

2nd Quarterly Report

PUBLIC REPORT

Date of Report: March 28, 2025

Contract Number: 693JK32410003POTA

Prepared for: US DOT/PHMSA

Project Title: Evaluation of GeoLocation & Pipe Damage Assessment Applications

Prepared by: NYSEARCH/NGA

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For quarterly period ending: March 31, 2025

1. Items Completed During this Quarterly Report:

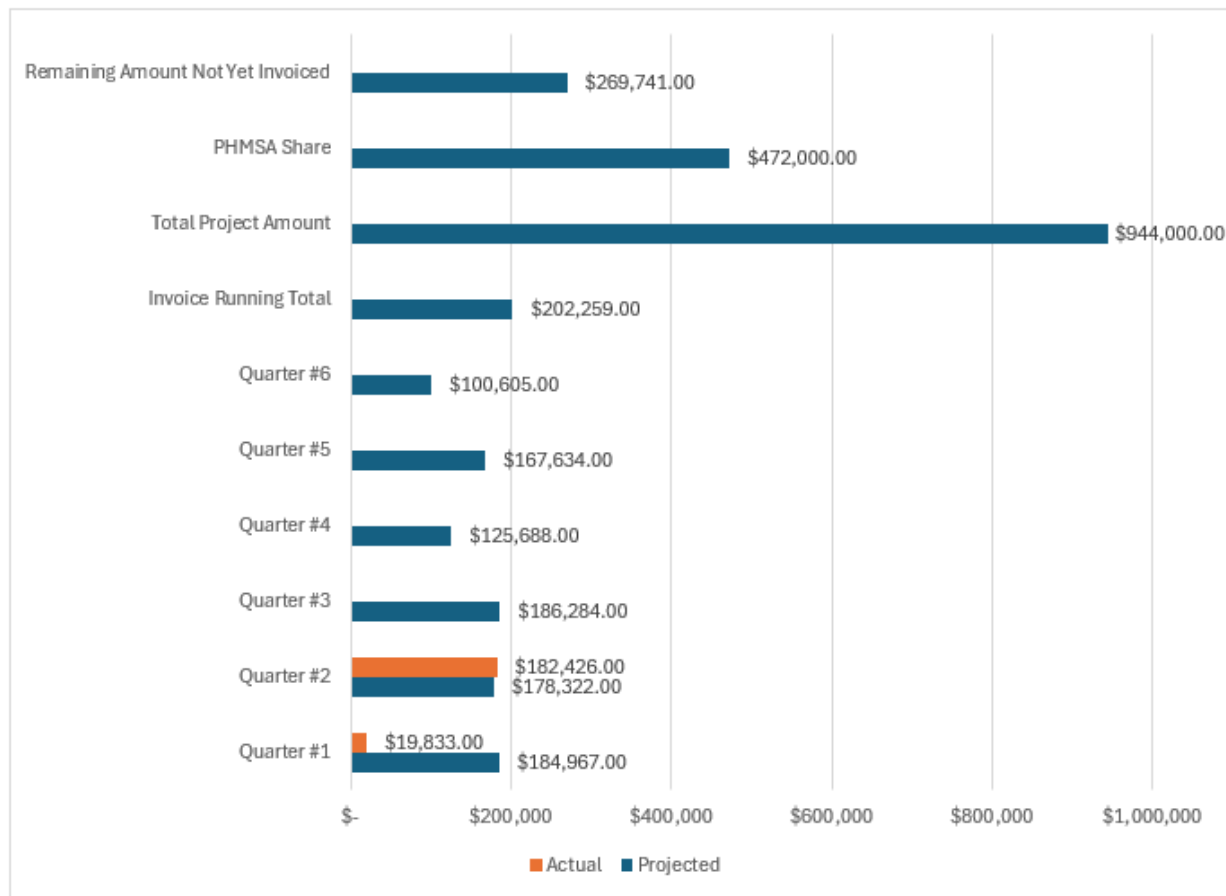
<i>Item #</i>	<i>Task #</i>	<i>Activity/Deliverable</i>	<i>Title</i>	<i>Federal Cost</i>	<i>Cost Share</i>
1	1	Active Source System Review	Detailed review of the results and performance from the Phase III testing	\$61,664	\$103,470
5	2	NYSEARCH Project	Technical management of project	\$9,942	\$0
6	6	2nd Quarterly Status Report	Submit 2nd quarterly report	\$7,350	\$0

2. Items Not-Completed During this Quarterly Period:

<i>Item #</i>	<i>Task #</i>	<i>Activity/Deliverable</i>	<i>Title</i>	<i>Federal Cost</i>	<i>Cost Share</i>
4	2	Advance the prototype into a field worthy system	Advance the system developed in the pervious Phase to work in the field and validate on the test bench before field testing	\$68,224	\$92,806

3. Project Financial Tracking During this Quarterly Period:

Quarterly Payable Milestone/Invoices – Agreement #693JK32410003POTA



4. Project Technical Status:

Improvements in system sensitivity and signal processing remain central to improving the system's performance for future deployments. Efforts are underway to enhance sensor sensitivity and refine algorithms to overcome current limitations and improve accuracy. Identified strategies for performance optimization, including software enhancements and alternative sensor techniques, will be explored in the next quarter.

During the second quarter of the project, significant progress was made in system testing and analysis. Key tests evaluated standoff distance and the impact of nearby metallic objects. While simulations suggested promising capabilities, test bench testing highlighted area for improvement in signal-to-noise ratios. The system demonstrated the ability to detect metal loss and corrosion at distances of 22–32 inches, with potential for greater accuracy at higher standoff distances with further refinements.

Calibration and noise reduction efforts yielded improved measurement accuracy and data quality, though ongoing work is needed to address residual noise. Collaborations with project partners have identified additional strategies to enhance system performance, including exploring advanced processing techniques and alternative approaches.

5. Project Schedule:

Despite the delay in completing the two system verification tests, and the challenges we are currently facing with the signal to noise ratio, we expect to be able to complete the project on time per the project's schedule.