

October 2003 MaineDOT Research Peer Exchange

On October 15 – 17, 2003 the MaineDOT Research Program held a peer exchange. The purpose of this exchange was to gain knowledge of the activities that the research program is doing well and to identify opportunities for the research program. The Peer Exchange team included the following:

Craig Abernathy	Montana DOT
Stephen Maher	Transportation Research Board (TRB)
Glenn Roberts	New Hampshire DOT
James Sime	Connecticut DOT
Nick Vitillo	New Jersey DOT
Dale Peabody	Maine DOT
John Perry	FHWA Maine Division



Figure 1 - Team members at Advanced Engineering Wood Composites Center. From left to right : Stephen Maher, Jim Sime, Dale Peabody, Glenn Roberts, John Perry, Craig Abernathy. Absent from photo is Nick Vitillo who participated via phone conference. Thanks Nick!

A theme or focus area for this exchange was to follow NCHRP Synthesis 280, Seven Keys to Building a Robust Research Program. These keys are:

1. Found it on trust – Ensure a trusting relationship between research unit and department.
2. Market Boldly – Marketing needs to be an essential part of the research process.
3. Root it in Economics – There needs to be an economic rationale for the programs and projects and their justification.
4. Make Deals Unabashedly – Programs can be enhanced by establishing relationships with other research entities.
5. Insist on Accountability – Have top managers set the strategic direction for research to ensure alignment with department goals.

6. Embrace Policy Research – This type of research ensures communications between top management and research unit.
7. Empower the Staff – Provides a climate for successful delivery of research projects.

The Team interviewed Department staff and researchers from the University of Maine to gain insights into the research program from numerous perspectives. The list of participants is included in the back of this report. Results from these interviews and team observations are presented in this report under two broad categories: Strengths and Opportunities. The next step will involve implementation of those “opportunities” that provide the best chance for improving the overall research program as defined by the Seven Keys. Prioritization will be completed by the MaineDOT Research Advisory Committee.

Strengths:

- Research program is involved with broad range of issues including policy areas.
- There is targeted research in the form of Problem Solving for interested internal customers. This type of quick hitting research is deemed the most helpful by some of the Department staff.
- There is ease of internal communication because of the size of MaineDOT.
- Research does well working across Bureau/Office boundaries.
- The Research Program has good awareness of MaineDOT needs.
- The Research Program is beginning to conduct some economic analysis – one of the seven keys to a robust program.
- Research unit has over time nurtured a relationship of trust by delivering on commitments and promises.
- MaineDOT partners with other universities (WPI) in order to address research needs that UMaine cannot.
- UMaine has a talented and diverse staff that is interested in doing transportation research.
- Maine DOT has a good research relationship with UMaine Department of Civil and Environmental Engineering including the Advanced Engineering Wood Composites Center (AEWC).
- Because of its success with MaineDOT, the AEWC is interested in working with other state DOT’s.
- The AEWC has full time technicians that allow center the flexibility to respond quickly to testing needs of customers.
- The AEWC draws research expertise from numerous university departments including mechanical and electrical engineering, business, etc.
- Maine DOT Research does more than conduct or contract for research projects. In general terms, the mission of every research organization is to facilitate the implementation of value-added quality solutions in a timely manner utilizing education, experience, and professional practice to aid in developing a world-class transportation system in their state.

Opportunities:

- Marketing of research should be ongoing throughout research process. At the research problem statement solicitation process effective marketing will encourage higher quantity and quality of submittals. At the project idea inception stage the proposers and research unit should look at marketing potential. During the research periodic progress meetings with the principal investigators could lead to marketing opportunities.
- Research should explore ways to better maintain connection with front office and policy makers. This will assist with two of the seven keys - Insist on Accountability and Embracing Policy Research.
- It was suggested that marketing be done in a fashion that makes the success implicit and gives credit to the team. In other words toot your horn but not too loud.
- Research should consider including a check off box for “Interest of public” in the Research Problem Statement submittal form. This may lead to Department marketing efforts to improve public perceptions.
- Research should consider assembling periodic showcases to RAC, DOT staff and others in order to promote research efforts. Consider inviting legislative members.
- Research should consider conducting market research for the Department. This takes advantage of existing expertise in research unit and meets a need of ongoing Department marketing or branding efforts.
- Research should construct a follow up record keeping process and make summary reports available to the Research Advisory Committee and other customers.
- Through research solicitation process market program to potential external customers.
- Conduct quarterly progress report meetings, similar to NJDOT. Formalize by making this part of the contract. Routinely notify everyone in Maine DOT (the universities, industry organizations, and other State agencies) of the quarterly meetings.
- Conduct final report presentation to administration, similar to Montana DOT.
- Market through email, press release.
- Explore expanding use of the RFP process to gain higher quality and more timely research.
- Investigate a research relationship with New Brunswick DOT.
- Meet with Department chairs at the University to broaden research activities beyond traditional areas. For example, the storm water issues may be addressed through George Mitchell Center
- Consider including outside agencies on Research Advisory Committee
- Provide “technology scanning” reviews on areas such as transit AVL. Take advantage of “technology scanning” already completed by others.
- Facilitate targeted peer exchanges for other units within DOT.

