

OFFICE OF INSPECTOR GENERAL UNITED STATES POSTAL SERVICE

# Survey of System Users of the Global Positioning System for Highway Contract Routes

# **Management Advisory Report**

Report Number NL-MA-12-001

August 14, 2012

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OFFICE OF INSPECTOR GENERAL UNITED STATES POSTAL SERVICE

HIGHLIGHTS

Survey of System Users of the Global Positioning System for Highway Contract Routes

Report Number NL-MA-12-001

### **BACKGROUND**:

This management advisory presents the results of our survey of U.S. Postal Service field personnel with authorized access to the global positioning system (GPS) Highway Contract Route (HCR) Tracking Module.

The Postal Service initiated a GPS program for selected contracted HCRs in November 2010 to have visibility of mail during transport between its origin and destination. The GPS program required that selected "long-haul" HCRs (routes of 50 miles or more) provide certain tracking information every 30 minutes while transporting mail. As of April 2012, about 960 HCRs were included in the program. Our objective was to obtain information from Postal Service users on the effectiveness of the GPS tracking data and its uses to monitor HCR compliance and route performance.

#### WHAT THE OIG FOUND:

Our survey found that about 93 percent of authorized users in the field do not use the system to track mail, which was the primary intention of the GPS program. Additionally, only about 10 percent replied that they used HCR tracking data to assess supplier performance. Respondents further indicated that they did not receive adequate training or communication on their defined roles and responsibilities. In addition, several respondents remarked that the HCR Tracking Module could potentially be a useful tool. However, due to difficulty in obtaining accurate and complete data, it is not being used for ongoing monitoring and tracking and for ensuring compliance.

#### WHAT THE OIG RECOMMENDED:

Since our intent is to communicate survey results to provide Postal Service management with the insights, comments, and concerns of the system's users, we are not making recommendations for corrective action. However, we have related ongoing audit work and will be issuing a report addressing issues and opportunities for enhancing the GPS for HCRs.

Link to review the entire report

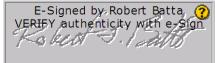


August 14, 2012

#### MEMORANDUM FOR: DAVID E. WILLIAMS VICE PRESIDENT, NETWORK OPERATIONS

SUSAN M. BROWNELL VICE PRESIDENT, SUPPLY MANAGEMENT

JOSEPH CORBETT ACTING CHIEF INFORMATION OFFICER AND EXECUTIVE VICE PRESIDENT



FROM:

Robert J. Batta Deputy Assistant Inspector General for Mission Operations

SUBJECT:Management Advisory Report – Survey of System Users of<br/>the Global Positioning System for Highway Contract Routes<br/>(Report Number NL-MA-12-001)

This report presents the results of our Survey of System Users of the Global Positioning System for Highway Contract Routes (Project Number 12XG015NL001).

We appreciate the time the U.S. Postal Service system users in the field took to complete our survey and found their comments and opinions to be of significant value. If you have any questions or need additional information, please contact Jody Troxclair, director, Transportation, or me at 703-248-2100.

Attachments

cc: Megan Brennan John T. Edgar Cynthia Mallonee Dwight Young Susan A. Witt Corporate Audit and Response Management

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#### Introduction

This report presents the results of our Survey of System Users of the Global Positioning System for Highway Contract Routes (Project Number 12XG015NL001). Our objective was to obtain information on the effectiveness of tracking data from U.S. Postal Service users in the field and how they use it to monitor Highway Contract Route (HCR) supplier compliance and route performance. This self-initiated review addresses operational risk. See Appendix A for additional information about this survey.

The Postal Service's transportation network includes nationwide transportation between cities and major facilities. The Postal Service typically uses privately contracted HCRs for this purpose. Individual Postal Service areas typically control HCRs and Postal Service transportation managers at the area and local levels are responsible for continually reviewing these routes to balance on-time service standards with costs. There were over 15,500 HCRs in fiscal year (FY) 2011, traveling about 1.6 billion miles at a cost of over \$3.3 billion.

