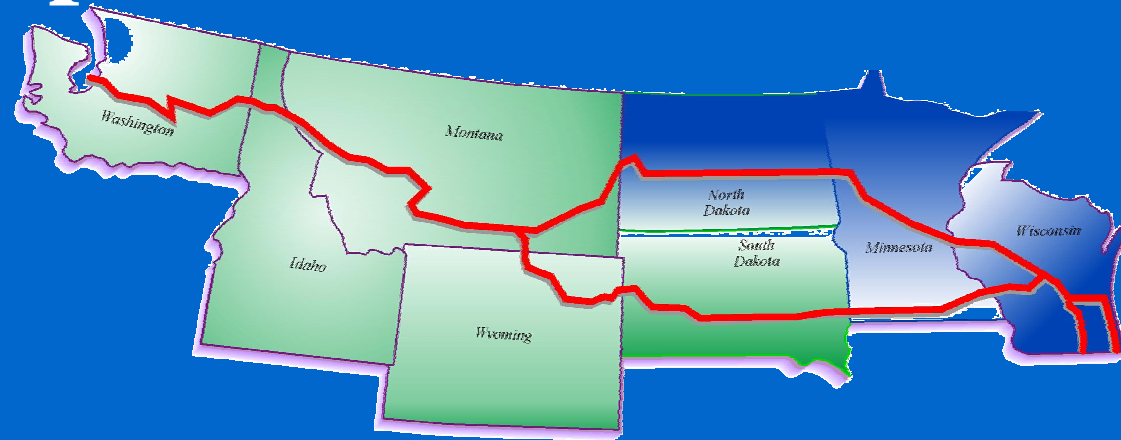


North/West Passage Transportation Pooled Fund Study



**2004 National Rural ITS Conference
Duluth, Minnesota**

August 24, 2004

Phil DeCabooter, Wisconsin DOT

Mark Nelson, Minnesota DOT

Background

- December 7, 2001 – Minnesota Guidestar approved the development of a multi-state project to coordinate ITS deployments along I-90 and I-94
- February 25, 2002 – Representatives from Washington, Idaho, Montana, North Dakota, South Dakota, Wyoming, Minnesota, and Wisconsin held a workshop to discuss the development of a coalition along I-90 and I-94
- June 2002 – Pooled Fund Study Solicitation
- January 2003 – Pooled Fund Study Re-Solicitation
- North Dakota, Minnesota, and Wisconsin secured approval and funding to initiate the development of a North/West Passage Transportation Pooled Fund (TPF) study
- Other I-90 and I-94 states have continued to express interest in the project, but do not have funding secured to participate at this time



Corridor Map



Goal and Vision of TPF Study



Goal of North/West Passage TPF Study

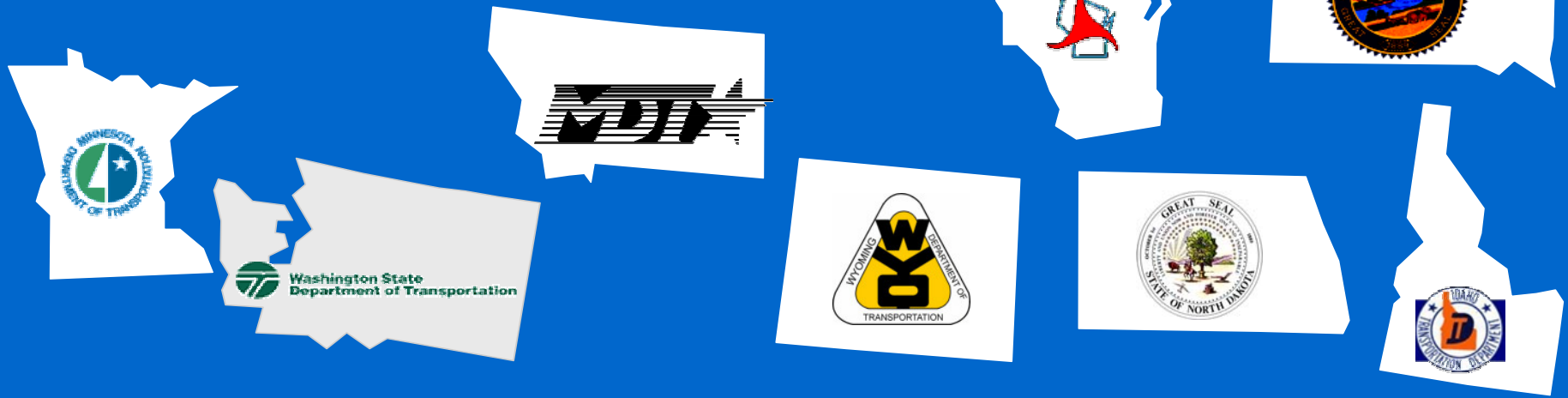
Implement and evaluate integrated traveler information systems and coordinate maintenance operations across state borders.

