CBP, the Secretaries of the Departments of Agriculture, Health and Human Services, the Interior, the Treasury, and Transportation. In addition, the report is available at no charge on the GAO website at <http://www.gao.gov>.

If you or your staff have any questions about this report, please contact me at (202) 512-8612 or gianopoulosk.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 who made key contributions to this report are listed in appendix IX.



Kimberly M. Gianopoulos
Director, International Affairs and Trade

List of Committees

The Honorable Orrin Hatch

Chairman

The Honorable Ron Wyden

Ranking Member

Committee on Finance

United States Senate

The Honorable John Boozman

Chairman

The Honorable Jon Tester

Ranking Member

Committee on Appropriations

Subcommittee on Homeland Security

United States Senate

The Honorable Kevin Brady

Chairman

The Honorable Richard Neal

Ranking Member

Committee on Ways and Means

House of Representatives

The Honorable John R. Carter

Chairman

The Honorable Lucille Roybal-Allard

Ranking Member

Committee on Appropriations

Subcommittee on Homeland Security

House of Representatives

Appendix I: Objectives, Scope, and Methodology

In this report, we examine (1) the status of U.S. Customs and Border Protection's (CBP) efforts to implement core Automated Commercial Environment (ACE) capabilities since 2013, (2) CBP partner agencies' access to ACE and use of the system for import processing, (3) available information about any cost savings and trade enforcement benefits that have resulted from using ACE, and (4) the approach that will be used to manage ACE after core capabilities have been completed.

To examine CBP's efforts to implement ACE since 2013, we obtained information from CBP's Office of Information Technology and Office of Trade, which have been responsible for developing and administering ACE. CBP documents reviewed include ACE deployment schedules, acquisition decision memos, remediation plans, cost estimates, and a staff post mortem report on the ACE acquisition process. We also interviewed officials from CBP and five partner agencies regarding the ACE acquisition process since 2013: the Department of Health and Human Services' Food and Drug Administration (FDA), the Department of Transportation's National Highway Traffic Safety Administration (NHTSA), the Consumer Product Safety Commission (CPSC), the Department of Agriculture's Animal and Plant Health Inspection Service (APHIS), and the Department of the Interior's Fish and Wildlife Service (FWS). We selected these five agencies on the basis of their size (to include both large and small agencies), the degree to which they require documentation for clearing or licensing cargo, and recommendations from officials of CBP and the Department of the Treasury regarding agencies that would provide a range of experience in transitioning to ACE. We also reviewed prior GAO reports on ACE acquisition. While ACE is designed to permit management of both exports and imports, we focused on the implementation of ACE capabilities to manage imports, because CBP's efforts to complete and improve ACE functionality are currently focused primarily on import trade.¹

¹According to CBP documents, efforts to transition export commodity filings from older information technology systems into ACE were completed in May 2016, and pilot tests of export manifest submission via ACE are under way.

To examine other agencies' progress in accessing and using ACE data, we obtained summary information on ACE usage for CBP's 49 partner agencies, including information such as whether an agency had a memorandum of understanding with CBP regarding ACE access, whether it accessed trade data through ACE data and how it did so. While we collected information on all 49 partner agencies, we focused our analysis on the 22 partner agencies that CBP identified as requiring documentation for clearing or licensing cargo for import or export. To collect this information, we identified and reviewed Federal Register notices posted by the agencies. We obtained documentation on agency participation in ACE from CBP officials and from the Department of the Treasury.² We also discussed the documentation and our descriptions with CBP officials and partner agency officials. To understand how the five selected agencies used ACE, we conducted case studies that included reviewing CBP user guidance documents and documents from the respective agencies on their transitions and interviewing agency officials in Washington, D.C., and at the ports of New York and Newark.

To examine available information about actual and potential cost savings and enforcement benefits from using ACE, we obtained information on efforts by CBP, partner agencies, and companies involved in international trade to identify and measure efficiency gains and potential cost savings. The CBP documents we reviewed included listings and definitions of metrics for determining efficiency gains and CBP's method for using those to calculate potential cost savings, and also documentation of CBP's process for determining the reliability of the data and measures. In addition, we reviewed a 2015 report on CBP's ACE metrics by the DHS Office of the Inspector General, which recommended that CBP strengthen its metrics; the Inspector General subsequently closed those recommendations as implemented. On the basis of our review of the available information, we determined that CBP's metrics were sufficiently reliable for the purpose of conveying the estimated value of these efficiency gains. To understand earlier CBP estimates of potential cost savings from ACE, we reviewed a cost-benefit analysis conducted and revised by CBP during 2002-2004. We also reviewed a more recent cost benefit analysis conducted by FDA. In addition, we interviewed officials at CBP and the 5 case study partner agencies regarding information on potential cost savings and other benefits from ACE, including officials in

²The SAFE Port Act assigned responsibility for coordinating interagency participation in ITDS to the Department of the Treasury.