The Postal Service initiated a Global Positioning System (GPS) program for selected HCRs in November 2010 in order to have visibility of mail during transport. Under this GPS mandate, selected "long-haul" HCRs (routes traveling 50 miles or more) were required to provide certain GPS tracking information every 30 minutes while hauling mail. The required GPS tracking data was limited and included the supplier's name, route number, trip number, location, origin or destination facility, action (status), date and time. About 960 routes are currently included under the GPS mandate.<sup>1</sup> The GPS tracking data is maintained by the Postal Service in the HCR Tracking Module, is part of the Logistics Condition Reporting System (LCRS), which we refer to as the system in this report. A Postal Service contractor provides support services for the HCR Tracking Module, which is located in Eagan, MN.

#### Conclusion

Postal Service field employees with "authorized access" to the HCR Tracking Module indicated they have generally not used the system. However, several respondents commented that if the system were enhanced and they were given effective guidance and training, it would serve to be a useful tool for having visibility and in performing their duties. Survey results indicated that 93 percent of respondents with authorized access do not use the tracking data to monitor the movement of mail and only 10 percent replied that HCR tracking data was used to address supplier performance. More significant is that respondents provided additional comments indicating their dissatisfaction with the system and problems with using the system as intended.

<sup>&</sup>lt;sup>1</sup> The 963 active GPS routes as of April 24, 2012, were extracted from the HCR Tracking Module. This number fluctuates on a month-to-month basis based on operational changes due to consolidations and adjustments, termination of routes and peak season.

Appendix B presents the actual survey results with graphic illustrations of the authorized field users in its entirety. Survey results cover system access, report usage, functionality of GPS data, supplier performance, tracking of mail, and monitoring supplier compliance. Additionally, Appendix C presents the authorized users' additional relevant comments to the HCR Tracking Module survey. These questions address reliance on GPS data fields from the HCR Tracking Module used for non-compliance incidents, feedback from suppliers, and additional general comments pertaining to the system itself.

This report is intended to communicate the results of our electronic survey of the 245 authorized users of the HCR Tracking Module. Accordingly, we are not making formal recommendations for implementation or corrective actions. However, our survey results provide insight and user concerns. Postal Service management may want to consider these results when deciding how to effectively manage its HCR GPS program. We have related ongoing audit work and will be issuing a report addressing issues and opportunities for enhancing the GPS for HCRs.

#### **User Survey Results**

In order to assess how the Postal Service is using HCR Tracking Module data and reports, we conducted a survey of 245 field personnel with access to the HCR Tracking Module.<sup>2</sup> Of the 245 survey questionnaires sent to authorized users, we received 114 responses (or about 46 percent). Included among the respondents were 102 who participated via the online survey and 12 respondents who responded via email that their responsibilities had changed and they no longer had access to the HCR Tracking Module.

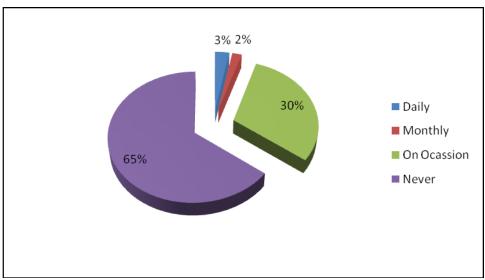
User responses gave the HCR Tracking Module an overall negative rating (see Appendix C for a complete list of authorized users' additional relevant comments to the survey). Responses in both categories shown below indicated that most individuals are not accessing or using the system's data and reports in day-to-day operations, or decision-making processes, specifically in the areas of monitoring, tracking, and compliance. The most prominent issues highlighted by the 102 online survey responses were:

<u>Access and Use</u>. Survey results indicated that very few respondents are regularly accessing the HCR Tracking Module and using its reports. Users reported they did not use the system and those who did attempt to use it had difficulties and could not gain access to their specific data. Responses indicated very limited training and guidance on how to use the system.

