

## TRANSPORTATION POOLED FUND PROGRAM QUARTERLY PROGRESS REPORT

Lead Agency (FHWA or State DOT):           IOWA DOT          

**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.*

<b>Transportation Pooled Fund Program Project #</b> TPF-5(233)	<b>Transportation Pooled Fund Program - Report Period:</b> Quarter 1 (January 1 – March 31, 2016) X Quarter 2 (April 1 – June 30, 2016) Quarter 3 (July 1 – September 30, 2016) Quarter 4 (October 1 – December 31, 2016)
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**Project Title:**  
Technology Transfer Intelligent Compaction Consortium (TTICC)

<b>Project Manager:</b> Steve Megivern	<b>Phone:</b> 239-1936	<b>E-mail:</b> stephen.megivern@iowa.dot.gov
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<b>Project Investigator:</b> David White Pavana Vennapusa	<b>Phone:</b> 294-1463 294-2395	<b>E-mail:</b> djwhite@iastate.edu pavanv@iastate.edu
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<b>Lead Agency Project ID:</b> RT 0347	<b>Other Project ID (i.e., contract #):</b> Addendum 385	<b>Project Start Date:</b> 8/6/10
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<b>Original Project End Date:</b> 3/15/14	<b>Current Project End Date:</b> 08/30/2016	<b>Number of Extensions:</b> Ongoing pooled fund; interim budgets
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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	Total Percentage of Work Completed
\$349,000	\$342,322.67	ongoing

Quarterly Project Statistics:

Total Project Expenses This Quarter	Total Amount of Funds Expended This Quarter	Percentage of Work Completed This Quarter
\$10,314.71		

**Project Description:**

Increasingly, state departments of transportation (DOTs) are challenged to design and build longer life pavements that result in a higher level of user satisfaction for the public. One of the strategies for achieving longer life pavements is to use innovative technologies and practices. In order to foster new technologies and practices, experts from state DOTs, Federal Highway Administration (FHWA), academia and industry must collaborate to identify and examine new and emerging technologies and systems. The purpose of this pooled fund project is to identify, support, facilitate and fund intelligent compaction research and technology transfer initiatives.

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

- A TAC meeting was held June 1, 2016. The minutes from that meeting are attached.
- Many of the pooled fund partners indicated an interest in continuing a pooled fund, however, this PFS has reached its five year time period and will close out.
- State reps interested in continuing this pooled fund will survey other states as to the specifics for a problem statement.
- Three new tech briefs are completed this quarter and two of them are posted on the CEER-TTICC website. A draft of the Missouri Hwy 63 HMA project has also been completed, but is in review by MoDOT before posting the final version.
  - [http://www.intrans.iastate.edu/publications/documents/t2summaries/iowa\\_hwy\\_65.pdf](http://www.intrans.iastate.edu/publications/documents/t2summaries/iowa_hwy_65.pdf)
  - [http://www.intrans.iastate.edu/publications/documents/t2summaries/minnesota\\_TH\\_36.pdf](http://www.intrans.iastate.edu/publications/documents/t2summaries/minnesota_TH_36.pdf)

**Anticipated work next quarter:**

- Project is complete

**Significant Results:**

- Three new IC briefs.