CBP's Office of Enforcement who discussed challenges with developing metrics to measure enforcement benefits. In addition, to obtain information on observed and potential benefits and cost savings of ACE to importers and exporters, and related companies, we interviewed representatives of these companies. We also obtained information from CBP regarding their preparations to assess the benefits of enhancements to ACE after core ACE capabilities are completed. We interviewed CBP and agency officials in Washington, D.C., and at the ports of New York, N.Y., and Newark, N.J., concerning benefits and challenges associated with using ACE. We selected these ports because they allowed us to interview CBP officials charged with processing a large volume of diverse imported goods, representing both air and sea cargo. These ports also afforded an opportunity to interview field staff representing four of our five case-study agencies (APHIS, CPSC, FDA, and FWS). We also discussed these issues with CBP officials with the agency's Center for Commercial Targeting and Analysis, each of CBP's five National Targeting and Analysis Groups, and six of the agency's 10 Centers of Excellence and Expertise (national-level CBP units responsible for processing imported goods associated with designated industry sectors), which we judgmentally selected. We also discussed these issues with 16 trade community representatives—that is, representatives of companies that buy and sell internationally traded products as well as brokers and shippers that work for and with these companies—some of whom participate in organizations that advise CBP regarding its operations. These 16 representatives included members of the Trade Support Network, a private sector group created to provide input to CBP on its business processes, including ACE; the Commercial Customs Operations Advisory Committee, a private sector group created to advise the Departments of the Treasury and Homeland Security on CBP's commercial operations; and the National Customs Brokers and Freight Forwarders Association.

To analyze the approach that will be used to manage ACE after core capabilities have been completed, we obtained information on CBP processes to identify, evaluate, and operationalize changes to enhance ACE. We also obtained information from CBP about its projected "post-core" budgetary needs. In addition, we reviewed documentation from CBP regarding interagency dialogue on post-core management of ACE and interviewed officials from CBP and other agencies to obtain their views on the challenges to be addressed and progress toward addressing them.

We conducted this performance audit from January 2017 to February 2018 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.

Appendix II: Partner Agency Participation in ACE

Table 4 provides information about participation in U.S. Customs and Border Protection's (CBP) Automated Commercial Environment (ACE) by the 22 partner agencies that CBP identified as requiring documentation to clear or license cargo. Table 5 provides information about participation in ACE by the 27 partner agencies that CBP did not identify as requiring such documentation.

Table 4: Participation in the Automated Commercial Environment (ACE) by CBP Partner Agencies That Require Documentation to Clear or License Cargo

No.	Department	Agency	ACE integration MOU with CBPa	ACE integration Document image systemb	ACE integration PGA message setc	Type of trade data obtained	ACE pilot status ^d	Examples of agency functions ^e
1.	Department of Agriculture	Agricultural Marketing Service	Est / iin use	Est / iin use	Est / iin use	Import	In progress	Inspects certain imported fresh and processed fruits, vegetables, and specialty crops to verify that they meet the same requirements as domestic products subject to certain quality and condition requirements.
						Export	N/A	Certifies that shipments of fresh apples and table grapes meet certain requirements.
2.	Department of Agriculture	Animal and Plant Health Inspection Service	Est / iin use	Est / iin use	Est / iin use	Import	Completed	Regulates the import of animals, plants, or their products; can prohibit entry of products that do not meet health or phytosanitary standards, do not have import permits from the service, or do not have certain foreign government certifications.
3.	Department of Agriculture	Food Safety and Inspection Service	Est / iin use	Est / iin use	Est / iin use	Import	Completed	Regulates the import and export of meat, poultry, and eggs.
4.	Department of Agriculture	Foreign Agricultural Service	Est / iin use	Est / iin use	—	Import	Completed	Administers tariff rate quotas and issues import licenses for sugar and dairy products.
5.	Department of Commerce	Bureau of Industry and Security	Est / iin use	—	Est / iin use	Export	N/A	Administers the Export Administration Regulations, which set forth license requirements for the export of items that have chiefly commercial uses, but could potentially be used for human rights abuses/terrorism.

