



RAC-CUTC Collaboration

Workplan Status Update



RAC CUTC Liaison Group (RCLG)

- RAC-CUTC relationship has evolved over the past several years.
- Establishment and continuation of the UTC program since 1987 prompted RAC to consider how to be involved with UTC universities and CUTC in general
- First invitation to national RAC meeting in 2006, Columbus, Ohio
- Sandra Larson asked Wes Lum to form a RAC-CUTC liaison group
- First meetings April 2010/July 2010 (Kansas City)

Work Plans

- 2010-2011
 - (1) Discussion of ~~the need for~~ national research agendas;
 - (2) Development of examples of successful partnerships between RAC and CUTC members;
 - (3) Development of guidelines on facilitating successful agreements between RAC and CUTC members in other states; and
 - (4) Sharing and disseminating information about the mission, goals, objectives, and activities of both organizations.



Work Plans

- 2012-2013 (Amended)
 - (2, 3) Identifying practices to facilitate successful partnerships between RAC and CUTC members;
 - (4) Opportunities to improve access to information on RAC and CUTC member missions, goals, objectives, activities, and research results;
 - (5) Development of guidelines on the scoping of Requests for Proposals; and
 - (6) Development of guidelines for the quality of research reports.



Actions taken to support Workplans

- Regular schedule of meetings established (RAC and TRB AMs) (4)
- Alter CUTC member listing web page to provide direct links to each member institution's center (4)
- CUTC members are invited to the national RAC meeting (4)
- RAC members are invited to the national CUTC meeting (4)
- CUTC members are eligible to participate on RAC Task Forces as non-voting "friends" (4)



Actions taken to support Workplans

- 1st RCLG sponsored session at the 2011 RAC meeting in Salt Lake City (4)
 - TRB policy study on national frameworks for transportation research (scheduled completion summer 2013) – Dave Huft (1)
 - Development of a national research agenda by FHWA’s RD&T office – John Moulden (1)
- Development of the “Top 10 requirements for a successful state-UTC partnership” (2) - Sue Sillick and Jason Bittner
- Developed and conducted a survey of UTCs and RAC members to compile information on successful agreements (2, 3) - Leni Oman, Wes Lum, and Shashi Nambisan



Actions taken to support Workplans

- 2012 TRB session presented case studies of successful RAC-CUTC member partnerships as well as successful agreements between DOT and universities in different states (2, 3) - Leni Oman, Sue Sillick, Shashi Nambisan
- Examination of problems associated with research reports submitted by university-based transportation researchers to state DOT research sponsors (6) – Leni Oman, Steve Pepin, Shashi Nambisan, Martin Pietrucha
- Research scoping and development of RFPs (with RAC Program Management and Quality Task Force) (6) - David Jared, Mike Bonini, Martin Pietrucha
- White paper on successful partnerships (2, 3) – Daniel Yeh



Actions taken to support Workplans

- Added section to the SCOR/RAC website for the RAC/CUTC Liaison Group (4)
- Presentation at the 2013 TRB AM RCLG meeting by Maggie Griscavage, Director, Office of Grants & Contracts Administration at the University of Alaska Fairbanks and officer in National Council of University Research Administrators on what drives university contractual issues on a long-term or short-term basis (2, 3) – Daniel Yeh
- Quantifying and qualifying the impact of a research center's research output – Martin Pietrucha





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The RAC/CUTC Liaison Group

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The RAC/CUTC Liaison Group

The RAC/CUTC Liaison Group was formed to foster collaboration and cooperation between the AASHTO Research Advisory Committee and the Council of University Transportation Centers through a better understanding of how RAC and CUTC operate.

[Memorandum of Understanding](#)

[Workplan](#)

[Membership Roster](#)

Products

[Additional Analysis and Categorization of DOT-University Partnership Survey Results](#)

[Top 10 Characteristics of a Successful DOT-University Partnership](#)

[Directory of UTCs by RAC Region](#)

[Survey on State University Partnerships and Agreements](#)

[Summary Sheets on DOT Research Capabilities](#)

Meeting Notes

2012

[RAC-CUTC Liaison Group Meeting Notes: July 23, 2012](#)

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AASHTO RAC MEMBER SURVEY RESULTS

Title: State University Partnerships and Agreements

Survey Details/Results: This survey was conducted in April 2011 by the AASHTO Research Advisory Committee (RAC) and the Council of University Transportation Centers (CUTC). RAC and CUTC have formed a liaison group to foster collaboration and cooperation between the two groups. The RAC-CUTC Liaison Group has developed a work plan to pursue activities of common interest.

