

TRANSPORTATION POOLED FUND PROGRAM QUARTERLY PROGRESS REPORT

Date: June 30, 2024

Lead Agency (FHWA or State DOT): Indiana DOT

INSTRUCTIONS:

Project Managers and/or research project investigators should complete a quarterly progress report for each calendar quarter during which the projects are active. Please provide a project schedule status of the research activities tied to each task that is defined in the proposal; a percentage completion of each task; a concise discussion (2 or 3 sentences) of the current status, including accomplishments and problems encountered, if any. List all tasks, even if no work was done during this period.

Transportation Pooled Fund Program Project # <i>(i.e., SPR-2(XXX), SPR-3(XXX) or TPF-5(XXX))</i> <u>TPF 5-387</u>		Transportation Pooled Fund Program - Report Period: <input type="checkbox"/> Quarter 1 (January 1 – March 31) <input checked="" type="checkbox"/> Quarter 2 (April 1 – June 30) <input type="checkbox"/> Quarter 3 (July 1 – September 30) <input type="checkbox"/> Quarter 4 (October 1 – December 31)	
Project Title: Development of an Integrated Unmanned Aerial Systems (UAS) Validation Center			
Name of Project Manager(s): Tommy E. Nantung		Phone Number: (765) 463-1521 ext. 248	
E-Mail tnantung@indot.in.gov		Project Start Date: 9/1/2018	
Lead Agency Project ID:		Other Project ID (i.e., contract #):	
Original Project End Date: 8/31/2022		Current Project End Date: 2/28/2025	
Number of Extensions: TWO			

Project schedule status:

☐ On schedule
 ☐ On revised schedule
 ☐ Ahead of schedule
 ☒ Behind schedule

Overall Project Statistics:

Total Project Budget	Total Cost to Date for Project	Percentage of Work Completed to Date**
\$700,000	\$665,132	99%

Quarterly Project Statistics:

Total Project Expenses and Percentage This Quarter	Total Amount of Funds Expended This Quarter	Total Percentage of Time Used to Date**
\$32,753	4.7%	87%

**Since end date has been extended, project percentages have been updated (estimates)

Project Description:

This study proposes to develop the basic standards, protocols, and testing requirements that a given UAS must meet and demonstrate for a particular application.

Progress this quarter (includes meetings, work plan status, contract status, significant progress, etc.):

- Implemented feedback and edits into the final report. The report includes additional feedback from recent visitors and allows flexibility to revise further during the implementation phase.
- Developed a report appendix that includes design decisions and frequently asked questions regarding elements, locations, arrangements, and materials.
- Completed a proposal for the implementation phase of the pooled fund project. The proposal summarizes the pooled fund project deliverables, details a methodology to move research into practice, and the specific tasks during Phase II. The research team is reviewing feedback provided by state partners and sharing the revised proposal with states interested in implementing Phase II.
- Per the Project partners' suggestion, the Research Team has continued disseminating the project's early results on national platforms and to other DOTs. The Research Team presented at the AASHTO Committee on Bridges and Structures (COBS) meeting to an audience of DOT representatives, industry, and academia. The attendees had the opportunity to travel to the S-BRITE facility and had a walkthrough of the project deliverables. More representatives from DOT in partner and non-partner states showed interest in the implementation part of the project.
- Final arrangements to host representatives from the Army Corps of Engineers and the Federal Highway Administration regarding project deliverables and implementation proposal. In addition, the Army Corps expressed its interest in contributing to the beta-testing and implementation phases.

Anticipated work next quarter:

- Finalize the implementation proposal and distribute it to partner and non-partner states. The Research Team will inquire about their interest in committing additional budgets to implement the project deliverables in their state. The proposal details the tasks, the additional funding, and the possibility of cost-sharing through regional implementations.
- The Research Team will continue disseminating the project's results and implementation proposal on national platforms and DOTs. In the next quarter, the team will write an abstract for submission at the World Steel Bridge Symposium and the Bridge and Tunnel Inspectors' Conference. Additional opportunities will be arranged later in the quarter.
- Continue to bring various bridge inspectors to the S-BRITE center to get real-world feedback on the tests. Due to flight authorization logistics, the next visitors, the Army Corps of Engineers and Federal Highway Administration representatives, were rescheduled for the middle of July. The feedback and data the visitors provide will be used to improve the current test procedures and scoring for evaluating the performance of UAS used in bridge inspection.
- Work with Project partners to coordinate future visits at the S-BRITE center and provide details regarding the implementation phase.
- Revise test methodology and procedures according to the feedback provided during beta testing.
- Continue working on the final report for the pooled fund project. The report will contain feedback and validation from partners and visitors.

Significant Results:

Circumstance affecting project or budget. (Please describe any challenges encountered or anticipated that might affect the completion of the project within the time, scope and fiscal constraints set forth in the Agreement, along with recommended solutions to those problems).

Potential Implementation:

None to date