**Circumstance affecting project or budget (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).**

**TAC committee (updated 7/1/15):**

<b>Representing</b>	<b>Name</b>	<b>Organization</b>	<b>Email</b>
Iowa State Univ	David White	ISU	djwhite@iastate.edu
	Pavana Vennapusa	ISU	pavanv@iastate.edu
California	Peter Vacura	Caltrans	peter.vacura@dot.ca.gov
	Haniel Chung	Caltrans	haniel.chung@dot.ca.gov
	James Lee	Caltrans	james_n_lee@dot.ca.gov
Georgia-2	Ian Rish	Georgia DOT	irish@dot.ga.gov
	Alfred Casteel	Georgia DOT	acasteel@dot.ga.gov
Iowa-2	Stephen Megivern	Iowa DOT	stephen.megivern@dot.iowa.gov
	Melissa Serio	Iowa DOT	melissa.serio@dot.iowa.gov
	Peggi Knight	Iowa DOT	peggi.knight@dot.iowa.gov
	Scott Schram	Iowa DOT	scott.schram@dot.iowa.gov
	Jeffrey Schmitt	Iowa DOT	jeffrey.schmitt@dot.iowa.gov
Kentucky	Adam Ross	KyDOT	adam.ross@ky.gov
	David Hunsucker	Univ Ky	David.Hunsucker@uky.edu
	Clark Graves	Univ Ky	clark.graves@uky.edu
	Brad Rister	Univ Ky	brad.rister@uky.edu
	Kean Ashurst	Univ Ky	kean.ashurst@uky.edu
Missouri-2	William Stone	MoDOT	william.stone@modot.mo.gov
	Kevin McLain	MoDOT	kevin.mclain@modot.mo.gov
Ohio	Craig Landefeld	OhDOT	Craig.Landefeld@dot.state.oh.us
	Stephen Slomski	OhDOT	stephen.slomski@dot.state.oh.us
Pennsylvania	Daniel Clark	PennDOT	danielclar@pa.gov
	Lisa Tarson	PennDOT	ltarson@pa.gov
Virginia	Edward Hoppe	VaDOT	edward.hoppe@vdot.virginia.gov
	Jed Peters	WisDOT	jed.peters@dot.wi.gov
	Girum Merine	WisDOT	Girum.Merine@dot.wi.gov
FHWA	Fred Faridazar	FHWA	fred.faridazar@fhwa.dot.gov
	Max Grogg	FHWA-Iowa	max.grogg@dot.gov

## Meeting Minutes

### TTICC Web Meeting: TPF-5(233)

June 1, 2016 (1:00 pm Central Time)



Present?	Representing	Name	Organization	Email
x	Iowa State Univ	David White	ISU - CEER	djwhite@iastate.edu
x		Pavana Vennapusa	ISU - CEER	pavanv@iastate.edu
x		Sharon Prochnow	ISU - CEER	prochnow@iastate.edu
x	California	James Lee	Caltrans	james_n_lee@dot.ca.gov
		Haniel Chung	Caltrans	haniel.chung@dot.ca.gov
	Georgia	Ian Rish	Georgia DOT	irish@dot.ga.gov
		Alfred Casteel	Georgia DOT	acasteel@dot.ga.gov
x	Iowa	Stephen Megivern	Iowa DOT	stephen.megivern@dot.iowa.gov
x		Melissa Serio	Iowa DOT	melissa.serio@dot.iowa.gov
		Scott Schram	Iowa DOT	scott.schram@dot.iowa.gov
x		Jeffrey Schmitt	Iowa DOT	jeffrey.schmitt@dot.iowa.gov
x		Brian Worrel	Iowa DOT	brian.worrel@dot.iowa.gov
x	Kentucky	Adam Ross	KYTC	adam.ross@ky.gov
		David Hunsucker	Univ Ky	David.Hunsucker@uky.edu
		Clark Graves	Univ Ky	clark.graves@uky.edu
		Brad Rister	Univ Ky	brad.rister@uky.edu
		Kean Ashurst	Univ Ky	kean.ashurst@uky.edu
x	Missouri	Kevin McLain	MoDOT	kevin.mclain@modot.mo.gov
		William Stone	MoDOT	<a href="mailto:william.stone@modot.mo.gov">william.stone@modot.mo.gov</a>
x	Ohio	Stephen Slomski	OhDOT	stephen.slomski@dot.state.oh.us
		Craig Landefeld	OhDOT	Craig.Landefeld@dot.state.oh.us
x	Pennsylvania	Daniel Clark	PennDOT	danielclar@pa.gov
x		Sherry Little	PennDOT	slittle@pa.gov
		Lisa Tarson	PennDOT	ltarson@pa.gov
	Virginia	Edward Hoppe	VaDOT	edward.hoppe@vdot.virginia.gov
	Wisconsin	Girum Merine	WisDOT	Girum.Merine@dot.wi.gov
x	FHWA	Michael Arasteh	FHWA	Michael.Arasteh@dot.gov
		Sean Litteral	FHWA-Iowa	sean.litteral@dot.gov
		Antonio Nieves	FHWA	Antonio.Nieves@dot.gov