Appendix II: Partner Agency Participation in ACE

No.	Department	Agency	ACE integration MOU with CBPa	ACE integration Document image systemb	ACE integration PGA message setc	Type of trade data obtained	ACE pilot status ^d	Examples of agency functions ^e
6.	Department of Commerce	National Marine Fisheries Service	Est / iin use	Est / iin use	Est / iin use	Import Export	Completed	Regulates the importation and exportation of certain fish such as swordfish, tooth fish, and tuna; uses information on imports to identify illegal importations or exportations of fish, and to assist in its investigations of illegal fishing or related violations.
7.	Department of Defense	Defense Contract Management Agency	Est / iin use	Est / iin use	—	Import	N/A	Responsible for ensuring Department of Defense federal acquisition programs (systems, supplies, and services) are delivered on time, within projected cost or price, and that they meet performance requirements; acts as customs broker for the department for goods being shipped into the United States to department activities.
8.	Department of Health and Human Services	Centers for Disease Control and Prevention	Est / iin use	Est / iin use	—	Import	Completed	Regulates imports that can potentially cause disease in humans and requires permits for disease-causing agents, biological materials, and certain animals/animal products.
9.	Department of Health and Human Services	Food and Drug Administration	Est / iin use	—	Est / iin use	Import	Completed	Regulates the importation of food, drugs, cosmetics, medical devices, biologics, tobacco, and radiation-emitting products.
10.	Department of	Fish and Wildlife	Est / iin use	—	—	Import	Suspended	Determines the admissibility and controls

Appendix II: Partner Agency Participation in ACE

No.	Department	Agency	ACE integration MOU with CBPa	ACE integration Document image systemb	ACE integration PGA message setc	Type of trade data obtained	ACE pilot status ^d	Examples of agency functions ^e
	the Interior	Service	Est / iin use	—	—	Export	Suspended	the export of most wildlife and wildlife products; issues licenses and permits to import or export wildlife and wildlife products; inspects wildlife and wildlife products to ensure proper documentation and prevent the illegal import or export of wildlife.
11.	Department of Justice	Bureau of Alcohol, Tobacco, Firearms and Explosives	Est / iin use	Est / iin use	Est / iin use	Import	Completed	Regulates importation of arms, ammunition, implements of war, destructive devices, and explosives; requires licenses and permits for the importation of some of these items.
						Export	In progress	Regulates and requires a permit for exportation of certain weapons.
12.	Department of Justice	Drug Enforcement Administration	Est / iin use	Est / iin use	Est / iin use	Import	Completed	Regulates the import of controlled substances and listed chemicals that maybe used to manufacture controlled substances; issues permits for certain controlled substances and monitors their movement.
						Export		Same as import, except for shipments leaving United States.
13.	Department of State	Bureau of Ocean and International Scientific Affairs (Office of Marine Conservation)	Est / iin use	Est / iin use	Est / iin use	Import	In progress	Provides a list to CBP and Congress of nations importing shrimp harvested in a manner that does not pose a threat to sea turtles.
14.	Department of	Directorate of	Est / iin use	Est / iin	Est / iin	Import	Completed	Controls the export and temporary import

Appendix II: Partner Agency Participation in ACE

No.	Department	Agency	ACE integration MOU with CBPa	ACE integration Document image systemb	ACE integration PGA message setc	Type of trade data obtained	ACE pilot status ^d	Examples of agency functions ^e
	State	Defense Trade Controls		use	use	Export		of defense articles and defense services covered by the U.S. Munitions List.
15.	Department of Transportation	National Highway Traffic Safety Administration	Est / iin use	Est / iin use	Est / iin use	Import	Completed	Monitors imported motor vehicles and motor vehicle equipment to ensure compliance with applicable Federal motor vehicle safety standards.
16.	Department of the Treasury	Alcohol and Tobacco Tax and Trade Bureau	Est / iin use	Est / iin use	Est / iin use	Import	Completed	Issues permits to alcohol and tobacco importers; approves labels for alcoholic beverages imported into the United States.
						Export	N/A	Monitors alcohol and tobacco exports to ensure permit, and tax requirements are being met.
17.	Department of the Treasury	Office of Foreign Assets Control	Est / iin use	—	Est / iin use	Export	N/A	Administers and enforces economic and trade sanctions; provides information to CBP for use in the ports to determine the admissibility of shipments within the Office of Foreign Asset Control's jurisdiction.
18.	Independent agency	Consumer Product Safety Commission	Est / iin use	—	—	Import	Completed	Monitors consumer products, including those being imported into the United States, to protect children and families against unreasonable risk of injury and death from thousands of types of consumer products; uses import information to determine which shipments to stop and examine, as well as to identify shipments where entry can be facilitated.

