



Office of Inspector General | United States Postal Service

Management Alert

International Export Package Advanced Electronic Data

Report Number 21-266-R22 | December 2, 2021



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Transmittal Letter



OFFICE OF INSPECTOR GENERAL
UNITED STATES POSTAL SERVICE

December 2, 2021

MEMORANDUM FOR: MIKE L. BARBER
VICE PRESIDENT, PROCESSING AND MAINTENANCE
OPERATIONS

A handwritten signature in black ink, reading "Amanda H. Stafford", is positioned above the printed name of the sender.

FROM: Amanda H. Stafford
Deputy Assistant Inspector General
for Retail, Delivery and Marketing

SUBJECT: Management Alert – International Export Package Advanced
Electronic Data (Report Number 21-266-R22)

This management alert presents issues identified in International Export Package Advanced Electronic Data (Project Number 21-266). These issues came to our attention during our ongoing audit of International Mail Operations and Performance Data project (Project Number 21-197). The objective of this management alert is to provide U.S. Postal Service officials immediate notification of the issues identified during our ongoing audit.

We appreciate the cooperation and courtesies provided by your staff. If you have questions or need additional information, please contact Janet Sorenson, Director, Sales, Marketing, and International, or me at 703-248-2100.

Attachment

cc: Postmaster General
Corporate Audit Response Management

Results

Introduction

While conducting fieldwork for our *International Mail Operations and Performance Data* project (Project Number 21-197), we found significant operational delays of international outbound (export) packages. The purpose of this management alert is to bring these issues to your attention.

We identified these issues while conducting our performance audit in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objective. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objective. We conducted observations at the Chicago, New York, San Francisco, and Miami International Service Centers (ISC) between June and September 2021 and met with officials at the Los Angeles ISC and U.S. Postal Service Headquarters.¹ We discussed our observations and conclusions with management on November 9, 2021, and included their comments where appropriate.

Background

The Postal Service, as a major international postal organization, has key responsibilities related to the collection and exchange of advance electronic data (AED)² for international packages. These responsibilities were further clarified when Congress passed the Synthetics Trafficking and Overdose Prevention

(STOP) Act of 2018 to help stem the flow of opioids shipped to the U.S. through the mail.³ The law requires – with some exceptions – that all postal packages entering the U.S. have AED. The Postal Service, in accordance with internal policies and guidelines, has applied STOP Act provisions to export mail. This alert focuses on the collection and review of export packages as well as the item-level AED⁴ that is to accompany these packages prior to Postal Service processing. Specific export AED requirements include tracking number, sender, recipient, and package information.⁵

The Postal Service previously collected AED for export packages tendered by customers at various retail channels, including post offices, contract stations, or its Click-N-Ship, Customs Form Online, and Global Systems Software platforms. In early 2021, the Postal Service more stringently enforced standards related to the sufficiency⁶ of this data to correspond with growing scrutiny of package data for international shipments. In early August 2021, the Postal Service also began enforcing AED requirements for export packages from bulk commercial mailers. These requirements were phased in to allow more transition time for coordination between the Postal Service and commercial mailers.

The Postal Service made technical and operational adjustments in support of its role in (a) assessing the sufficiency of AED for export package and (b) ensuring the handling of packages identified as having insufficient AED. These adjustments support the multiple ways in which customers can tender packages to the Postal Service (e.g., entered at the retail counter or through commercial

1 We conducted onsite observations at the Chicago ISC on May 20 and 27, June 10, July 6, 19, and 27, August 11 and September 10; at the New York ISC on June 21-23; at the Miami ISC on August 9-11; and at the San Francisco ISC on September 27-30.

2 AED encompasses two key types: (1) item-level message (ITMATT), which is package specific information such as sender, receiver, and the items being sent, including their weight and value and (2) dispatch-level message (PREDES), which contains information about the receptacle in which the individual packages reside.

3 Pub. L. No. 115-271, §8003(a)(1), 132 Stat. 4075.

4 All references to “AED” throughout this report reference package-level (i.e., item-level or ITMATT) AED for export compliance purposes unless otherwise noted.

5 Commercial mailers are also required to provide receptacle information. The AED elements pertaining to sender, recipient, and package information can include multiple data fields. For example, sender information should include first and last name and complete street, city, state, and ZIP Code and country code and package information should include postage paid and package weight, quantity, and description.

6 “Insufficient AED” can arise from various sources including missing manifest, missing or incomplete data, or incorrectly completed data.