<sup>&</sup>lt;sup>2</sup> These were the identified "authorized users" for the HCR Tracking Module in the field

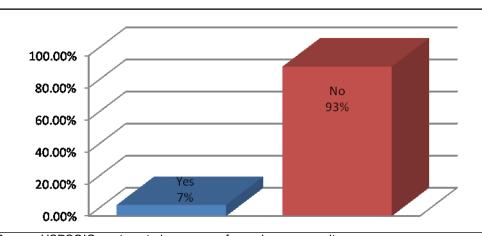
#### Survey of System Users of the Global Positioning System for Highway Contract Routes

While 51 percent stated they have, at some time, accessed the HCR Tracking Module, only 5 percent reported accessing it daily or monthly, with the remaining 95 percent reporting they log into the HCR Tracking Module on occasion or never (see Figure 1).





Survey results for report use from the HCR Tracking Module indicated that 93 percent of respondents do not use any of the HCR Tracking Module reports<sup>4</sup> (see Figure 2).



#### Figure 2: Report Usage

Source: USPSOIG - automated summary of users' survey results

Source: USPSOIG - automated summary of users' survey results

<sup>&</sup>lt;sup>3</sup> The source for all graphics is the OIG's analysis of the survey results.

<sup>&</sup>lt;sup>4</sup> The Postal Service approved six standard reports for enhancing the visibility of mail while in-transit and manage the GPS program: Current Trips Report, Past Trips Report, Supplier Performance Report, Facility Performance, Key Performance Indicators, and Compliance Report.

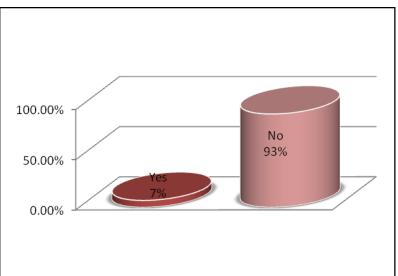
While some respondents remarked that system information could be useful in determining estimated time of arrival (ETA) or tracking the location of a particular trailer on a given route, there were comments expressing concerns with system access and use.

For example:

- "The system does not work most of my GPS routes do not show up in the system."
- "I could never get accurate information."
- "I have not used this tracking system beyond the first live inquiry."
- "We were told to get access but no guidance ever came out on the system."
- "I have not been trained nor have I accessed the system."

<u>Monitoring, Tracking and Compliance</u>. The opinions from the respondents on monitoring, tracking, and compliance was that they have not used the system to address supplier performance and identified that the system is not reliable.

- 91 percent of respondents feel this is not an effective tool in monitoring and negotiating with suppliers.
- 90 percent of respondents indicated supplier performance is not addressed by reports from the HCR Tracking Module.
- 93 percent of respondents reported they do not use the system to track mail, which was the primary intention of the program (see Figure 3).



### Figure 3: Used System to Track Mail

Source: USPSOIG - automated summary of users' survey results

Some respondents indicated that the HCR Tracking Module could potentially be a good tool but, due to inaccuracies, difficulty in obtaining the proper data and insufficient training, it is not being used as it was intended. Some specific comments included:

- "Very useful tool when working properly, improvements seen in the past 2 years."
- "This system does not bring up data for my routes. Could be that more training is in order."
- "I mainly use this for an estimate for on time or late routes. I have not found the accuracy for all trips to be 100% reliable."
- "All inquiries made on LCRS are returned with a message saying no records are found. Origin and destination selections are limited and do not include all of our service points. I often cannot find routes until I already know they have arrived. Suppliers have been frustrated with the system."
- "The problem is I get no data when I access the system. If I was able to get data, it would be very useful."

### Appendix A: Additional Information

#### Background

The Postal Service's transportation network includes nationwide transportation between cities and major facilities. The Postal Service typically uses privately contracted transportation for this purpose. Individual Postal Service areas typically control the HCRs and Postal Service transportation managers at the area and local levels are responsible for continually reviewing these routes to balance on-time service standards with costs. There were over 15,500 HCRs in FY 2011, traveling about 1.6 billion miles at a cost of over \$3.3 billion.

