



SPECIAL PROJECT REPORT

MetroAccess Customer Complaint: Review of Pick-up and Travel Time

February 17, 2021



Background

The Office of Inspector General (OIG) received a complaint from U.S. Congressman Gerald Connolly's office on behalf of a Washington Metropolitan Area Transit Authority's (WMATA) MetroAccess (MACS) customer. The complaint indicated that MACS is inefficiently routing its vehicles by dispatching service vehicles that are not close to the customer pick-up location, i.e., MACS vehicles in Maryland have been dispatched to pick up passengers in Virginia, and vice versa. Also, MACS vehicles are not taking the most direct route possible due to confusing traffic direction provided by the vehicle's Global Positioning System (GPS).¹ Lastly, the customer reported issues involving both untimely pick-ups and lengthy travel time, allegedly caused by late arrivals for pick-up and the confusing GPS information.

Executive Summary

OIG reviewed the complainant's information as part of an evaluation of the MACS Program. The evaluation identified the following areas in need of improvement:

- The need to procure a new and effective real-time traffic information system that complies with the appropriate WMATA procurement policy and supports the requirements of implementing the plan for a new paratransit scheduling system.² WMATA spent \$220,000 for real-time traffic interface map licenses that were not effective, following a change to the mapping engine by the vendor, causing, in part, rider delays and aggravation;
- The need for improved efficiency of routing and scheduling for the paratransit system, which would be supported by GPS with the real-time traffic information to minimize delays and confusion for the paratransit riders. The system should be interoperable with appropriate mobility management technologies, meeting requirements for MACS operations and disability community members;
- The need to review and update WMATA's scorecard measures of performance, not only for assessing "On-Time Performance" (OTP) of pick-ups, but also the trip-lengths, i.e., "On-Board Time" (OBT), so program performance is evaluated against relevant metrics and the Americans with Disabilities Act (ADA) compliance criteria; and
- The need to continue communication and engagement efforts with members of the disability community. WMATA needs to leverage the spectrum of automation/mobility management findings with other transit authorities and organizations for benchmarking and implementing appropriate, real-time traffic information application and paratransit technology scheduling system as necessary.

Further, there is a need for a review and analysis of MACS' overall performance as part of WMATA's plan for a new scheduling platform to improve the efficiency of routing and scheduling for paratransit rides.³ OIG is concerned that as much as the new scheduling platform may improve MACS' overall performance in the future, sporadic travel time delays and frustration experienced by the complainant were not being addressed fully and contemporaneously. WMATA lacked a solution applicable to its ongoing systemic problem with the real-time traffic information system.

¹MACS vehicles have an onboard mini-computer that connects to the GPS and customer trip information. The computer also interfaces with additional systems for "real-time" traffic map information and the paratransit scheduling system.

²Program of Projects, SPPM, FY2021 – 2030, December 2019, pg. 438. Project Number 10667 Description: "Implement new scheduling platform to improve efficiency of routing and scheduling for paratransit rides and to potentially reduce operational expenses...."

³Ibid, Program of Projects, SPPM, FY2021 – 2030, December 2019, pg. 438.

Specifically, the review found that as of March 2020, WMATA had not maintained its real-time traffic mapping system due to the former service provider's inability to address technical issues. MACS has not yet acquired a new real-time mapping system provider; currently, the drivers use end-to-end GPS directions that do not reflect current traffic or road conditions.

Complementary Paratransit Service

FTA requires most public entities operating a fixed route transit system to provide paratransit or other special service to individuals with disabilities that is comparable to the level of service provided to individuals without disabilities who use the fixed route system.⁴ WMATA's Department of Access Services (ACCS) ensures the accessibility of public transportation for persons with disabilities. As part of ACCS, MACS provides complementary paratransit service to ADA eligible customers. These services are provided throughout the District of Columbia and certain areas within Maryland and Virginia during the same hours of operation as Metrorail and Metrobus. WMATA owns the MetroAccess vans and sedans and has entered into contractual relationships with several private entities to provide the MACS service. Each MACS ride cost is not to exceed \$6.50 and is required to be scheduled at least one day in advance.

