



Peer EXCHANGE CONFERENCE

September 19-21, 2006





Introduction

The Hawaii Department of Transportation, Highways Division, Materials Testing and Research Branch, hosted a Research Program PEER Exchange Conference during September 19-21, 2006. The members of its PEER Exchange Team included:

- Casey Abe, Engineering Program Manager, Materials Testing and Research Branch, Highways Division, Hawaii Department of Transportation
- Steven Ege, Research and Technology Transfer Section Head, Materials Testing and Research Branch, Highways Division, Hawaii Department of Transportation
- Susan “Sue” Sillick, Research Program Manager, Montana Department of Transportation
- Tie He, Research Division Chief, Nevada Department of Transportation
- Domingo Galicinao, Structural Engineer, FHWA Hawaii Division
- Franci Terada, Research and Technology Transfer Unit Head, Materials Testing and Research Branch, Highways Division, Hawaii Department of Transportation

*Learning from
one another,
exchanging ideas,
identifying
challenges*

The objectives of the peer exchange process were to:

- Learn how the Hawaii Department of Transportation manages and conducts their Research, Development and Technology Transfer (RD&TT) Program; also to learn how Montana and Nevada DOTs manage and conduct their RD&TT Programs.
- Exchange information among members of the exchange team and others involved in the peer exchange.
- Identify ideas that each member of the peer exchange team can practically apply in his or her own organization.
- Identify successes in managing a research program with limited resources and manpower.
- Exchange information on ways to implement research results.

To prepare for the peer exchange, the team reviewed documentation describing HDOT’s RD&TT Program. Sue, Tie, Franci and Steven gave PowerPoint Presentations to all attendees on their RD&TT Program, explaining their program’s guidelines and procedures. After each presentation, a question & answer session was provided for all attendees to ask more specific and detailed questions about each program’s guidelines and procedures. Personnel from the following offices attended the presentations and question/answer sessions.

- Harbors Division
- Airports Division
- State Department of Health
- Highways – Construction and Maintenance Branch
- Highways – Traffic Branch



- Highways – Hydraulic Design Section
- Highways – Rights-of-Way Branch
- Highways – Oahu District Office
- Highways – Bridge Design Section
- Highways – Planning Branch
- Highways – Research & Technology Transfer Section
- Highways – Structural Materials Section
- Highways – Geotechnical and Pavement Design Section
- University of Hawaii, Department of Civil and Environmental Engineering

The team also interviewed the Deputy Director of Transportation – Highways, Mr. Brennon Morioka and the Highways Division Administrator, Mr. Glenn Yasui, on Wednesday morning, September 20, 2006 to obtain their views and thoughts on the HDOT, Nevada, and Montana RD&TT Programs.

The final report will be presented to the Deputy Director of Transportation – Highways and the Highways Administrator at the next divisional staff meeting in October 2006.

Participants exhibited an appetite for knowledge gained through the research program.

Strengths of the Research Program

During the exchange, the team noted several strengths at the Hawaii Department of Transportation:

- Top management supports the need for and recognizes the benefits of a viable research program.
- There exists a long standing Research Advisory Committee (RAC) with a diverse membership.
- Participants exhibited an appetite for knowledge gained through the research program.
- Participants were willing to implement new ideas and programs.
- Strong relationships exist among HDOT, FHWA Hawaii Division, and the University of Hawaii personnel.
- Providing Engineer Interns to assist U.H. Research Projects helps to reduce the overall cost of individual projects and gives interns valuable work experience.
- There is a willingness to partner with other Divisions, State Departments and/or outside entities.



- Importance of implementation is widely recognized in the Department and everyone involved in the research program.
- The HDOT and FHWA Hawaii Division have been successful in obtaining additional research funding from sources besides the SPR program.

Opportunities for Success

- Update the research procedures manual to document improvements to the research program (i.e. implementation, project management, project solicitation, and marketing).
- Reorganize the HDOT research section (HWY-LR) to provide dedicated staff to the research program.
- Immediately develop interim procedures and assign a full time person to the administrative requirements of the research program to provide relief of non-technical project duties (i.e. report submittal, request for contract renewal, and invoice payment) for project managers.
- Prepare an annual report on the research program.
- Establish a research website.
- Involve top management in the research process (i.e. approve project list recommended by the RAC).
- More actively engage the Technical Advisory Committee from proposal through implementation.
- Use marketing tools to increase visibility of the research program (i.e. project summary report, results of implementation, and workshops to showcase and implement research results).
- Add requirement in the research contract to have researchers write newsletter articles on their research project when requested.
- Develop a process for implementing and tracking new products. Use experimental features program to field test new products.
- Investigate opportunities for streamlining the contracting process both at the HDOT and University of Hawaii.
- Establish an on-line library.