<u>GPS Requirement</u>. The Postal Service initiated a GPS requirement for selected contracted transportation routes in November 2010 to have visibility of mail while in transit. Under this GPS mandate, selected long-haul contracted routes (defined as routes traveling 50 miles or more) were required to provide certain GPS tracking information every 30 minutes while hauling mail, including the location of the vehicle. The required data covered the supplier's name, route number, trip number, location, origin or destination facility, action, date, and time.

The Postal Service engaged a management consulting and technology services company to assist in supporting the software application, which it owns and manages. This contractor provides support services for the HCR tracking system (such as making updates, writing ad hoc reports as requested by the Postal Service, and providing Help Desk functions to the user community (Postal Service and HCR suppliers). The HCR Tracking Module is maintained in Eagan, MN, and the data is transmitted via cell phone tracking solutions or traditional GPS devices directly to Eagan. The HCR Tracking Module is within the Postal Service's Logistics Condition Reporting System (LCRS). About 250 individuals at headquarters and in the areas and plants have authorized access to the HCR Tracking Module.

#### Objective, Scope, and Methodology

Our objective was to obtain information from Postal Service users on the effectiveness of the GPS tracking data and its uses to monitor HCR compliance and route performance. To accomplish our objective, we:

- Interviewed appropriate Network Operations and Supply Management officials at headquarters to obtain information on the planning, implementation, and use of GPS for HCRs.
- Interviewed representatives from Information Technology in Eagan and the Postal Service's contractor to understand how the HCR Tracking Module operates and confirm available reports.

- Identified through analysis of eAccess<sup>5</sup> all "authorized users" of the HCR Tracking Module that had approved access to the HCR Tracking Module within LCRS.
- Developed and issued an electronic survey to all 245 "authorized users" in the field that had approved access to the HCR Tracking Module as of February 24, 2012 as to their involvement with using the system and reports.

Work on this management advisory was conducted from June through August 2012 in accordance with the Council of the Inspectors General on Integrity and Efficiency, Quality Standards for Inspection and Evaluation. On July 23, 2012, we extended an invitation to the Postal Service management for an exit conference to discuss the informational data contained in the report. However, management informed us that an exit conference was not necessary.

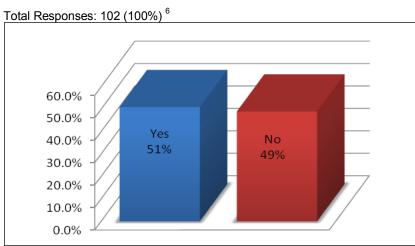
We reviewed, analyzed, and summarized the survey results; however, we did not test the usefulness or accuracy of the HCR Tracking data. We did not assess the reliability of the survey data although in our judgment the data were sufficiently reliable for the purposes of this report.

<sup>&</sup>lt;sup>5</sup> eAccess is a internet portal for requesting applications and resources in the Postal Service.

### Appendix B: Survey Results for All Questions

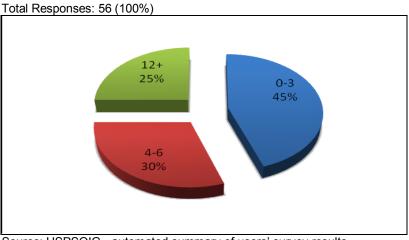
#### Access and Use

1. Have you accessed HCR GPS information in the HCR Tracking Module in LCRS?



Source: USPSOIG - automated summary of users' survey results

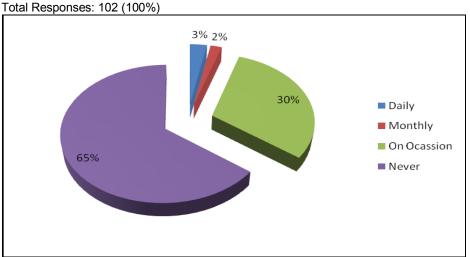
## 2. If you selected YES, how many months has it been since you accessed the system?



