

**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~~ 6/30/2023 (contract extended 3 months)

F. ANTICIPATED COMPLETION DATE:

~~3/31/2023~~ 6/30/2023 (contract extended 3 months)

G. PROJECT OBJECTIVES:

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

H. REPORT PERIOD:

1st Quarter, 2023

I. ACCOMPLISHMENTS THIS PERIOD:

Performed revisions to draft final report based on technical committee comments. Due to remaining funds, AECOM had discussions with technical committee to perform in-person demonstrations and initial training for state transportation agency staff (one day per state). The original contract will be extended to the end of June to support this additional work.

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	100%
Task 3	Develop inspection and analysis protocols	100%
Task 4	Draft final report, technology transfer strategy, and toolbox	100%
Task 5	Final report	50%

M. PERCENT COMPLETION OF TOTAL PROJECT: 90%

N. ACTIVITIES PLANNED FOR NEXT QUARTER:

The following activities are anticipated for the next quarter:

- Perform in-person demonstrations and initial training activities for New England transportation agency staff
- Revise Draft Final Report to incorporate training/demonstration activities
- Perform project close-out webinar

O. FINANCIAL STATUS:

As of: April 10th, 2023

Total Project Budget: \$174,931.41

Total Expenditures: \$141,070

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.