Specifically, MACS provides approximately 8,000 trips each day, with three paratransit service providers in Maryland and one in Virginia.⁵ Trips scheduled may include "shared ride" pick-ups in that multiple passengers may ride together in the same vehicle. ACCS explained to OIG that MACS vehicles from Maryland could pick up customers in Virginia, and vice versa, as the goal of On-time Performance (OTP) is to arrive within the scheduled pick-up "window." ACCS added that most service providers are physically located in Maryland and they would likely respond to the demands for pick-up from customers in Virginia. The service providers do not receive any additional incentives for the actual distance traveled.

Lastly, MACS' OTP is part of WMATA's system-wide measurement for quality of service in which it monitors whether or not MACS vehicles arrive on-time for pick-ups, i.e., within the scheduled pick-up window. Unlike the measurement for OTP, the review found that the length of travel time is not regularly monitored or measured, having no performance standard or goal. It is reviewed on a case-by-case basis.

⁴49 CFR § 37.121 – Requirement for comparable complementary paratransit service; FTA Circular 4710.1, Americans with Disabilities Act (ADA): Guidance, Chapter 8 – Complementary Paratransit Service, November 5, 2015, Pg. 8-1.

"Paratransit means comparable transportation service required by the ADA for individuals with disabilities who are unable to use fixed route transportation systems." [49 CFR § 37.3 - Definitions.]

⁵Estimated number of trips prior to the COVID-19 pandemic.

OIG Observations

At the time of OIG's review, MACS reported 90 percent On-Time Performance (OTP) for the 3rd quarter FY2020, meeting its 90 percent target performance goal. Nevertheless, to be deemed comparable to fixed-route service, Federal Transit Administration (FTA) guidance states that complementary paratransit system must meet certain requirements and service criteria. The requirement for comparable complementary paratransit service includes eligibility standards and process, visitors, service types, service criteria, and regulations permitting subscription service. Therefore, additional relevant performance indicators, e.g., trip lengths, customer complaints, etc., should be regularly monitored for the process of MACS' data collection and reconciliation to assess the overall quality of service and ADA compliance.

The length of complementary paratransit trips is another important measure of service. FTA states that a pattern or practice of substantial numbers of trips with excessive trip lengths is a form of capacity constraint. To avoid excessive trip lengths, the FTA encourages the establishment and use of travel time performance standards.

OIG recommends:

- Establish a plan to monitor paratransit trip-length performance, as suggested by the FTA, to meet its target performance goal in compliance with service criteria for complementary paratransit.
- Update applicable areas of the WMATA Performance Report and Scorecard reporting, clearly showing on-time pick-up performance information, not reporting it as On-Time Performance.

Customer Complaint

The customer reported issues involving both untimely pick-ups and lengthy travel time, allegedly caused by late arrivals for pick-up and the confusing GPS information. In response to the complaint, MACS reviewed the customer's trip history. Actual travel time is known as OBT.

ACCS explained that WMATA currently does not have a definition or standard of excessive travel time; therefore, the measure is simply, "did the customer's time onboard the vehicle exceed the amount of time they would have been on a bus and/or rail? If yes, that constitutes excessive travel time." Nevertheless, as mentioned above, monitoring the length of OBT is an essential measure of service that helps to avoid a form of "capacity constraint" due to excessive trip lengths.⁶ FTA encourages the establishment of travel time performance standards and expects transit agencies to closely monitor trip length performance.

Although FTA does not dictate the specifics of an agency's monitoring efforts, it states that transit agencies must sufficiently monitor private contractors' performance. The contractors should "stand in the shoes" of the agency in monitoring areas such as on-time pick-up performance, missed trips, and trip lengths. FTA recommends that agencies enter into clearly worded and concise contracts with explicit service provision requirements including minimum performance standards, incentives and penalties, and regular reporting.⁷

⁶FTA C 4710.1 Chapter 8 – Complementary Paratransit Service, 8.5.5 Excessive Trip Lengths – Prohibited Operational Practices, Pg. 8-23.

"Excessive" is in comparison to the time required to make a similar trip using the fixed route system...."

⁷Ibid., FTA C 4710.1 Chapter 12.8 Transit Agency Monitoring, pp. 12-11 and 12-12.