#### 1. Welcome and updates of IC activities:

- The purpose of this meeting was to wrap-up the deliverables schedule and update the activities
  - TTICC Video update: over 2,000 viewers in the past 3 months
  - Pennsylvania indicated it is being used for training in PA
- The pooled fund states were called upon individually for updates on IC projects in their states.

#### CalTrans:

- Since 2014 there have been 64 projects using IC technology

- Presently 19 projects in the “pipeline” with 6 in contracts
- A PowerPoint presentation on TSD data was presented. James Lee feels TSD can be critical to the pavement management system

**Georgia DOT:** Not present.

**Iowa DOT:**

- 1 full depth HMA new road project upcoming.
- Not full IC, but using roller pass mapping and IR scanner.
- IaDOT will use this project as showcase for other contractors.

**Kentucky DOT:**

- First IC project completed with 6 others planned; 2 asphalt/soil; 4 other asphalt
- SHRP2 grant for additional projects with an IR scanner
- Spec didn’t require real-time data; on short projects getting data a day later is too late to make significant changes
- New specs will be written to include need for real-time data; contractor will provide laptop with only a 5-10 minute delay.

**Missouri DOT:**

- Several individuals went to Alabama to discuss writing a specification.
- No big grading projects at present.
- Thermal IR scanner will be used on several projects.

**Ohio DOT:** No IC projects planned.

**Pennsylvania DOT:**

- 6 projects (asphalt); some are continuation from last year
- Reviewing data mid-way and can make mid-stream changes for the remainder of the project
- 2 projects have soil elements. Fill is a problem; most PA subgrade fill material scraped from the side of a mountain, so there is a lot of variability in material and compaction.
- PA has 6 contractors with IC equipment so their increasing experience will help the projects
- Suggested that PA share the locations with FHWA of the projects so that interested parties could visit.

**Virginia DOT:** Not present.

**Wisconsin DOT:** Not present.

**FHWA:**

- Working with Turner-Fairbanks on identifying projects for imbedding sensors for CHIT evaluations.
- Implementation of IC is a focus area.

## **2. 2015 Workshop Report**

- The workshop is available online. <http://www.intrans.iastate.edu/research/documents/research-reports/2015-TTICC-workshop-report.pdf>
- Work flow process of linking specs, including a draft org chart is included in the workshop report. If a high resolution PowerPoint version of the work flow process is needed, contact Sharon Prochnow (prochnow@iastate.edu).

## **3. IC Tech Briefs**

- 19 have been completed and posted on CEER-TTICC website.
- Information from 2 recent projects where IC was implemented (Georgia and Alaska) was requested, but not received.
- 3 more tech briefs underway and will be finished as part of this project (prior to June 30).

## What's next for TTICC

- IADOT report the funds transferred for 2016 have been returned
- This pooled fund project ends June 30<sup>th</sup>
- Options from the February meeting were reviewed
  - Option 1: Wrap up current TPF June 2016 and not continue.
  - Option 2: Reinstate TTICC scope under new TPF number (because longer than 5 yrs)
  - Option 3: New TPF with broader scope to focus on implementation of pavement foundation mechanistic design/assessment with IC as important element for QC/QA. Perhaps with focus on specification development and training workshops.
  - Option 4: Other?
- Dave indicated the next big challenge is specs; especially within the mechanistic realm.
- IC is here to stay and the TTICC program has been effective in supporting IC
- Several states indicated an interest in continuing the PFS
- Regroup with an expanded scope for a new PFS is recommended
- Brian Worrel (lead state) said Iowa will continue with close-out activities for this pooled fund.
- Adam Ross from Kentucky indicated he would send out a survey to the TTICC members regarding their interest and scope.