Long-Term Vision of North/West Passage TPF Study

Influence ongoing standards development; operate database systems that can transmit and receive multiple data streams; and, utilize effective methods for sharing, coordinating, and integrating traveler information across state borders.

Current Status

- Minnesota DOT is the lead organization for the TPF Study
- Minnesota, North Dakota, and Wisconsin have pooled \$100,000 for Phase I projects
- Minnesota DOT hired URS to provide project management support
- Minnesota, North Dakota, and Wisconsin approved a Work Plan in December 2003 that identified projects to pursue as Phase I of the TPF Study
- Phase I projects started in March 2004





Phase I Projects Summary

	Project Name	Project Champion(s)	Project Cost
1.1	Integrate ND, WI, and MN Reporting Systems	Mark Nelson, Mn/DOT	\$29,500
1.2	Deploy Limited CARS Application for WI	Phil DeCabooter, WisDOT	\$7,500
1.3	Develop Automated Road Condition Reporting System (Possible Future Project)	Mark Nelson, Mn/DOT	\$00
1.4	Provide Integrated Communications Capabilities for ND DMS (Possible Future Project)	Ed Ryen, NDDOT	\$00
1.5	Preliminary Design for DMS Deployment on I-94 Eastbound in ND	Ed Ryen, NDDOT Dennis Redig, Mn/DOT	\$12,000
1.6	Preliminary Design for DMS Deployment at the I-94 and I-90 split in Tomah, WI	Phil DeCabooter, WisDOT	\$12,000
1.7	Develop a North/West Passage Web Site	Ayman Smadi, NDSU	\$4,000
1.8	Develop a Communications Plan for the De-Icing System to be installed on the I-94 Bridges at Red River	Dennis Redig, Mn/DOT	\$20,000
1.9	Develop a Lessons Learned Document Comparing Requirements for CARS Deployment in WI to Meridian's Planned Reporting System in ND	Ayman Smadi, NDSU	\$15,000
Total Cost of Phase I Projects			\$100,000*

**Total does not include costs for admin, travel, meeting or consultant support services.*

Phase I Projects

Project 1.1

Integrate North Dakota, Wisconsin, and Minnesota Reporting Systems

 Create seamless access to traveler information

Road conditions & Weather information

 MN – **CARS** ND - **#SAFE** WI – **n/a**



Project Champion

Mark Nelson, Mn/DOT

NWP Cost




\$29,500

Phase I Projects

Project 1.2

Deploy Limited CARS Study Application for Wisconsin



-  Test deployment of CARS system along I-94
-  Key staff to manually input road conditions
-  Wisconsin staff to study and become familiar with using CARS

Project Champion

Phil DeCabooter, WisDOT

NWP Cost


\$7,500


Phase I Projects

Project 1.3

Project Tabled

Develop Automated Road Condition Reporting System

 Develop, test, & evaluate automated road condition reporting system to improve traveler information