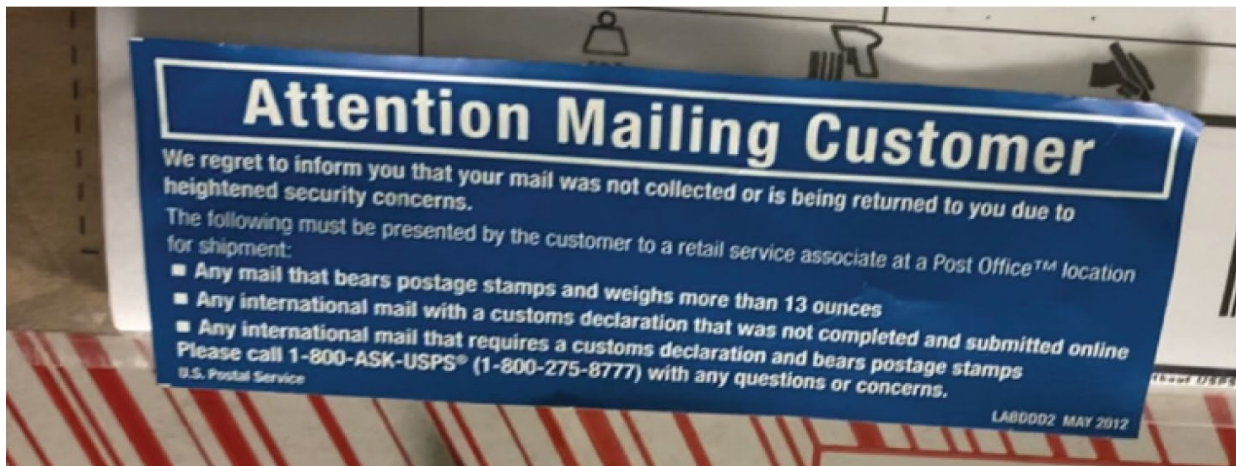
channels); how package data is captured (e.g., electronically transmitted by the mailer or entered by Postal Service staff); and other package attributes (e.g., machinable or nonmachinable).⁷ See sidebar for examples.

Postal Service officials stated that they took action to bolster communications with key internal and external stakeholders regarding these operational adjustments and increased AED scrutiny. These actions included having regular, periodic meetings with export mailers, operations staff, and leadership to discuss export compliance performance and issues.

Postal Service policy states that employees are required to refuse shipments lacking sufficient AED and return these packages to the sender. These rejections could occur at various points throughout the network including the retail counter, ISC, or other entry points, and can apply to individual packages or to an entire receptacle.⁸ The following are examples of labeling used to denote insufficient AED:

- Figure 1 shows a label affixed to an individual package (entered originally via the retail network) that will be returned to sender.

Figure 1. Label Placed on Package Returned to Sender Due to Insufficient AED



Source: U.S. Postal Service Office of Inspector General (OIG) staff photograph of Postal Service label taken at the Chicago ISC on July 19, 2021.

EXPORT PACKAGE AED EXAMPLES

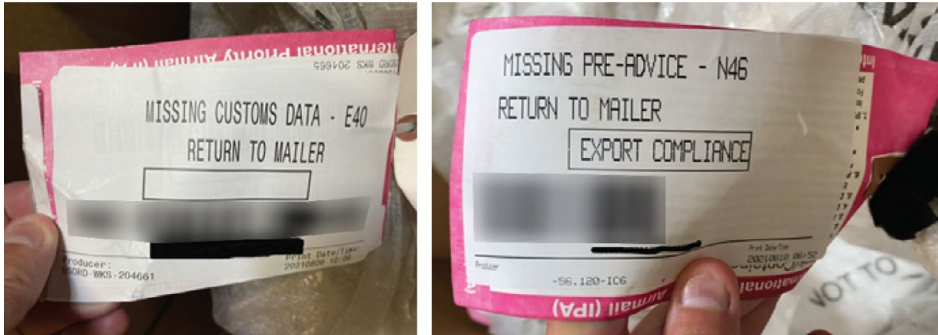
- When an individual package is tendered by a customer at a Postal Service retail counter with a handwritten Customs Declaration and Dispatch Note (PS Form 2976-R), retail sales and service associates review the specific package (item) data and electronically records it in a corresponding retail system.
- When an individual package is tendered to the Postal Service using a separate retail channel (e.g., carrier pick up or customer drop off, often using PC Postage), AED will typically be reviewed during the package's acceptance scan at the respective ISC. These scans either occur while a package is being run on automated equipment (for machinable packages) or when performed by individual staff (for nonmachinable packages).
- When packages are entered through commercial channels – which typically encompasses multiple packages within a receptacle – AED for each package is recorded on a mailer-provided manifest that is linked to the particular receptacle label. Postal Service staff scan the receptacle label upon acceptance at the ISC.