- Promote the possibility of pooled fund or partnership type projects with other in-state agencies, associations, etc. Example used was “smart growth”.
- Conduct research to determine best practices on multimodal security (transit systems and centers, ferry terminals, etc.)
- Potential NETC submittal on feasibility of a New England smart card.
- Consider programming SP&R funds to provide for travel to TRB and other conferences. Require reporting from those that travel.
- Work with Office of Environment to flesh out the storm water issues and develop more effective research relationship with George Mitchell Center.
- Use TRD website more effectively to report progress of projects, similar to Montana DOT.
- Include copy of research problem statement submittal on newsletters.
- Prepare a University researcher contact list or directory that includes areas of expertise and interest to share with practitioners in order to match needs.
- Assist the Advanced Engineering Wood Composites Center in investigating the AASHTO NTPEP has a potential source of laboratory testing of products.
- Use UMaine Multimedia office to prepare marketing tools (streaming media, brochure, website, annual report, etc.) for research results. Also consider using other university department for market research to determine effectiveness of tools.
- The use of streaming media, as demonstrated by ConnDOT, should be explored to provide means of marketing research results.
- Investigate research partnership with University of Southern Maine Land Use Office on issues such as smart growth, access management, and secondary impacts.
- Consider scripted video and brown bag lunches to promote research and implementation of research findings.
- Opportunity to market the research unit's ability to gather and analyze information from targeted AASHTO Research Advisory Committee Listserv surveys.
- Promote and track implementation of research products.
- Prepare short Tech Brief to targeted audience within Maine and in other States. For example Maine has more experience than most states on wood composites and other structural wood products. Tell the world.

Guest State Take Home Items: (James Sime, P.E. Connecticut DOT)

- Utilize marketing efforts to broaden the base of knowledgeable personnel within the agency
- For surveys that Connecticut needs to conduct, consider using RAC listserv to only gather list of contacts; then telephone contacts and conduct a telephone survey to gather data. This method is anticipated to produce a higher response rate.

- Consider extending Connecticut's current tracking system for research needs to add tracking of post-project-implementation progress. Identify follow-up contacts in system who can be contacted periodically for updates on implementation progress.
- Consider developing html tables from tracking system to post information on intranet about pot-project follow-up.
- Investigate – including recommended implementation performance measures in each projects final report.
- Explore current NJDOT "Prompts" software for research program management (N. Vitillo to send latest copy of software)
- Explore establishing a news-clipping service from trade magazines that cross our desks in research. (PDF pertinent pages and email to likely interested personnel)
- Explore Montana DOT's web site to learn how they explain the research process.
- Catalog capabilities and contacts in the form of a university directory, including other colleges in Connecticut.

Guest Take Home Items (Glenn Roberts, NH DOT)

- Assess value of research in eyes of public during problem statement submittal phase
- Consider use of focus groups and/or interviews with individual offices of NH DOT to identify research needs (supplement solicitation process)
- Increase participation in the TRB state visits as an opportunity to hear what's on peoples minds, potential research ideas.
- Similar to Montana DOT, implement report cards concept on research projects. Put onus on technical advisory group to follow up on success of project after completion and implementation
- Request directory from UNH and other NH colleges summarizing institutions capabilities related to research
- Create simple routing slip for staff to tag articles for clerical staff to copy and forward to appropriate individuals
- Evaluate potential application of streaming video on NH DOT research website

Guest Take Home Items (Craig Abernathy, Montana DOT)

- Use of Video Streaming as a tool to promote and inform research activities to staff and public (CtDOT example).
- Review of current solicitation process to determine areas of improvement.
- Use of SPR funds to send non-research staff to TRB
- Look into feasibility of completed project progress reports
- Research showcase conference (perhaps tied to peer exchange)
- Expanding the Departments use of our local UTC agency.

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- Review the current university research potential, and meet with applicable staff to ascertain how we may increase annual funding for projects which fit well into our local university system.

List of Participants

MaineDOT

Susan Moreau, Office of Passenger Transportation
Russell Charette, Office of Passenger Transportation
Kevin Rousseau, Office of Freight Transportation
David Bernhardt, Bureau of Project Development
Michael Burns, Bureau of Maintenance & Operations
Bruce Ibarguen, Bureau of Maintenance & Operations
Dan Robbins, Bureau of Maintenance & Operations
Raymond Halperin, Bureau of Finance & Administration
Carl Croce, Bureau of Planning
Kathy Fuller, Bureau of Planning
William Thompson, Bureau of Planning
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Eric Landis
Bill Davids
Roberto Lopez-Anido
Habib Dagher
John Peckenhem



Figure 2 - One of the full scale testing frames at AEW Center.



Figure 3 – The view leaving University of Maine at end of second day of exchange.