One of those work plan elements is to develop examples of successful partnerships between RAC and CUTC members. Ultimately, the intent of the RAC-CUTC Liaison Group is to develop a series of case studies and identify criteria for successful state DOT – university partnerships. Another work plan element is to develop guidelines on facilitating successful agreements.

The purpose of this survey was to discover what kinds of partnerships and agreements exist between state DOTs and University-based Transportation Centers (UTCs). The results of this survey are summarized in the following Excel spreadsheets:

[RAC Responses to State University Partnerships and Agreements Survey](#)

[UTC Responses to State University Partnerships and Agreements Survey](#)

[Summary of RAC-CUTC Partnerships Survey](#)

[Successful Partnerships Survey \(Powerpoint\)](#)

[Top 10 Characteristics of a Successful DOT-University Partnership](#)

[Additional Analysis and Categorization of Survey Results](#)

Contact Information: This survey was conducted by the RAC-CUTC Liaison Group.

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AASHTO Research Advisory Committee / Council of University Transportation Centers

Additional analysis / categorization of RAC / CUTC partnerships survey data from April 2011
Compiled September 2012

Background

In April 2011, RAC and CUTC conducted a joint survey of members to review issues relating to state DOT / UTC partnership issues. The survey received responses from 35 state DOTs and 26 CUTC members, with the full results compiled on the RAC Web site at <http://research.transportation.org/Pages/RACSurveysofPractice.aspx> and at ftp://ftp.mdt.mt.gov/research/other/rac-cutc_surveys/. The summary results include the "Top 10" criteria to establishing successful partnerships.

The goal of this additional analysis of that prior work is to provide further utility to the results by categorizing them based on the status of the partnership between a state and UTC:

- Considering a partnership – no partnership currently exists between the state DOT and any UTC
- Project-by-project partnership – the state DOT may contract with a UTC for a specific research project, often through a competitive RFP or occasionally through direct negotiation.
- Program partnership – the state DOT and UTC are linked through some type of program connection, such as a specific or guaranteed level of funding support by the state DOT to the UTC or a multi-year master agreement. However, the state DOT typically directs the research needs and projects.
- Collaborative partnership – the state DOT and UTC collaborate on all functions, including idea generation, project selection and financial programming, with intermingling of funding between the two parties.

By sorting the survey findings into these categories, state DOTs and UTCs may be able to better identify where their organization or relationship exists in the spectrum and the opportunities and steps needed to move to a higher partnership level, if so desired.

Considering a partnership	Project-by-project partnership	Program partnership	Collaborative partnership
<i>Description:</i> The state DOT and UTC do not have any interaction on a project or program level.	<i>Description:</i> The state DOT contracts with the UTC for individual projects, usually through a competitive RFP process.	<i>Description:</i> The state DOT and UTC have a program-level partnership through which contracts may be awarded outside of a competitive RFP process or state funding is specifically programmed to support the UTC.	<i>Description:</i> The state DOT and UTC have an institutional-level partnership with joint collaboration on determining research needs, conducting research and implementing research results.

State Departments of Transportation work together with **University Transportation Programs** to address critical research needs. As the primary stewards of the highway system, the state DOTs must deal with a range of technical, social, economic, and environmental **issues** to deliver top quality **service** to the travelling public. The university-based transportation centers have the capacity to conduct **research** on a wide range of topics, as well as a responsibility to develop the next generation of highway professionals.

The **synergistic relationship** between these two communities can help to ensure the best available **expertise** is directed at our nation's transportation research and **workforce** development needs. This document identifies characteristics that enable these partnerships to achieve their **full potential** and ensure resources are used in the most **efficient and effective** manner possible.

Top 10 Characteristics of a Successful DOT- University Partnership

AMERICAN ASSOCIATION OF
STATE HIGHWAY AND
TRANSPORTATION OFFICIALS

AASHTO
THE VOICE OF TRANSPORTATION



The RAC-CUTC Liaison Group provides a forum to enhance coordination, cooperation, and communication among state Departments of Transportation and university transportation centers. The Top 10 Characteristics in this document were derived from an informal survey of RAC and CUTC members. A few state DOTs and CUTC members shown to have strong partnerships were chosen to provide quotes based on the Top 10 Characteristics. For more information on state-university partnerships and agreements, see: <http://research.transportation.org/Pages/StateUniversityPartnershipsandAgreements.aspx>.