⁷ Nonmachinable packages are unable to be processed on Postal Service package sorting equipment for reasons including size, weight, or shape.

⁸ Receptacles include all types of bags, sacks, trays, gaylords, or any other containers.

- Figure 2 features labels that can be affixed to a sack (entered originally via the commercial network) that contain a package(s) with insufficient AED.

Figure 2. Examples of Labels Indicating a Sack (Entered Via Commercial Entry) Has Insufficient AED



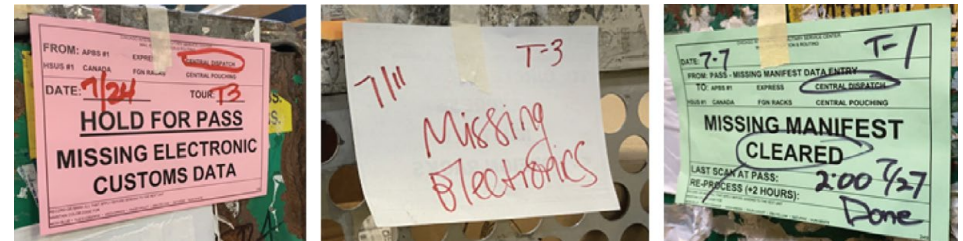
Source: OIG staff photographs taken at the Chicago ISC on August 11, 2021.

Operational Issue #1: Export Packages Missing AED

Operations were significantly challenged at the Postal Service's five ISCs due to a large number of export packages identified as having insufficient AED. Postal Service data showed nearly 2.9 million pieces with missing AED between January and August 2021.⁹ Further analysis specifically focused on machinable packages entered via retail channels showed over 965,000 of these packages as having insufficient AED during this time.¹⁰

The magnitude of these challenges shown in Postal Service data was consistent with our observations at the Chicago, Miami, and San Francisco ISCs where we saw multiple containers filled with packages identified as having insufficient AED. For example, during our observations in July 2021, the Chicago ISC had over 400 containers (approximately 10,000 export packages¹¹) on site with insufficient AED. Figure 3 shows examples of container placards that indicated the packages within had insufficient AED.

Figure 3. Examples of Insufficient AED-Related Container Placards



Source: OIG staff photographs of container placards labels taken at the Chicago ISC on July 27, 2021.

Postal Service management stated that the majority of these packages were entered through retail channels using pre-printed PC Postage labels (with barcodes). These packages were identified as having insufficient AED due to a technical issue between the AED embedded in the respective package barcodes and the standard by which the Postal Service scan equipment was determining AED sufficiency. Specifically, the Postal Service's PC Postage system would allow the creation of a mailing label with only a single character entered in the "name" field; the package would then be entered into the Postal Service network with this label (see examples in Figure 4). However, when the package barcode was scanned during acceptance operations at a respective ISC, the machine would reject the package for insufficient AED if there were not two or more characters in the name field. Neither the PC Postage provider nor the Postal Service's systems contained business rules that prohibited the printing of postage labels or the induction of packages with insufficient AED. Postal Service officials stated the corresponding business rules have been updated and resolved this issue.

⁹ Postal Service data showed 2.9 million pieces that failed to meet designated item-level (ITMATT) data requirements and 5.2 million pieces that failed to meet designated receptacle-level (PREDES) data requirements.

¹⁰ This estimate was generated using the Postal Service's Web End-of-Run report for the Automated Parcel Bundle Sorter at each ISC which tracks the number of machinable packages rejected for having insufficient AED.

¹¹ We used a conversion factor estimate of 25 packages per container as they were primarily larger (oversized, nonmachinable) packages.