Appendix II: Partner Agency Participation in ACE

No.	Department	Agency	ACE integration MOU with CBPa	ACE integration Document image systemb	ACE integration PGA message setc	Type of trade data obtained	ACE pilot status ^d	Examples of agency functions ^e
19.	Department of Commerce	Enforcement and Compliance	Est / iin use	Est / iin use	—	Import	In progress	Administers laws involving antidumping and countervailing duties; sets duty rates and provides CBP with cash deposit and liquidation instructions on entries subject to these duties.
20.	Independent Agency	Environmental Protection Agency	Est / iin use	—	Est / iin use	Import: vehicles and engines	Completed	Performs port of entry inspections, conducts follow-up inspections of import materials at importers of record or ultimate consignees, and carries out other investigative activities for enforcement actions authorized by certain environmental statutes; regulates importation of ozone depleting substances, vehicles and engines, fuels and fuel additives subject to the Clean Air Act, pesticides and devices subject to the Federal Insecticide, Fungicide and Rodenticide Act, and chemical substances and chemical mixtures subject to the Toxic Substances Control Act.
				—	Est / iin use	Import: Toxic Substances Control Act (TSCA)	Completed	
				—	Est / iin use	Import: ozone-depleting substances	Completed	
				Est / iin use	Est / iin use	Import: pesticides	Completed	
				—	Est / iin use	Export: hazardous waste	Completed	
21.	Department of Commerce	Office of Textiles and Apparel	Est / iin use	Est / iin use	—	Import	N/A	Administers tariff rate quotas on certain worsted wool fabrics; monitors all textile trade agreements and provides economic analysis, data, and information on textiles.

Appendix II: Partner Agency Participation in ACE

No.	Department	Agency	ACE integration MOU with CBPa	ACE integration Document image systemb	ACE integration PGA message setc	Type of trade data obtained	ACE pilot statusd	Examples of agency functions ^e
22.	Independent agency	Office of the United States Trade Representative	Est / in use	Est / in use	—	Import	N/A	Responsible for developing and coordinating U.S. international trade, commodity, direct investment policy, and overseeing negotiations with other countries.

Legend: ITDS = International Trade Data System, MOU = memorandum of understanding, N/A = not applicable, PGA = partner government agency, — = not established, ● = established/in use.

Source: U.S. Customs and Border Protection (CBP) documents. | GAO-18-271

Notes: The listed agencies were identified by CBP as requiring documentation to clear or license cargo.

ITDS is a “single-window” system for electronic filing of import and export documentation to be provided through ACE.

^aIn accordance with CBP policy, agencies seeking access to ACE data must conclude an MOU with CBP, detailing the information that the agency requires and how the data will be transmitted. According to CBP officials, staff of agencies that have signed MOUs with CBP have access to ACE data elements specified in the MOUs. We did not review MOUs but relied on CBP to indicate whether agencies had or had not concluded MOUs with CBP.

^bThe ACE document image system allows trade partners to supply supporting documentation electronically as image files to CBP and partner agencies. The document imaging system integrates with the ACE Secure Data Portal, allowing authorized personnel access to images to perform coordinated reviews.

^c“PGA message set” refers to the consolidated set of data that partner government agencies have requested that ACE collect from importers, exporters, or both. The message set includes numerous data elements formerly collected through paper forms.

^d“Pilot status” refers to the status of pilots that agencies undertook to test their technical abilities to receive information from the trade community through ACE.

^eExamples of agency functions as identified by the ITDS Board of Directors report.