*Opportunities for
success enable us
to grow.*



Individual Perspectives and Planned Actions

Peer exchange team members plan to apply information and ideas gained from this peer exchange in their own organizations:

Susan “Sue” Sillick – Montana Department of Transportation

1. Update MDT Research Programs overview presentation.
2. Obtain Tie He’s implementation survey template.
3. Formalize implementation, including a process to review implementation after the research is complete; develop forms, templates, processes, and policies.
4. Consider implementing a minimum requirement for periodic technical panel meetings.
5. Give Casey MDT Research Project URL to share with peer exchange participants and others
6. Obtain information on HDOT recycled materials and traffic noise analysis and assessment research projects.
7. Share mechanistic design project information with HDOT when done. Also, share information on MDT noise research project with HDOT

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Tie He – Nevada Department of Transportation

1. Update NDOT Research Manual to document “off-cycle” research project approval process, contracting process, research implementation requirements, strategic planning, and program evaluation activities.
2. Discuss with NDOT top management on feasibility of using SPR planning funds rather than the RDT funds (part II) to pay for NCHRP. In addition to SPR and state funds, look into possibilities of using other alternative funding (particularly federal funding programs) for research projects.
3. Knowing that Hawaii DOT uses 3.5% indirect cost rate and Montana DOT uses 20% indirect cost rate for their contracts with universities, conduct a survey of the national RAC members on their indirect cost rates for university contracts. Negotiate with



Nevada universities (using the survey results as bases) to lower their current indirect cost rate (45%) for NDOT research projects.

4. Continue to stress the importance of research implementation in the research process.
5. Produce a report of research achievements to be presented to NDOT Research Management Committee and Research Advisory Committee at their annual meetings to ensure their continuing support for the research program, and distribute the report to all research customers.
6. At the end of each research project, conduct an “exit” project panel meeting to discuss and ensure research implementation.
7. Ask NDOT project principal investigators to prepare a project summary report (with reference to Montana DOT’s format) to be distributed to all potential readers.
8. Continue to look for new ways to address NDOT research needs, to provide incentives for research champions, and to improve research customer satisfaction.

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Domingo Galicinao – FHWA Hawaii Division

1. Consider developing an annual showcase where you would have possibly poster sessions or presentations to showcase the research projects and to report on “top accomplishments” each year to show the benefits of research to the department.
2. You may also use this annual event to bring all the research stakeholders together for a research brainstorming event. This insures that practical, implementable and needed research continues to be produced for the department.
3. Work with technical staff to form teams and provide support for scanning tours in appropriate States to learn new technology and document best practices for implementation. Activity qualifies for 100% federal funding.
4. Look for ways to improve priority ranking process and evaluation criteria for selecting candidate research projects.
5. Work with research, bridge design and fiscal services staff to improve procedures for selecting and programming candidates for the IBRC program.



6. Continue to encourage FHWA Division Office staff participation in technical panels with focus on assisting in implementation efforts.
7. FHWA can look for ways to help support alternate funding source(s) for LTAP.

Steven Ege – Hawaii Department of Transportation

1. Research Unit to perform all administrative (non-technical) tasks for all research projects.
2. Dedicate existing staff to the research program (i.e. track projects status, improve communications with project managers and researchers, etc.)
3. Prepare project summaries and closeout presentations.
4. Develop documentation process for implementation.
5. Develop an approval process for off-cycle & pool-funded projects.
6. Improve communications with Division's Project Management Staff (HWY-SM).

“The Peer Exchange provided an excellent opportunity for sharing information, ideas and concerns.”

Casey Abe – Hawaii Department of Transportation

The Peer Exchange provided an excellent opportunity for sharing information, ideas and concerns. A number of beneficial ideas were identified:

1. Update existing 2004 Research, Development and Technology Transfer (RD&TT) Guideline Manual.
2. Work with HWY-S and the MTRB personnel on reorganizing the branch to provide the right type and number of personnel to HWY-LR.
3. Assist HWY-LR on implementing the opportunities for success.