Figure 4. PC Postage Label Example That Previously Returned Insufficient AED

F R O M	1-123-456-7890 MID: 123456789		CP72-CUSTOMS DECLARATION		P	PRIORITY MAIL INTERNATIONAL U.S. POSTAGE PAID NEW YORK, NY PERMIT NO. 1	
	Jane Doe ABC Company 100 Main Street Washington, DC 20260		Origin Post: US POSTAL SERVICE	Date of Mailing: 10/12/2021			
			Importer's reference:				
			Importer's contact:				
Detailed description of contents		Qty	Net Weight (lbs/oz)	Value (US\$)	HS Tariff Number	Origin Country	Insured Value: \$
Men's cotton T-shirt		1	1 2	25.00	6109.10.0019	US	SDR Value: \$
							Insured Fee: \$
							Postal charges/ Fees: \$
Category of items:		TOTAL	1 2	25.00	I certify the particulars given in this customs declaration are correct. This form does not contain any undeclared dangerous articles, or articles prohibited by legislation or by postal or customs regulations. I have met all applicable export filing requirements under federal law and regulations.		
Exporter's reference:	Exporter's contact:	Total Dimensions: L: W: H:					
AES/ITN/Exemption		Invoice/License/Certificate No(s)		Sender's Signature and Date			
				Return to Sender Instructions in case of nondelivery:			
T O	2-345-678-9012						
	J Smith 63 Renmin Lu, Qingdao Shi 266033 Shandong CHINA						
				CM 123 456 785 US			

PS Form 2976-A (March 2015) US not duplicate this form without USPS approval This form may be opened only by

Source: OIG example.

On the commercial entry side, Postal Service management noted that some bulk sacks (sacks containing multiple export packages) occasionally showed insufficient AED when scanned at the ISC. Postal Service staff subsequently reviewed the related data, mailer files, and handling of these mailings and found these mailings often contained sufficient AED. Upon a more in-depth review, Postal Service Information Technology staff determined certain mailer files (particularly in instances where multiple files were received at the same time) were moved to a separate error file¹² – an action that prevented the Postal Service acceptance system from recognizing the mailer file. This filing issue then facilitated incorrect AED results – the scan would mistakenly show insufficient AED based on lack of data (as the file was in a different location).

¹² Postal Service officials stated these files were moved to an error table by design to prevent database failures.

¹³ The Postal Service's peak season lasts about eight weeks starting on or around Thanksgiving Day in late November and ending on or around Martin Luther King Jr. Day in mid-January.

Postal Service officials stated this filing issue has since been resolved through modifications to the underlying information technology systems.

The AED-related identification issues – the flawed business rules for packages entered via the retail network and system filing glitches for packages entered via the commercial network – posed challenges to acceptance operations at the ISCs. The Postal Service incurred additional costs and workhours related to analyzing these issues; staging, handling, and processing these affected pieces; and determining and implementing corrective actions. Further action is still needed to mitigate the number of packages with insufficient AED. The Postal Service continues to work with commercial mailers to identify packages with insufficient AED before being transported to Postal Service processing facilities. With peak season¹³ it will be important that the Postal Service continues to coordinate with key stakeholders to reduce the number of export packages arriving at the ISCs with insufficient AED. This should include promoting system integration with commercial mailers to help facilitate more timely and efficient AED analysis during export package labeling and preparation.

Operational Issue #2: Processing Delays

We also found significant processing delays of some export packages identified with insufficient AED. During visits at the Chicago ISC on July 19 and 27, August 11, and September 10, and Miami ISC on August 11, 2021, we collected tracking identifications (ID) from 43 judgmentally selected packages from inside containers with placards indicating insufficient AED. We then entered those package IDs into the Postal Service's Product Tracking and Reporting (PTR) tool and analyzed the various scan events for each package to determine the length of time the package had been awaiting further processing at the ISC.

We found that some export packages, rejected due to insufficient AED, were at the respective ISCs for several months, with the longest being 106 days. [Table 1](#) shows data for packages delayed by more than 30 days. These packages were originally tendered by customers at various points throughout the Postal Service's retail network.

Table 1. Processing Times for Select International Outbound Packages Initially Rejected Due to Insufficient AED (Packages Over 30 Days)

Package ID	Time and Date of Earliest Event at the ISC*	Time and Date of Last Scan Event at the ISC**	Days Between Earliest and Last Events at the ISC
██████████	5/4/21 4:25 PM	8/18/21 6:46 AM	106
██████████	4/21/21 2:54 PM	7/29/21 7:08 AM	99
██████████	6/19/21 11:38 AM	8/18/21 4:50 AM	60
██████████	6/4/21 10:53 AM	7/31/21 6:29 PM	57
██████████	6/22/21 7:47 AM	8/15/21 6:37 AM	54
██████████	7/1/21 2:21 PM	8/18/21 10:04 AM	48
██████████	6/30/21 8:52 PM	8/17/21 6:23 AM	47
██████████	6/30/21 12:09 PM	8/12/21 11:29 AM	43
██████████	7/8/21 4:09 PM	8/17/21 4:54 PM	40
██████████	7/2/21 1:47 PM	8/5/21 6:00 PM	34
██████████	7/13/21 8:21 PM	8/16/21 10:39 AM	34
██████████	7/13/21 8:22 PM	8/15/21 5:29 AM	32

Source: OIG analysis of packages at the Chicago ISC on July 19 and 27, August 11, and September 10, and Miami ISC on August 11, 2021.