Source: USPSOIG - automated summary of users' survey results

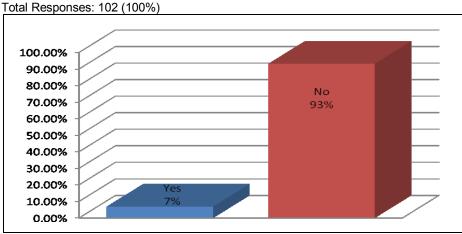
<sup>&</sup>lt;sup>6</sup> Percentages are rounded.

3. How often do you log into the "HCR Tracking Module" residing in the LCRS?



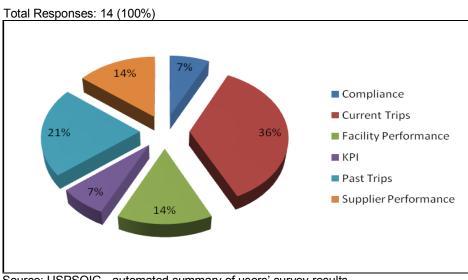
Source: USPSOIG - automated summary of users' survey results

4. Do you use the provided reports contained within the HCR Tracking Module?



Source: USPSOIG - automated summary of users' survey results

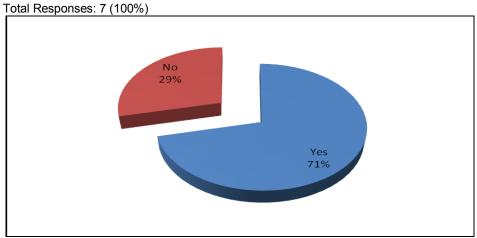
Note: Questions 5-7 reflect only the responses of the seven who responded "Yes" to the previous question regarding use of the reports contained in the HCR Tracking Module. The first question provides a count of all reports used during the last 3 months selected by the seven respondents.



#### 5. Which reports have you used within the last 3 months?

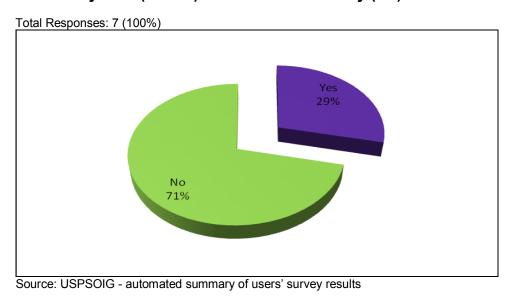
Source: USPSOIG - automated summary of users' survey results

#### 6. Do you find the canned reports helpful?

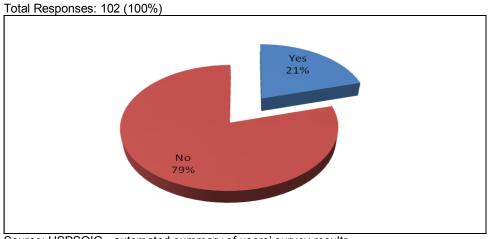


Source: USPSOIG - automated summary of users' survey results

7. Do they provide your facility with HCR information that is not found in other system reports, such as Transportation Information Management Evaluation System (TIMES) and Surface Visibility (SV)?

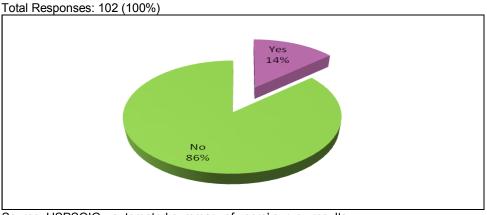


8. Does the data provided in the "HCR Tracking Module" help you perform your job functions?



Source: USPSOIG - automated summary of users' survey results

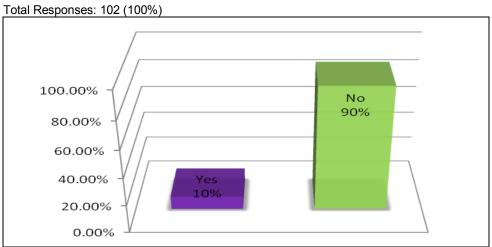
#### 9. Do you rely, in any way, on the GPS data fields "Estimated Arrival Time" or "Location" contained in the Current Trips Report or "Number of trips without a Late Ping or No Ping" contained within the compliance report?