In response to the specific complaint at issue, MACS conducted a review of the following two trips reported by the customer:

February 4, 2020

The customer experienced a travel time of 98 minutes; however, the maximum Fixed Route Equivalent (FRE) time was 81 minutes. MACS' review found the vehicle picked up another customer in Fort Washington, Maryland, which may have delayed the trip. Additionally, the route taken by the vehicle was found to be part of a "progressive routing" plan that included multiple pick-ups as opposed to a direct routing plan for one passenger. In this instance, the travel time exceeded the FRE time. The routing itself, with multiple pick-ups, was considered acceptable for a public, shared-ride transportation service; however, the time taken for the trip was not acceptable.

March 12, 2020

The customer experienced a travel time of 65 minutes. The maximum FRE time was 78 minutes, resulting in an early arrival. However, MACS determined the customer's travel route was inefficient and believed to be caused by the GPS-related issue. As part of the capital projects review process, WMATA is evaluating the performance of the overall paratransit technology scheduling system.⁸

OIG Observations

As a result of the referral to OIG by Congressman Connolly's office, OIG began reviewing the customer's complaint. In that process, OIG identified matters that should be addressed by WMATA. The travel time delays and frustration experienced by the complainant were not addressed. Therefore, a more detailed review of MACS pick-up and trip-length data is needed to determine if there is a pervasive problem with the length of travel time that exceeds traveling via Metro bus and/or rail. The review will also assist in establishing a more reliable performance metric to evaluate performance in conjunction with making improvements to the efficiency of routing and scheduling for paratransit customers. OIG recommends:

- Require regular reporting and review of relevant MACS performance data, including on-time pick-up and FRE trip-length.

Real-time Traffic Map Information and Termination of Service

In 2014, MACS informed WMATA's Accessibility Advisory Committee (AAC)/MACS Subcommittee of the need for integrating the real-time traffic map information to provide the "most appropriate or direct routing" services. The ACCS 2017-2019 Business Plan for additional technological enhancements included a plan for obtaining real-time traffic map information. In May 2017, through a simplified acquisition, WMATA purchased real-time traffic interface licenses for \$70,000 (first year) and \$72,500 (additional option year), totaling \$142,500, from the former routing service provider. In April 2018, WMATA exercised its purchase option year that extended the agreement to June 2019. In May 2019, following a new, limited competitive solicitation, WMATA purchased its third year of routing service for \$77,500, totaling in the aggregate amount of \$220,000 from the same service provider. The third service year covered the period between July 1, 2019, and June 30, 2020.

⁸Ibid., Program of Projects, SPPM, FY2021 – 2030, December 2019, pg. 438.

In addition, MACS informed OIG that during the third year of service, it was unable to maintain the necessary real-time traffic map information due to the former service provider's inability to address technical issues. Subsequently, WMATA and the former service provider mutually agreed to terminate the contract. The 3rd quarter FY2020 Performance Report explained that the "real-time traffic application was not optimizing routes given current conditions, leading to lower on-time performance. As of February 28, 2020, this application has been removed from MACS operating systems, and Metro is soliciting a new system." The Office of Procurement and Materials (PRMT) commented that PRMT should have been included early in the discussion regarding the former service provider. According to PRMT, they became involved in the contract termination when they received notification that the former vendor wanted to end the contract by mutual agreement and cancel the remaining service time. WMATA was refunded \$25,833 for the remaining service period between March and June 2020.

In September 2020, MACS informed OIG that although WMATA did solicit to replace its former service provider, the solicitation had to be retracted in order to address the real-time traffic information requirements for the entire MACS service fleet. The solicitation only included the software for MACS vans and did not include the sedans. At the time of OIG's review, MACS was updating its Statement of Work (SOW) and planning to submit the SOW to the Office of Procurement and Materials. Since the removal of the real-time map application, drivers are using end-to-end GPS directions that do not reflect current traffic or road conditions.

OIG Observations

WMATA spent \$220,000 for real-time traffic interface map licenses that were not effective following a change to the mapping engine by the vendor, causing, in part, rider delays and aggravation. OIG recommends:

- Implement a new and effective real-time traffic information system that complies with the appropriate WMATA procurement policy and supports the requirements of implementing the plan for a new paratransit scheduling system.

