

TRANSPORTATION POOLED FUND PROGRAM QUARTERLY PROGRESS REPORT

Lead Agency (FHWA or State DOT): [California Department of Transportation \(Caltrans\)](#)

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> TPF-5(357)		Transportation Pooled Fund Program - Report Period: <input checked="" type="checkbox"/> Quarter 1 (January 1 – March 31) <input 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: Connecting the DOTs: Implementing ShakeCast Across Multiple State Departments of Transportation for Rapid Post-Earthquake Response			
Name of Project Manager(s): Yue Wang	Phone Number: 916-227-8349	E-Mail Yue.Wang@dot.ca.gov	
Lead Agency Project ID: Task ID 2949, Project ID P1132	Other Project ID (i.e., contract #): Contract # 65A0658	Project Start Date: 1/18/17	
Original Project End Date: 6/30/20	Current Project End Date: 9/30/20	Number of Extensions: 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
\$450,000	\$130,606.28	25%

Quarterly Project Statistics:

Total Project Expenses and Percentage This Quarter	Total Amount of Funds Expended This Quarter	Total Percentage of Time Used to Date
\$81,856.28	\$81,856.28	25%

Project Description:

The California Department of Transportation (Caltrans) is organizing and leading the Transportation Pooled Fund (TPF) project, "Connecting the DOTs: Implementing ShakeCast Across Multiple State Departments of Transportation for Rapid Post-Earthquake Response," study number TPF-5(357) (<http://www.pooledfund.org/Details/Study/609>). Ten State Departments of Transportation (DOT) have committed funds and are key partners on this multi-state DOT project.

ShakeCast is a web-based tool that delivers an assessment of potential impacts to highway structures within minutes of an earthquake, raising situational awareness and improving emergency response for executive decision makers, traffic management center operators, and maintenance staff.

This TPF project seeks to achieve two primary objectives. First, it will bring participating DOTs into full ShakeCast operation for post-earthquake assessment of state and local bridge inventories. Second, the project will provide a mechanism to actively engage representatives from state DOTs with common interests in implementing and expanding the application of ShakeCast technologies to improve emergency response capabilities.

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

- Initiated the execution of the contract for TPF project, "Connecting the DOTs: Implementing ShakeCast Across Multiple State Departments of Transportation for Rapid Post-Earthquake Response," study number TPF-5(357) (<http://www.pooledfund.org/Details/Study/609>). The work for this quarter focused on establishing Operational ShakeCast Systems for DOT Partners.
- Completed the surveys from all participating DOTs as part of Task 1.1-Capture DOT-Specific ShakeCast Deployment Requirements. DOT assets and goals were assessed and the technology for ShakeCast deployment were determined based on the IT environment and policy requirements of individual DOT's.
- The operational deployment solution for each participating DOT were identified after meeting with each DOT. The deployment options include a cloud-based deployment (on USGS cloud servers) and alternative installation options to fit the individual DOT's existing IT infrastructure

Anticipated work next quarter:

The following work is anticipated for next quarter:

- Continue the work in establishing Operational ShakeCast Systems for DOT Partners which include two subtasks:
 - Provide Interim Report on DOT-specific deployment requirements
 - Establish cloud-hosted ShakeCast systems
- Analyze the survey data collected from all the participating DOTs as part of Task 1.1-Capture DOT-Specific Shake Deployment Requirements. Continue the assessment of the existing IT environment and policy requirements for individual DOTs to figure out the technology alternatives for deploying the ShakeCast v3 system.
- Continue the identification of deployment options for the ShakeCast v3 system installation within the existing IT infrastructure of the individual DOTs. The options may include a cloud-based deployment (on USGS cloud servers) or other alternative installation options.
- Start the verification of the DOT-specific ShakeCast functionality

Significant Results:

Nothing to report at this time.

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).

Nothing to report at this time

Potential Implementation:

Nothing to report at this time.