* The earliest record of when the package was at the ISC. The time and date show the earliest of the following: (a) the first PTR system scan event at the ISC – such as the Arrival at ISC; Customs Clearance, or Enroute/Processing event or (b) when the package was observed by the OIG staff on site.

** The latest record of when the package was at the ISC. The respective time and date show the latest PTR scan event at the ISC – such as the Enroute/Processed, Customs Clearance, International Dispatch Ready, Out of Customs, or Arrival at ISC.

Postal Service officials acknowledged these issues and mainly attributed delays to a procedural shift in the expected handling of these packages. Postal Service

leadership pivoted away from existing policy – which stipulated export packages with insufficient AED entered through retail channels should be returned to sender – to interim procedures that attempted to correct and/or resolve individual package AED issues. This procedural shift was predicated on the importance of being able to promote customer service through the processing and delivery of these packages rather than returning them to the sender(s).

While the interim procedures helped address uncertainties and inconsistencies throughout the ISCs regarding the handling of these packages (returned vs. processed), they introduced a new set of challenges which necessitated corresponding operational, technical system, and policy updates. For example, under the interim procedures, the information for packages deemed to have insufficient AED are identified and attempted to be reprocessed a second time. Those packages still deemed to have insufficient AED packages are sent to the Passive Adaptive Scanning System (PASS) where an image is sent to Postal Service staff at one of three Remote Encoding Centers¹⁴ (REC) to correct and/or resolve the issue. After PASS and REC actions, the Postal Service then attempts to re-run the packages on the automated sorting equipment or manually input the data. As a last resort, the package would be returned to the sender.

The Postal Service also had technical issues associated with linking data and messaging across various systems (e.g., PTR and Global Business System). We also observed instances at the Chicago ISC where initial processing delays caused additional problems as AED aged out of Postal Service system in 45 days. In these cases, Postal Service staff had to manually re-enter in data for all the packages that sat at the facility for more than 45 days (170 containers or about 4,250 packages¹⁵ in an early August visit). The Postal Service incurred additional costs and workhours to facilitate the supplementary operational and technical adjustments needed to process these packages, instead of returning them to the senders.

The Postal Service began to take corrective actions in this area. For those packages entered via retail channels determined to have insufficient AED, the Postal Service clarified when items should be processed or returned to sender. For commercially entered mailings, the Postal Service issued Standard Operating Procedures (SOP) for the handling and processing of mailings identified with

¹⁴ This additional effort may entail examining if the insufficient/missing AED is available in other parts of the package's information or data, and then entering it as such on the electronic record.

¹⁵ We used a conversion factor estimate of 25 packages per container as these were primarily larger (oversized, nonmachinable) packages.

insufficient AED (either package-level ITMATT or receptacle-level PREDES) in late July 2021. The SOPs prescribed various steps operational staff at the ISCs and Business Mail Entry Units should take when AED shortcomings are identified, which include contacting the mailer or returning the receptacle. Management has subsequently updated these SOPs based on their monitoring of operations, data, and performance. The Postal Service is also continuing to improve other aspects related to the timely handling of export packages identified as having insufficient AED including the following:

- *Operational* – developing procedures for more efficient handling and processing of nonmachinable packages.
- *Technical* – promoting system integration to ensure AED is being effectively transmitted through various Postal Service operational and tracking systems.
- *Customer Service* – developing more up-to-date labelling and/or messaging when notifying customers their packages are being returned due to insufficient AED.

Conclusion

With peak season it will be valuable for the Postal Service to continue efforts to promote more consistent and efficient processing of export packages. This could include coordinating with key stakeholders such as retail and commercial customers, PC Postage providers, and retail staff on efforts to reduce the number of export packages arriving at the ISCs with insufficient AED. More specifically, the Postal Service should continue to examine opportunities to leverage system integration with commercial mailers to assess AED sufficiency when preparing packages at the mailer's facility.