Communication with Disability Community

WMATA's communication and engagement efforts with members of the disability community should continue to be part of the process for implementing MACS' new scheduling technology.¹⁰ The AAC/disability community members have been discussing MACS' need for effective GPS and scheduling services. Some of these issues were discussed at AAC meetings and recorded in their meeting minutes. For example, in January 2020, AAC reported that it had received "too many calls" about MACS vehicles arriving too early at their destinations. MACS responded that it would update the system to address the issue. The real-time map application was eventually removed from the system and MACS reverted to its default turn-by-turn directions without having the benefit of viable, real-time traffic information. In July 2020, AAC discussed its preference for application software that could provide drivers' location and estimated arrival time. In addition, some community members are not able to use smartphone functions and may not even own such a phone. MACS informed that there would be opportunities for AAC and other stakeholders to be involved and that WMATA is trying to get a new mapping system.¹¹ The system should be interoperable with appropriate mobility management technologies, meeting requirements for MACS operations and disability community members.

OIG Observations

In October 2020, MACS informed AAC that they were seeking a new application software. OIG is encouraged with WMATA's continuous engagement efforts with AAC/disability community members and other transit authorities/organizations to assist in benchmarking and integrating its functional requirements with appropriate paratransit technology. OIG recommends:

- Continue communication and engagement efforts with AAC/disability community members and other transit authorities/organizations for benchmarking and implementing real-time traffic information and appropriate paratransit technology scheduling system.

Summary of Recommendations

OIG is encouraged by the actions being proposed by WMATA. WMATA should establish and monitor performance standards for its paratransit travel time in addition to current actions being taken. On-time drop-off times are just as crucial to the customer as on-time pick-up times. The customer should be able to plan for both times to ensure that their transit experience is efficient to meet their needs. By monitoring and analyzing trip lengths, MACS can identify service issues and, if necessary, make operational adjustments to improve performance and to avoid capacity constraints such as a pattern of excessive trip lengths.¹²

We recommend the General Manager/Chief Executive Officer take the following actions to address the issues identified above:

1. Establish a plan to monitor paratransit trip-length performance, as suggested by the FTA, to meet its target performance goal in compliance with service criteria for complementary paratransit;
2. Update applicable areas of the WMATA Performance Report and Scorecard reporting, clearly showing on-time pick-up performance information, not reporting it as On-Time Performance;
3. Require regular reporting and review of relevant MACS performance data, including on-time pick-up and FRE trip-length;
4. Implement a new and effective real-time traffic information system that complies with the appropriate WMATA procurement policy and supports the requirements of implementing the plan for a new paratransit scheduling system; and
5. Continue communication and engagement efforts with AAC/disability community members and other transit authorities/organizations for benchmarking and implementing real-time traffic information and appropriate paratransit technology scheduling system.

Management responded on January 27th, 2021 and concurred with all 5 recommendations. The complete response is attached as Appendix A.

¹⁰49 CFR § 37.137 (c) Ongoing requirement. The entity shall create an ongoing mechanism for the participation of individuals with disabilities in the continued development and assessment of services to persons with disabilities.

¹¹FTA's 2018 strategic transit automation research plan included para transit automation technology reviews. FTA recognized that transit technology could deliver many potential benefits, but transit agencies need additional research and policy guidance to make informed deployment decisions. For example, a regional research organization's preliminary investigation on Mobility Management Technology found that [transit agencies] could not always speak directly or comprehensively to the challenges and benefits of mobility management technologies, especially in comparison to other systems.

¹²Ibid, FTA Circular 4710.1, ADA Guidance, Chapter 8 – Complementary Paratransit Service, Pp. 8-23 and 8-24. The Circular states, in part, "As with on-time performance, operational problems that are attributable to causes beyond the control of the transit agency are not a basis for determining that a pattern or practice of excessive trip length exists. However, effective complementary paratransit operations account for recurring factors such as known peak-period traffic conditions."

