

**TRANSPORTATION POOLED FUND PROGRAM  
QUARTERLY PROGRESS REPORT**

Date: September 30, 2020

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.*

<b>Transportation Pooled Fund Program Project #</b> <i>(i.e., SPR-2(XXX), SPR-3(XXX) or TPF-5(XXX))</i>  <u><b>TPF 5-387</b></u>		<b>Transportation Pooled Fund Program - Report Period:</b> <input type="checkbox"/> Quarter 1 (January 1 – March 31) <input type="checkbox"/> Quarter 2 (April 1 – June 30) <input checked="" type="checkbox"/> Quarter 3 (July 1 – September 30) <input type="checkbox"/> Quarter 4 (October 1 – December 31)	
<b>Project Title:</b> <b>Development of an Integrated Unmanned Aerial Systems (UAS) Validation Center</b>			
<b>Name of Project Manager(s):</b> Tommy E. Nantung		<b>Phone Number:</b> (765) 463-1521 ext. 248	<b>E-Mail</b> <a href="mailto:tnantung@indot.in.gov">tnantung@indot.in.gov</a>
<b>Lead Agency Project ID:</b>		<b>Other Project ID (i.e., contract #):</b>	<b>Project Start Date:</b> 1/1/2019
<b>Original Project End Date:</b> 12/31/2022		<b>Current Project End Date:</b> 12/31/2022	<b>Number of Extensions:</b> None

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**
<b>\$575,000</b>	<b>\$186,867</b>	<b>48%</b>

Quarterly Project Statistics:

Total Project Expenses and Percentage This Quarter	Total Amount of Funds Expended This Quarter	Total Percentage of Time Used to Date**
<b>\$32,961</b>	<b>5.7%</b>	<b>75%</b>

\*\*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.):**

- In spite of the COVID-19 pandemic, some progress has been made regarding further development of the obstacle course, camera optic requirements, and pilot mission planning skill requirements.
- A summary report of the progress made in the past few months is attached to this QPR.

**Anticipated work next quarter:**

- Continue with the development of the testing protocols for UAS.
- Schedule Project Panel meeting for some time in the 3<sup>rd</sup> or 4<sup>th</sup> Quarter of 2020.

**Significant Results:**

1. Progress has been made regarding the development of the obstacle course, camera optic requirements, and pilot mission planning skill requirements.

**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).**

1. The COVID-19 restrictions resulted in Purdue University shutting down entirely in Mid-march 2020. All access to laboratory facilities were halted effectively bringing all research to a standstill. In mid-June 2020, standard Operating Procedures were being developed for review by the University to begin safe operations. Bowen Laboratory and the S-BRITE Center were cleared to allow research to re-start in mid-July of 2020. Clearly, COVID has been a major impact on this and other research projects. The Research Team is working hard to try and make up for lost time due to the laboratory shut downs while still working as safely as possible and within the confines of Purdue's COVID-19 operation procedures.

**Potential Implementation:**

None to date