**Appendix II: Partner Agency Participation in
ACE**

Table 5: Participation in the Automated Commercial Environment (ACE) by CBP Partner Agencies That Do Not Require Documentation to Clear or License Cargo

No.	Department	Agency	MOU with CPBa	Document image systemb	Examples of agency functions ^c
1.	Department of Agriculture	Federal Grain Inspection Service	—	—	Provides inspection and weighing services for grain exported from the United States.
2.	Department of Commerce	Foreign Trade Zones Board	Est / iin use	—	Licenses, regulates, and monitors the activity of foreign trade zones in the United States.
3.	Department of Commerce	U.S. Census Bureau	—	Est / iin use	Collects merchandise import and export data from various sources in order to compile official statistics to be used for research, as well as transportation and infrastructure planning, among other things.
4.	Department of Defense	U.S. Army Corps of Engineers	Est / iin use	—	Uses and maintains cargo and vessel movement information to inform capital investment decisions, among other things.
5.	Department of Energy	Energy Information Administration	Est / iin use	—	Issues a wide range of weekly, monthly, and annual reports on energy production, stocks, demand, imports, exports, and prices, and prepares analyses and reports.
6.	Department of Energy	Office of Fossil Energy	—	—	Regulates natural gas imports and exports from and to the United States.
7.	Department of Energy	Office of General Counsel	Est / iin use	—	Enforces minimum efficiency standards (or maximum consumption standards) for many imported and domestic products, such as residential appliances and commercial equipment.
8.	Department of Homeland Security	Transportation Security Administration	—	—	Responsible for security relating to civil aviation, maritime, and all other modes of transportation, including transportation facilities; works in tandem with CBP and the Coast Guard on maritime transportation issues.
9.	Department of Homeland Security	United States Coast Guard	—	—	Conducts regulatory inspections in the ports, including inspecting vessels and containers that transport imported and exported cargo, including bulk items.
10.	Department of Labor	Bureau of Labor Statistics	Est / iin use	—	Generates price indices for various internationally-traded goods and services, which are used to adjust import and export trade values for inflation.

**Appendix II: Partner Agency Participation in
ACE**

No.	Department	Agency	MOU with CPBa	Document image systemb	Examples of agency functions^c
11.	Department of State	Bureau of Administration, Office of Logistics Management	—	—	Provides customs clearance and freight forwarding services for inbound and outbound property of U.S. government employees as they travel in and out of the United States; acts like a customs broker or freight forwarder responsible for filing all CBP clearance information on behalf of the returning employee.
12.	Department of State	Office of Foreign Missions	Est / iin use	—	Authorizes duty free treatment for shipments consigned to foreign missions, international organizations, and their members.
13.	Department of Transportation	Bureau of Transportation Statistics	Est / iin use	—	Collects, compiles, and publishes comprehensive monthly and annual transportation statistics covering all modes of transportation, and performs research and prepares statistics and reports on the volume and geography of international trade on the nation's transportation systems.
14.	Department of Transportation	Federal Aviation Administration	Est / iin use	—	Enforces regulations governing the transportation of hazardous materials by air.
15.	Department of Transportation	Federal Highway Administration	Est / iin use	—	Conducts research on international commodity flows and related freight transportation activities, develops analytical tools, including freight models, to measure the transportation system, and examine the relationship between freight transportation improvements and the U.S. economy.
16.	Department of Transportation	Federal Motor Carrier Safety Administration	Est / iin use	—	Enforces safety standards for commercial motor vehicles entering and operating throughout the United States.
17.	Department of Transportation	Federal Railway Administration	Est / iin use	—	Mission is to enable the safe, reliable, and efficient movement of people and goods for a strong America, now and in the future. ^d
18.	Department of Transportation	Maritime Administration	Est / iin use	—	Administers the Cargo Preference Act of 1954, which reserves a portion of U.S. government-sponsored cargo to qualified U.S.-flag privately owned commercial vessels.
19.	Department of Transportation	Pipeline Hazardous Materials Safety Administration	Est / iin use	—	Determines compliance with safety and training standards by inspecting entities that offer hazardous materials for transportation and that manufacture, requalify, rebuild, recondition, or retest packaging used to transport hazardous material.

