

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

A. PROJECT NUMBER AND TITLE:

NETC 20-3 Investigating Thermal Imaging Technologies and UAV to Improve Bridge Inspections

B. PRINCIPAL INVESTIGATOR(s) & UNIVERSITY(s):

Kevin Ahearn, PE, AECOM

C. WEB SITE ADDRESS (If one exists):

None

D. START DATE (Per NETC Agreement):

2/19/2021

E. END DATE (Per NETC Agreement):

3/31/2023

F. ANTICIPATED COMPLETION DATE:

3/31/2023

G. PROJECT OBJECTIVES:

Develop UAV-based inspection and analysis protocols using infrared thermal imaging to determine the existence and extend of concrete delamination, with emphasis on the underside of bridge decks.

H. REPORT PERIOD:

Quarter 3, 2021 (July 1 - September 30)

I. ACCOMPLISHMENTS THIS PERIOD:

Task 2 has been initiated. Field testing of handheld thermal cameras has been performed with data analysis in the early stages. The field testing for UAV/IR combinations has been scheduled.

J. PROBLEMS ENCOUNTERED (If any):

None

K. TECHNOLOGY TRANSFER ACTIVITIES:

None

L. STATUS BY TASK:

Task	Description	% Complete
Task 1	Desk scan of current technologies	100%
Task 2	Field demonstration of chosen IR/UAV models and data analysis	30%
Task 3	Develop inspection and analysis protocols	Not started
Task 4	Draft final report, technology transfer strategy, and toolbox	Not started
Task 5	Final report	Not started

M. PERCENT COMPLETION OF TOTAL PROJECT: 20%

N. ACTIVITIES PLANNED FOR NEXT QUARTER:

The following activities are anticipated for the next quarter:

- Task 2 will continue with field testing of UAV/IR combinations. Data analysis will continue. The Task 2 interim report will be developed.

O. FINANCIAL STATUS:

As of: *October 8th, 2021*

Total Project Budget: \$174,931.41

Total Expenditures: \$34,477.35

Note: This report should not require more than 2-3 pages & should be e-mailed to the NETC Coordinator so as to arrive no later than three (3) working days after the end of each calendar quarter.