

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 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 checked="" 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): Brian Chiou and Nathan Newell	Phone Number: 916-227-7151/916-227-8763	E-Mail Brian.Chiou@dot.ca.gov Nathan.Newell@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 (Rev. 10/23/17)	
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
\$420,000	\$48,750	11.6%

Quarterly Project Statistics:

Total Project Expenses and Percentage This Quarter	Total Amount of Funds Expended This Quarter	Total Percentage of Time Used to Date
\$48,750 (11.6%)	\$48.750	8.3%

Project Description:

The California Department of Transportation (Caltrans) is organizing and leading this TPF project in cooperation with ten State Departments of Transportation (DOT's) 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 DOT's 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.):**Contract Status**

The Caltrans contract (contract # 65A0658) with USGS was fully executed on November 1, 2017.

Meeting held with former Project Manager, Loren Turner to transfer contract management responsibilities to Brian Chiou and Nathan Newell with the Caltrans Division of Research, Innovation & System Information. Nathan Newell has recently joined staff at Caltrans Division of Research, Innovation & System Information, Office of Materials & Infrastructure and he will serve as co-project manager for this contract.

Progress

USGS Team has put ShakeCast internal (USGS) cloud instance up for each participating DOT's to access and that each DOT has a "card" on the ShakeCast Trello site. Also, USGS set up an Oregon DOT ShakeCast instance which was accessed for discussion, testing & configuration purposes and can be set up for other participating DOT's.

USGS submitted an extended abstract to the Eleventh National Conference on Earthquake Engineering (11NCEE). USGS would plan on attending the Los Angeles conference meeting in June 2018..

Conference call meetings were held in December, 2017 and scheduled for January, 2018 to be coordinated between USGS/Caltrans staff for meetings with CA-DOT (Caltrans), ID-DOT, OK-DOT and OR-DOT to accomplish goals of TPF Task 1.1 – Capture DOT-Specific Deployment Requirements. USGS sent out surveys to all participating DOT's to assess assets and goals as part of Task 1.1. As part of this survey, USGS conducted initial scoping to determine which participating DOTs will be running this in-house (likely Caltrans, OR-DOT, UT-DOT and WA-DOT) and other participating DOT's which may stay in the cloud (either via USGS or on your own). USGS to report out on these requirements and coordinate with Caltrans staff to figure out the best strategy for accomplishing this subtask work item. The ShakeCast Team has received deployment specification documents from California, Oregon, Oklahoma, and Idaho which were posted on the Trello web-based information sharing site and follow-up conference call with those four DOT's will be set up for the following quarter.

Anticipated work next quarter:

The following work is anticipated for next quarter:

- Full execution of the contract for the 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>).
- Receiving completed surveys from all participating DOTs as part of Task 1.1-*Capture DOT-Specific ShakeCast Deployment Requirements* to assess DOT assets and goals and determination of technology alternatives exist for deploying the current ShakeCast v3 system, depending upon the IT environment and policy requirements of individual DOT's.
- Begin selection of deployment options which could include a cloud-based deployment (on USGS cloud servers) with other alternative options for installation within the DOT's existing IT infrastructure. The various alternatives will be explored, and an operational deployment solution identified for each participating DOT after individual DOT meetings for all ten participating DOT's.

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).

Amendment No. 1 requested by USGS currently under review and consideration.

Potential Implementation:

Nothing to report at this time.