Appendix II: Partner Agency Participation in ACE

No.	Department	Agency	MOU with CPBa	Document image systemb	Examples of agency functions ^c
20.	Department of the Treasury	Financial Crimes Enforcement Network	—	—	Aims to enhance U.S. national security, deter and detect criminal activity, and safeguard financial systems from abuse by promoting transparency in the United States and international financial systems.
21.	Independent agency	Export-Import Bank	Est / iin use	—	Facilitates the export of U.S. goods and services as the official export credit agency of the United States. ^e
22.	Independent agency	Federal Communications Commission	—	—	Prevents unauthorized radio frequency devices from entering the United States and ensures that finished products, as well as products assembled from parts shipped into the United States conform to certain standards to ensure they do not interfere with licensed radio communications.
23.	Independent agency	Federal Maritime Commission	Est / iin use	—	Registers all Ocean Transportation Intermediaries doing business at U.S. ports and issues licenses and certificates, as well as reports on maritime trading conditions.
24.	Department of the Treasury	Internal Revenue Service	Est / iin use	Est / iin use	Collects excise taxes on certain imports and on foreign trucks subject to the Heavy Highway Vehicle Use tax; monitors information reported by importers (entry summary) to ensure payment of excise taxes on goods.
25.	Independent agency	International Trade Commission	Est / iin use	—	Maintains the Harmonized Tariff Schedule of the United States Annotated and conducts research and makes determinations concerning unfair trade practices with regard to antidumping and countervailing duty investigations.
26.	Independent agency	Nuclear Regulatory Commission	Est / iin use	—	Issues import and export licenses for certain nuclear material, components, and commodities.
27.	Independent agency	U.S. Agency for International Development	—	—	Works with developing countries to implement trade agreements, facilitate trade flows, and enhance economic effectiveness. ^f

Legend: ITDS = International Trade Data System, MOU = memorandum of understanding, N/A = not applicable, — = not established, ● = established/in use.

Source: U.S. Customs and Border Protection (CBP) documents. | GAO-18-271

Notes: CBP did not identify these agencies as requiring documentation to clear or license cargo.

ITDS is a “single-window” system for the electronic filing of import and export documentation to be provided through ACE.

^aAgencies seeking access to ACE data must conclude an MOU with CBP, detailing the information that the agency requires and how the data will be transmitted, according to CBP officials. Agency officials also noted that staff of agencies that have signed MOUs with CBP have access to ACE data elements specified in the MOUs. We did not review MOUs but relied on CBP to indicate whether agencies had concluded MOUs with CBP.

**Appendix II: Partner Agency Participation in
ACE**

^bThe ACE document image system allows trade partners to supply supporting documentation electronically as image files to CBP and partner agencies. DIS integrates with the ACE Secure Data Portal, allowing authorized personnel access to images to perform coordinated reviews.

^cExamples of agency functions as identified by the ITDS Board of Directors report.””

^dThe agency was not identified or discussed in the ITDS Board of Directors Report in 2014 but was identified by CBP as an agency that uses ACE data. Agency function is according to information from the Federal Railway Administration.

^eThe agency was not identified or discussed in the ITDS Board of Directors Report in 2014 but was identified by CBP as an agency that uses ACE data. Agency function is according to information from the Export-Import Bank of the United States.

^fThe agency was not identified or discussed in the ITDS Board of Directors Report in 2014 but was identified by CBP as an agency that uses ACE data. Agency function is according to information from the Bureau of Economic Growth, Education and Environment; Office of Trade and Regulatory Reform.

Appendix III: Comments from the Department of Homeland Security

U.S. Department of Homeland Security
Washington, DC 20528



**Homeland
Security**

February 1, 2018

Kimberly M. Gianopoulos
Director, International Affairs and Trade
U.S. Government Accountability Office
441 G Street, NW
Washington, DC 20548

Re: Management's Response to Draft Report GAO-18-271, "CUSTOM AND BORDER
PROTECTION: Automated Trade Data System Yields Benefits, but Interagency
Management Approach Is Needed"

Dear Ms. Gianopoulos:

Thank you for the opportunity to review and comment on this draft report. The U.S. Department of Homeland Security (DHS) appreciates the U.S. Government Accountability Office's (GAO) work in planning and conducting its review and issuing this report.