AASHTO Region 1

Carnegie Mellon

Rutgers University

Massachusetts Institute of Technology

City University of New York

Penn State University



Carnegie Mellon

Technologies for Safe and Efficient Transportation

<http://utc.ices.cmu.edu/>

Directors: Raj Rajkumar, T-SET Director, raj@ece.cmu.edu, 412-268-8707
Dan Lee, T-SET Penn Director, ddlee@seas.upenn.edu, 215-898-8112
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Themes: Safety

Research/Projects:

Technologies for Safe and Efficient Transportation (T-SET) has a long term vision of "vehicles that do not crash." T-SET has five different thrust areas they are exploring to help increase safety:

1. In Vehicle Technologies. In this area we are working on ways to make vehicles safer from the inside including: Automatic Recognition and Understanding the Driving Environment for Driver Feedback
<http://utc.ices.cmu.edu/utc/Hebert%20project%20description.pdf>, Sensory Augmentation for Increased Awareness for Driving Environment
<http://utc.ices.cmu.edu/utc/Rybski%20project%20description.pdf>, V2V for Safe Intersections <http://utc.ices.cmu.edu/utc/Tonguz%20project%20description.pdf>
2. Smart Infrastructure. This is an area that will not only help the driver of the vehicle but also will help keep up road maintenance. These projects include: Smart Parking <http://utc.ices.cmu.edu/utc/Hampshire%20project%20description.pdf>, Continuous Road Surface Distress Detection
<http://utc.ices.cmu.edu/utc/Mertz%20project%20description.pdf>, Bridge Monitoring
<http://utc.ices.cmu.edu/utc/Garrett%20edited%20project%20description.pdf>, Smart Camera Infrastructure(no link available), and Automated Vehicle Type Recognition (no link available).



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State DOT Research Unit Fact Sheets

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State DOT Research Unit Fact Sheets

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- [California](#)
- [Colorado](#)
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Alaska Department of Transportation & Public Facilities
Division of Design & Engineering Services
Research, Development, & Technology Transfer Section

Who we are

The Research, Development, & Technology Transfer (RD&T2) Section is a small, service-based organizational component within the Division of Design & Engineering Services of the Alaska Department of Transportation & Public Facilities (AKDOT&PF).

What we do

RD&T2 is the AKDOT&PF's key resource for developing Alaska's transportation workforce, and incorporating technology and innovation into the department's practices. The RD&T2 Section provides the following services on a statewide basis:

- Development and maintenance of AKDOT&PF's research and technical training programs.
- Facilitation of research need identification.
- Research project management.
- Administration and management of the Federal Highway Administration's Local Technical Assistance Program.
- Facilitation of implementation of research results.
- Identification, evaluation, development, and promotion of promising technologies and opportunities to improve transportation practices in Alaska.
- Workforce Development through provision of:
 - Training
 - Technical Assistance
 - Communication and Outreach
 - Library Services
- Development and maintenance of collaborative research, technology transfer, and funding partnerships.

How we are funded

Most of the research activities of AKDOT&PF's RD&T2 are partially or fully funded through the federal State Planning & Research Part 2 (SPR2) dollars (23.CFR.420), administered by the Federal Highway Administration (FHWA) in the United States Department of Transportation (US DOT). The State of Alaska also provides state funding for our activities and we leverage this funding and resources with the Alaska University Transportation Center, other universities, local governments, and private sector transportation interests. In combination, our efforts leverage over \$3 million of investment annually.

Get Alaska Moving Through Service and Infrastructure

Staff, facilities and contacts

The RD&T2 program is based in the "McKinley Building", housing Northern Region AKDOT&PF offices in Fairbanks, Alaska. Full-time RD&T2 Section staff includes 2 Research & Development Engineers, a Technology Transfer Program Manager, a Training Specialist, an Administrative Assistant, and a section Chief. The section retains the services of a professional Librarian at the Keith B. Mather Library in the first floor of the International Arctic Research Center at the University of Alaska Fairbanks. Our librarian oversees the Alaska Transportation Library which contains over 40,000 books, periodicals, and unique resources pertaining to transportation in cold climates.

The section also houses a communications professional whom we jointly fund with the Alaska University Transportation Center (AUTC). AUTC is headquartered at the Fairbanks University of Alaska (U of A) campus with Associate Directors at the Anchorage and Juneau U of A campuses. Periodically, the section employs college and student interns from Alaska's high schools and college campuses.

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Get Alaska Moving Through Service and Infrastructure

Any comments from
those who worked on the projects?

Any questions from
the audience?

Additions to the Workplan

- Briefing paper on how universities and DOTs work together to develop contract terms
- Quantifying and qualifying research output
- Broader dissemination of RFPs