Source: USPSOIG - automated summary of users' survey results

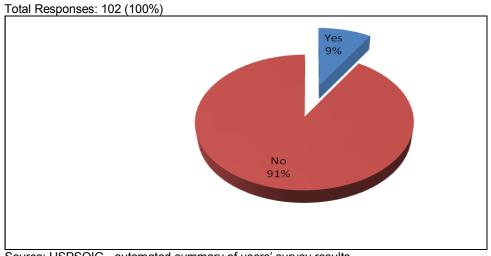
#### Monitoring, Tracking, and Compliance

## 1. Do you address supplier performance based on the information provided in the HCR Tracking Module?



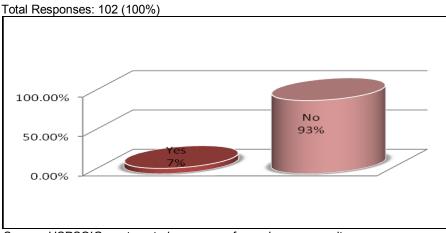
Source: USPSOIG - automated summary of users' survey results

## 2. Has this been an effective tool in monitoring and negotiating with suppliers?



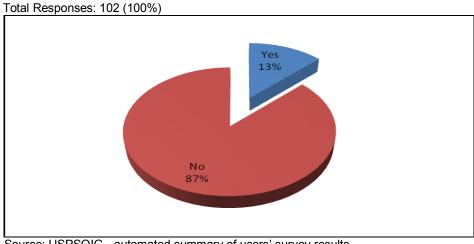
Source: USPSOIG - automated summary of users' survey results



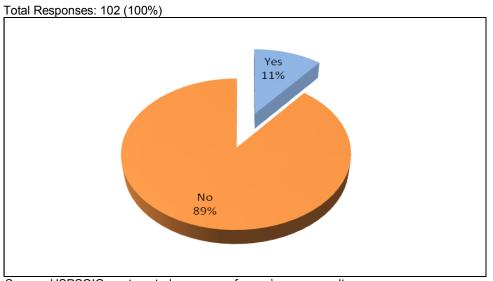


Source: USPSOIG - automated summary of users' survey results

4. Are incidents of non-compliance communicated to suppliers on a regular basis?



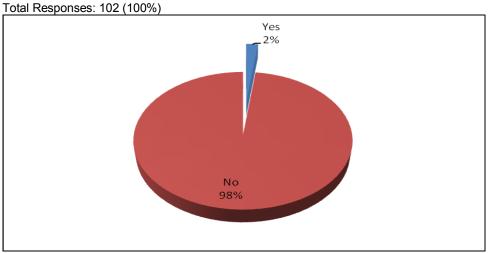
Source: USPSOIG - automated summary of users' survey results



5. Were actions taken to improve or ensure supplier compliance?

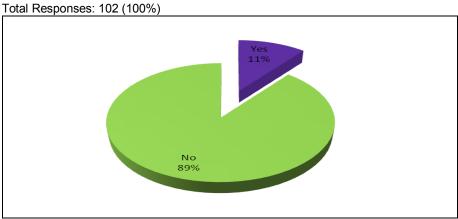
Source: USPSOIG - automated summary of users' survey results