DHS is pleased to note GAO's positive recognition of the efficiencies, reduced costs, and enhanced enforcement activities realized by the Automated Commercial Environment (ACE). During FY 2017, CBP processed more than \$2.4 trillion in imports, nearly \$1.75 trillion in exports, and collected approximately \$40.7 billion in duties, taxes, and fees. ACE is the U.S. Single Window, the primary processing system through which trade-related data required by all government agencies is submitted and processed. CBP is committed to continuing efforts to improve ACE efficiencies and partnering with its stakeholders to explore strategies that support future automation initiatives, enhancements, and process improvements.

The draft report contained one recommendation, with which DHS concurs. Attached find our detailed response to the recommendation. Technical comments were provided under a separate cover.

Again, thank you for the opportunity to review and comment on this draft report. Please feel free to contact me if you have any questions. We look forward to working with you again in the future.

Sincerely,

A handwritten signature in black ink, appearing to read "Jim H. Crumacker".

JIM H. CRUMACKER, CIA, CFE
Director
Departmental GAO-OIG Liaison Office

Attachment

**Attachment: Management Response to the Recommendations
Contained in GAO-18-271**

GAO recommended that the Secretary of Homeland Security ensure that the Commissioner of CBP in collaboration with partner agencies:

Recommendation : Finalize an interagency approach to the post-core management of ACE that includes processes for prioritizing enhancements to ACE and for sharing ACE operations and maintenance and development costs, including the costs of suggested enhancements among partner agencies that may benefit, and that also includes timeframes for implementing such processes.

Response: Concur. The CBP Office of Trade will continue to work with the Border Interagency Executive Council (BIEC) senior leadership to finalize a cost-sharing plan and prioritization process for all ACE/Single Window enhancements, including costs for Operations and Maintenance. On December 4, 2017, the BIEC Principals Single Window Sustainment Decision Memorandum was issued and on December 22, 2017, CBP received Partner Government Agency (PGA) responses to the Decision Memorandum. The PGA responses covered the following areas: Acceptance of O&M definitions, and the pay as you go model; Acceptance of evaluation criteria used to prioritize Requested for Development (RFD); and, Acceptance of the RFD prioritization Process. A draft cost sharing and prioritization process plan has been distributed to the BIEC principals for review and comment, and discussed at length on January 30, 2018, during a BIEC principals meeting. As a result of this meeting, the BIEC plan is now being refined and finalized. Estimated Completion Date : October 31, 2018.

Appendix IV: GAO Contact and Staff Acknowledgments

GAO Contact

Kimberly M. Gianopoulos, (202) 512-8612 or gianopoulosk@gao.gov

Staff Acknowledgments

In addition to the contact named above, Celia Thomas (Assistant Director), Michael McAtee (Analyst-in-Charge), Marybeth Acac, Ryan Deloughry, Philip Farah, Reid Lowe, Scott McClinton, Maria Stattel, Bryant Torres, and Alex Welsh made key contributions to this report. Neil Doherty and Justine Lazaro provided technical assistance.

Appendix V: Accessible Data

Data Tables

Data Table for Figure 3: Numbers of Unaddressed Suggested Enhancements to CBP Automated Commercial Environment, by Source, 2001-2017

Source	Number (and percentage) of unassessed suggested enhancements to CBP Automated Commercial Environment, 2001-2017
U.S. Customs and Border Protection officials	25 (11%)
Partner agencies	33 (15%)
Trade community	165 (74%)

Data Table for Figure 4: Estimated Annual Funding Requirements for CBP's Automated Commercial Environment, Fiscal Years 2019-2022

	Funding requirements estimated in November 2016	Funding requirements estimated in September 2017
2019	\$96	\$103
2020	\$98	\$112
2021	\$94	\$108
2022	\$96	\$110

Agency Comment Letter

Text of Appendix III: Comments from the Department of Homeland Security

Page 1

February 1, 2018

Kimberly M. Gianopoulos

Director, International Affairs and Trade

U.S. Government Accountability Office 441 G Street, NW

Washington, DC 20548

U.S. Department of Homeland Security Washington, DC 20528

Homeland Security

Re: Management's Response to Draft Report GAO-18-271, "CUSTOM AND BORDER PROTECTION: Automated Trade Data System Yields Benefits, but Interagency Management Approach Is Needed"

Dear Ms. Gianopoulos:

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The draft report contained one recommendation, with which DHS concurs. Attached find our detailed response to the recommendation. Technical comments were provided under a separate cover.

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Jim Crumpacker

Director

Departmental GAO-OIG Liaison Office

Page 2

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Response: Concur.

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