We are continuing our review of international operations, scanning data, and package messaging as part of the fieldwork for our *International Mail Operations and Performance Data* project (Project Number 21-197), where we will continue to monitor international operations and performance.

Management's Comments

Management agreed with the report findings. Management stated they moved expeditiously to correct issues contributing to the rejection of international export volumes including communicating with mailers as well as discovering and resolving various Postal Service system issues. Management stated these corrective actions were supported by close communications with ISC staff and coordination with the International Processing Operations, Systems Compliance, and Trade Policy groups.

See [Appendix A](#) for management's comments in their entirety.

Evaluation of Management's Comments

The OIG considers management's comments responsive to the findings.

Appendix A: Management's Comments

MIKE L. BARBER
VICE PRESIDENT
PROCESSING AND MAINTENANCE OPERATIONS



November 29, 2021

JOSEPH WOLSKI
DIRECTOR, AUDIT OPERATIONS

SUBJECT: Management Response: International Export Package Advanced Electronic Data (Report Number 21-266-DRAFT)

Thank you for providing the Postal Service with an opportunity to review and comment on the findings contained in the draft audit report, *International Export Package Advanced Electronic Data*.

Management generally agrees with the two operational issues stated in the report.

The United States Postal Service expeditiously corrected the following issues which were contributing to the rejecting of international export volumes:

- There were meetings with international Mailers Advisory Group (IMAG) to communicate with mailers requirements with all systems: Product Tracking and Reporting (PTR), Electronic Manifest Central Database (EMCDB), and Customs Border Protection Manifest (CBPMAN).
- Below pertains to USPS systems issues discovered – workaround and fixes:
 - GBS (Global Business Systems) identified and corrected a data transfer issue on 8/1/21 (N48 code)
 - PTR error for S-10 barcode - the tax and duty chargeback to Canada – fix on 8/28/21 (E40 code)
 - Some Global Shipping Software (GSS) customers not receiving Confirmation Error and Warning (CEW) reports – workaround and fix (date to be determined)
 - Error in EMCDB (data files from PTR go wrongly into the error folder) – workaround hold for 18 hours at International Service Center (ISCs) and fix is scheduled for 9/12/21 (E40 code)

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WWW.USPS.GOV

- PTR had a processing failure around September 5, 2021 – fixed on September 9, 2021 (E40 code)
- On 9/16/21 was discovered that ODC (Outbound Data Concentrator) was not picking up new outcomes from EMCDB (codes would still pop up at ISCs after receptacles were cleared) - Resolved
- On 9/22/21 – data outage for five hours in PTR causing wrongly E40 codes and backlog - Resolved
- On 9/24/21 it was discovered that EMCDB has a business rule that would wrongly flag receptacles with E40 for destination country code mismatch and/ or product code mismatch (although data was sent by the mailer to USPS) – Fixed on 10/8/21
- On 10/12/21 an outage led to a delay of loading files into EMCDB. These outages may have created missing Advance Electronic Data (AED) or E40 outcomes during processing. [REDACTED] informed ISCs/ Bulk Mail Entry Unit (BMEUs) to hold receptacles until the reconciliation was done so that volumes weren't returned to mailer with inadvertent export compliance failure. The issue was resolved on 10/13/21, but there was backlog at the ISCs.
- PTR has seen a second occurrence of a problem extracting shipping services file data to EMCDB. This problem was initially logged in INC000004600932. The most recent failure occurred on 10/14/21. PTR is working on two things:
 - 1) A data repair to extract the failed shipping services data to send to EMCDB.
 - 2) A modification to the way PTR prepares EMCDB Manifest Extract files has been made. PTR will now extract up to three files by efile partition key range for each 15-minute increment. This change to the way we create the extract files will correct the problem. The code change testing started on 10/25/21. An end to end test is also being planned so that EMCDB can confirm that the changes do not have any negative impact. Deploy was scheduled for Saturday, November 6, 2021.
- Data files are not transmitted from PTR to EMCDB - on 11/10/21, PTR has reported that as of 12:45PM Central Time, files were not transmitted to EMCDB. At 16:08PM, same day, the issue was fixed.

- 3 -

Close communications with the ISCs were followed throughout these issues and support was provided by International Processing Operations, Systems Compliance, and Trade Policy groups that allowed for the swift resolutions outlined in our response.


Mike L. Barber

cc: *Manager, Corporate Audit Response Management*

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