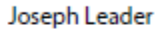
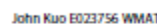
MANAGEMENT'S RESPONSE




M E M O R A N D U M

SUBJECT: Management Response to Special Project Report *MetroAccess* Customer Complaint: *Review of Pick-up and Travel Time*
Dated January 19, 2021

DATE: January 27, 2021

FROM: COO - Joseph Leader, EVP  Joseph Leader
IBOP - John Kuo, EVP  John Kuo E023756 WMATA

Digitally signed by Joseph Leader
Date: 2021.01.29 13:45:11 -0500

THRU: GM/CEO - Paul J. Wiedefeld 

TO: OIG - Geoffrey Cherrington

This memo is in response to Office of Inspector General (OIG) Special Project Report *MetroAccess Customer Complaint: Review of Pick-up and Travel Time*, dated January 19, 2021.

The Department of Access Services (ACCS) and the Office of Procurement (PRMT) have reviewed the report and are providing the following responses to the recommended corrective actions.

OIG RECOMMENDATIONS AND MANAGEMENT RESPONSES

1. Establish a plan to monitor paratransit trip-length performance, as suggested by the FTA, to meet its target performance goal in compliance with service criteria for complementary paratransit.

Management Response: Concur. MetroAccess will continue monitoring trip length performance, not only to ensure that a vast majority of trips are completed within the ADA allowable fixed route equivalent (FRE) time and identify efficiency opportunities, but to also proactively identify potential scheduling and/or routing issues. MetroAccess will develop a query to identify bi-weekly customers with the highest percentage of trips that exceed fixed route equivalent (FRE) time, similar to a query previously developed related to on-time performance.

ACCS due date June 30, 2021

2. Update applicable areas of the WMATA Performance Report and Scorecard reporting, clearly showing on-time pick-up performance information, not reporting it as On-Time Performance

Management Response: Concur. The MetroAccess Performance Report has been updated to reflect On-Time Pick-up. (Please see Image #1.)

Complete

Washington
Metropolitan Area
Transit Authority

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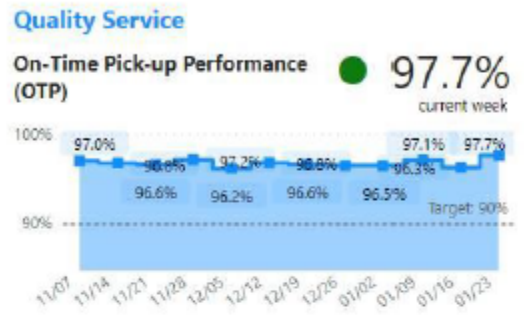


Image #1

- Require regular reporting and review of relevant MACS performance data, including on-time pick-up and FRE trip-length.

Management Response: **Concur.** FRE Compliance will be added to the MetroAccess Performance Report as a public-facing metric alongside On-Time Pick-up.
ACCS due date June 30, 2021

- Implement a new and effective real-time traffic information system that complies with the appropriate WMATA procurement policy and supports the requirements of implementing the plan for a new paratransit scheduling system.

Management Response: **Concur with Condition.** MetroAccess has a solicitation effort underway to secure Real Time Traffic (RTT) service. MetroAccess believes in the potential of RTT, but MetroAccess is not totally dependent on RTT. MetroAccess successfully used turn-by-turn directions prior to transitioning to RTT, and successfully reverted back to turn-by-turn directions once it became clear that the RTT services of the prior contractor no longer met the standards required to support the MetroAccess service.

MetroAccess fully intends to utilize the RTT service that emerges from the current solicitation, but only after extensive live on-street testing. Once testing confirms the RTT of the selected vendor does meet the standards required to support MetroAccess, we will proceed accordingly. However, if testing results do not yield confidence in the product, MetroAccess will use turn-by-turn directions indefinitely until an adequate RTT solution is found with the selected vendor at perhaps yet another solicitation round. Testing is expected to end on or before October 31, 2021.

ACCS due date October 31, 2021

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5. Continue communication and engagement efforts with AAC/disability community members and other transit authorities/organizations for benchmarking and implementing real-time traffic information and appropriate paratransit technology scheduling system.

Management Response: Concur. ACCS will continue to provide regular updates to the Accessibility Advisory Committee and members of the disability community at-large on this project. The most recent update was provided during the October 19, 2020 AAC MetroAccess Subcommittee meeting.

Complete

TO REPORT FRAUD, WASTE, OR ABUSE

Please Contact:

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