6. Have you used the GPS data, in planning a more efficient and cost effective HCR for certain routes or trips?



Source: USPSOIG - automated summary of users' survey results

7. Have you received feedback/concerns from suppliers regarding the use of GPS?



Source: USPSOIG - automated summary of users' survey results

## **Appendix C: Relevant Survey Comments**<sup>7</sup>

Use and Access				
We surveyed respondents to determine "Do you rely, in anyway, on the GPS data fields "Estimated Arrival Time" or "Location" contained within Current Trips Report or "Number of trips without a Late Ping or No Ping" in the compliance report? If yes how?" Survey respondents provided a range of comments from their perceived benefits of the system to their limited use or data limitations.				
Comments addressing the effectiveness of GPS	The information from late ping or no ping lets us know if the truck is moving, or "unresponsive" to better estimate an ETA.			
	When there is bad weather, I like to look and see where the trucks are so that I can notify dock operations.			
	To determine if the driver took longer to get to destination if he made any detours.			
	Align staffing based on ETAs. Project clearance times.			
	Based on our location, with bridges/tunnels and traffic, it is useful to have an ETA on the long hauls arriving at our facility to monitor operation windows.			
	If there is an issue with a specific HCR, I will try to watch to see if there is a pattern or where it is.			
Comments addressing concerns or limited use	The system does not work - most of my GPS routes do not show up in the system.			
	I could never get accurate information.			
	I answered yes only to advise I have not used this tracking system beyond the first live inquiry.			
	Would use it during the Peak Season to locate Extra Peak Season trucks-at that time the system was not working, did not use it.			
	I could not complete the training because the system was not working. I have never used the system since the initial training when it was not working.			
	YesHowever, the last few times I accessed the system, it did not work!			

<sup>&</sup>lt;sup>7</sup> Comments were provided by respondents for those survey questions prompting for more details. Minor edits were made to responses for clarity and short responses (such as none or no one) and duplicate comments were deleted for reporting purposes.

#### Monitoring, Tracking, and Compliance

We then requested respondents tell us "Who beside yourself is responsible for reviewing the information in the HCR Tracking Module?"<sup>8</sup>

Comments received on the	No one, I have not had a chance to look in HCR Tracking Module but I
hierarchy of users for	can see how it can help with duties, just have not started using it yet.
monitoring and tracking	Transportation department
	Network Specialists
	TANs Managers
	DNO staff that has to response to a supplier
	DN staff during peak season operations; field transportation staff.
Comments addressing concerns or limited use	Just me. The problem is I get no data when I access the system and try to pull the data. If I was able to get data, it would be very useful.
	No one else in my facility that I'm aware of.
	We were going to use it for Peak Mailing Season but it was not working correctly.
	I don't know of anyone in my office who uses this system.
	I have no idea who does.

Monitoring, Tracking, and Compliance				
We subsequently requested the respondents to tell us "Are incidents of non-compliance communicated to suppliers on a regular basis?"				
Comments received on	Meetings with suppliers			
follow up for non- compliance conditions	Discussions with vendors and meetings with vendors if performance did not improve			
	Trailer location			
	Supplier was notified that contract would be terminated for failure to comply with the contract requirements (GPS). Supplier contacted the GPS provider and the GPS team at HQ. Problem was resolved, supplier is in compliance. Review concerns from the plants and bring a solution.			
	I was just introduced to this during the past week. I see it as a valuable tool that we will use frequently.			
	Contacting suppliers who tell me, they have problems with it.			
Comments addressing	Did not use			
concerns limitations on non-compliance conditions	Would use it more, if working better than what I saw during Peak Season			
	Have not used system			
	5500 are issued			

<sup>&</sup>lt;sup>8</sup> This question was one of the 17 total survey questions. Because it was designed to elicit only comments and did not ask for a yes/no response, it was not included with the 16 questions detailed in Appendix B.

Monitoring, Tracking, and Compliance		
We followed up with the respondents on "Have you received feedback/concerns from suppliers regarding the use of GPS?"		
Comments received on	Suppliers are adding to monitor fuel usage	
supplier concerns	Many of the local routes are being required to have the GPS system and they do not travel more than 100 miles.	
	Suppliers have told me they are using GPS to track their own trucks	
	I have a couple and they like it	
	Would be a good tool to use during Peak Season with the extra Christmas transportation on the road	
Comments addressing concerns or use	The system is not accurate, some days I see no data for trips into my facilities. Unable to have a filer, and as an NDC site we need that ability as the trips drop out of GPS at some point and have not arrived the facility.	
	Negative they feel it's not user friendly	
	The GPS tracking system is used for the trips to the PA MTESC only. There are no records for any of these trips. The GPS tracking system does not track any trips containing mail.	
	During Christmas, in the POC, I have had suppliers call in to let us know of issues logging and the like.	
	Drivers having problems with the system	
	Right now, the GPS system only covers the Pacific Area we need it for long hauls (other Areas). Also not every supplier shows up in the	
	system. It is hit and misses with some of the suppliers.	
	Difficult to implement	

