

**NEW ENGLAND TRANSPORTATION CONSORTIUM  
QUARTERLY PROJECT PROGRESS REPORT**

- A. PROJECT NUMBER AND TITLE:** NETC 18-3, Integration of Unmanned Aircraft Systems (UAS) into Operations Conducted by New England Departments of Transportation
- B. PRINCIPAL INVESTIGATOR(s) & UNIVERSITY(s):** Adrienne Lindgren (WSP USA, Inc.)
- C. WEB SITE ADDRESS (If one exists):** None.
- D. START DATE (Per NETC Agreement):** April 16, 2019
- E. END DATE (Per NETC Agreement):** March 31, 2021
- F. ANTICIPATED COMPLETION DATE:** March 31, 2021
- G. PROJECT OBJECTIVES:** The objective of this research is to provide guidance to New England state DOTs regarding best practices when incorporating UAS into daily operations.
- H. REPORT PERIOD:** Quarter 1, 2020 (January 1 – March 31)
- I. ACCOMPLISHMENTS THIS PERIOD:** Task 3, “Address Challenges Associated with UAS”, activities were initiated. Task 3 activities include conducting six (6) case studies (via interview) with representatives from each DOT to understand traditional workflows of selected transportation applications from Task 1 as well as define how to mitigate challenges with UAS tech and FAA regulations. Five (5) out of six (6) interviews were successfully scheduled and completed during this time.
- J. PROBLEMS ENCOUNTERED (If any):** COVID-19 has caused us to delay the scheduling of one (1) interview (bridge inspection). However, the interview will be completed in April.
- K. TECHNOLOGY TRANSFER ACTIVITIES:** None.

**L. STATUS BY TASK:**

<b>Task</b>	<b>Description</b>	<b>% Complete</b>
<b>Task 1</b>	Explore UAS applications to support state DOT missions.	<b>100%</b>
<b>Task 2</b>	Identify up-to-date technologies and support systems necessary for the identified UAS applications.	<b>100%</b>
<b>Task 3</b>	Address challenges associated with the UAS technologies, FAA rules and regulations.	<b>25%</b>
<b>Task 4</b>	Develop procedures to carry out these UAS applications.	<b>Not started</b>
<b>Final Report</b>	Compilation of research analysis and findings.	<b>Not started</b>
<b>NETC Technology Transfer</b>	NETC Technology Transfer toolbox including project fact sheet, poster, and webinar recording.	<b>Not started</b>
<b>Overall</b>		<b>32%</b>

**M. PERCENT COMPLETION OF TOTAL PROJECT: 32%**

- N. ACTIVITIES PLANNED FOR NEXT QUARTER:** Next quarter, it is anticipated that Task 3 will be nearly complete, pending the submission of the Task 3 Final Report on July 16<sup>th</sup>. Over the next three (3)

months, the team will be completing process maps for each transportation application, using the interviews previously conducted under this task as the baseline. Specifically, the mapping exercise will focus on the process from data collection to decision using a UAS versus traditional methods. Additionally, the project team will conduct an analysis of FAA rules and regulations to identify key barriers or challenges for UAS implementation from a regulatory perspective. Finally, the team will map out the FAA Part 107 waiver process, identify any relevant challenges, and develop mitigation strategies.

**O. FINANCIAL STATUS:**

**As of:** *March 31st, 2020*

**Total Project Budget:** \$146,631.57

**Total Expenditures:** \$46,971