#### **Additional Survey Comments** Survey users were asked, "If they had any additional comments they wanted to provide." Comments on any I have not used the system since it was implemented. When we first additional information received the training, there were only a hand full of suppliers that had the GPS in the vehicles so, the data was limited. With more suppliers using the GPS, I am sure the data is more valuable. This is a new program, which will be very useful to use at the SWA STC. We call contractors on a daily basis relating to late inbounds. At times, the dispatcher is slow or unable to respond definitively on these late trips. I only have visibility of 2 contracts neither of which we are the admin official. I like checking their locations when they are late. I am just an occasional user during Peak. Mainly to find anything I can out about late long haul trips. This system should be a valuable tool as it evolves for establishing realistic travel times; for tracking enroute trucks for mail processing planning, and many other uses. Very useful tool when working properly, improvements seen in the past 2 years. I currently have very limited contracts on GPS and would like to have more added in an effort to utilize this tool. I think this could be a very useful tool it I can get GPS on contracts that I have pinch points with. **Comments addressing** We need a more accurate tracking system like Load Track, then I concerns or use would use this daily versus occasionally. Used it once-Christmas 2010. Did not work and had to rely on suppliers GPS system for information I needed. All my comments were no because I have only used the HCR tracking module once during peak season two years ago. At that time, I was not very impressed with the system because I could not access any transportation operating in the Western Area and have not used the system since. As a TANS Manager, I have received no information on this system or how to utilize it as part of my day-to-day activities. Needs more real time for the dock operations people to use. Current staffing does not allow for time to properly use the system. To me, the system has seemed to be very non-useful.-There was brief training on the system before it started, and have seen nothing since. I often cannot find routes until I already know they have arrived. Suppliers have been frustrated with the system. I have asked for help and have been told this is not a reliable tool for tracking. I believe we are spending way too much money on a system that appears to be flawed, and many people have given up trusting it. I only attempted to use this system once - December 2010 as PEAK Season started. I thought it would be great to track the mail flow on the extra surface transportation we had added for Christmas. Unfortunately, the suppliers for PEAK were not required to use the new GPS. I never again tried to use the system. All inquiries made on LCRS are returned with a message saving no records are found. Origin and destination selections are limited and do not include all of our service points. We tried pulling up some reports and could not access the HCR's we have in place. Most of our Phoenix Long Haul's are headquarters controlled. The Origin and Destination kept showing Phoenix. A bit confusing that we saw.

Had never been made aware of the fact that we had access to the information. My responses may be a little skewed because of my access to the HCR Tracking System. I requested access to be used

during peak season when the Great Lakes Area Postal Operations Center is open and manned by Area DN personnel. During that time, we monitor the movement of HCRs and the tracking system would be ideal. This past peak season was the first time the system was available and we looked forward to it with great anticipation, but unfortunately it did not perform as advertised and we abandoned its use. Hopefully the bugs were worked out and it will be a great asset next year - monitoring the movement of HCRs is not a task we perform during the year.
We were told to get access but no guidance ever came out on the system.
In too many cases, drivers using GPS tied to phones take their phones with them when slip-seating which makes the data useless
I mainly use this for an estimate for on time or late routes. I have not found the accuracy for all trips to be 100% reliable.
I used the system once & found it to non-user friendly & did not meet my expectations.
This system does not bring up data for my routes. Could be that more training is in order.
I tried using the LCRS application over a year ago without success and have not attempted it since. It looks like the information provided would be helpful to our expeditors who may also be unaware of its functions.
GPS technology would be very useful if I can get the system to work. Geo-fencing is a great tool that can be utilized by STC's and Plants so they can be alerted to inbound trips delayed/or early and alert Admin Official if drivers deviate from line of travel. GPS system could also be utilized to populate Surface Visibility (SV), which should make the data more accurate and reliable. GPS tech should be expanded to PVS and Carrier operations so employees can be better tracked and performance can be improved.