 Project tabled due to the separate and on-going Maintenance Decision and Support System (MDSS) project

Project Champion

Mark Nelson, Mn/DOT

NWP Cost





Project Tabled

Phase I Projects

Project 1.4

Project Completed

Provide Integrated Communications Capabilities for North Dakota DMS

-  Allow district offices to remotely operate DMS
-  Utilize a central control software
-  Project was funded through grant money ND received to upgrade their DMS to NTCIP compliance
-  The project was a success – North/West Passage stimulated the project

Project Champion

Ed Ryen, NDDOT

NWP Cost




\$0

Phase I Projects

Project 1.5

Preliminary Design for DMS Deployment
on I-94 Eastbound in North Dakota



-  Install DMS in ND as they approach MN border on I-94
-  Complement MN DMS for westbound travelers
-  Receive coordinated traveler information at state boundary

Project Champions

NWP Cost

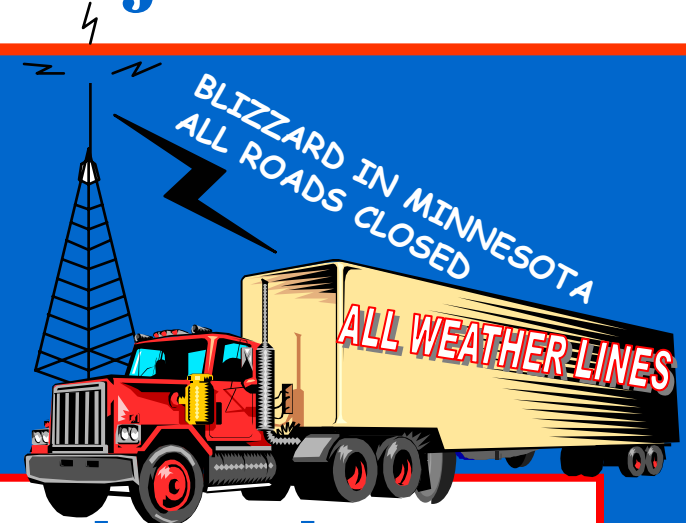
Ed Ryen, NDDOT & Dennis Redig, Mn/DOT


\$12,000

Phase I Projects

Project 1.6

Preliminary Design for DMS Deployment
at the I-94 & I-90 Split at Tomah, Wisconsin



 Provide long-distance westbound travelers
road condition information to make early and
safer decisions

 Concept of operations plan support for corridor
wide DMS deployment

Project Champion

Phil DeCabooter, WisDOT

NWP Cost

\$12,000

Phase I Projects



Project 1.7

Develop a North/West Passage Program Website

 Provide easy access to North/West Passage information

 Communicate and educate public about North/West Passage Pooled Fund Study

 Information available on demand

 www.nwpassage.info

Project Champion

Ayman Smadi, NDSU

NWP Cost




\$4,000

Phase I Projects

Project 1.8

Develop a Communications Plan for the Anti-Icing System to be Installed on the I-94 Bridges at Red River



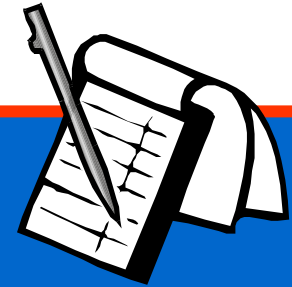
-  Preliminary work for future anti-icing system
-  Project will address communication design and operational agreement
-  Will allow for automated anti-icing of critical road during hazardous bridge conditions

Project Champion

Dennis Redig, Mn/DOT

NWP Cost

\$20,000



Project 1.9

Develop a Lessons Learned Document Comparing Requirements for CARS Deployment in Wisconsin to Meridian's System Deployment in North Dakota



Identify typical requirements for developing a road condition reporting system

Survey available systems, use deployment as case study, identify agency issues/requirements



Guide other states in deploying similar projects

Project Champion

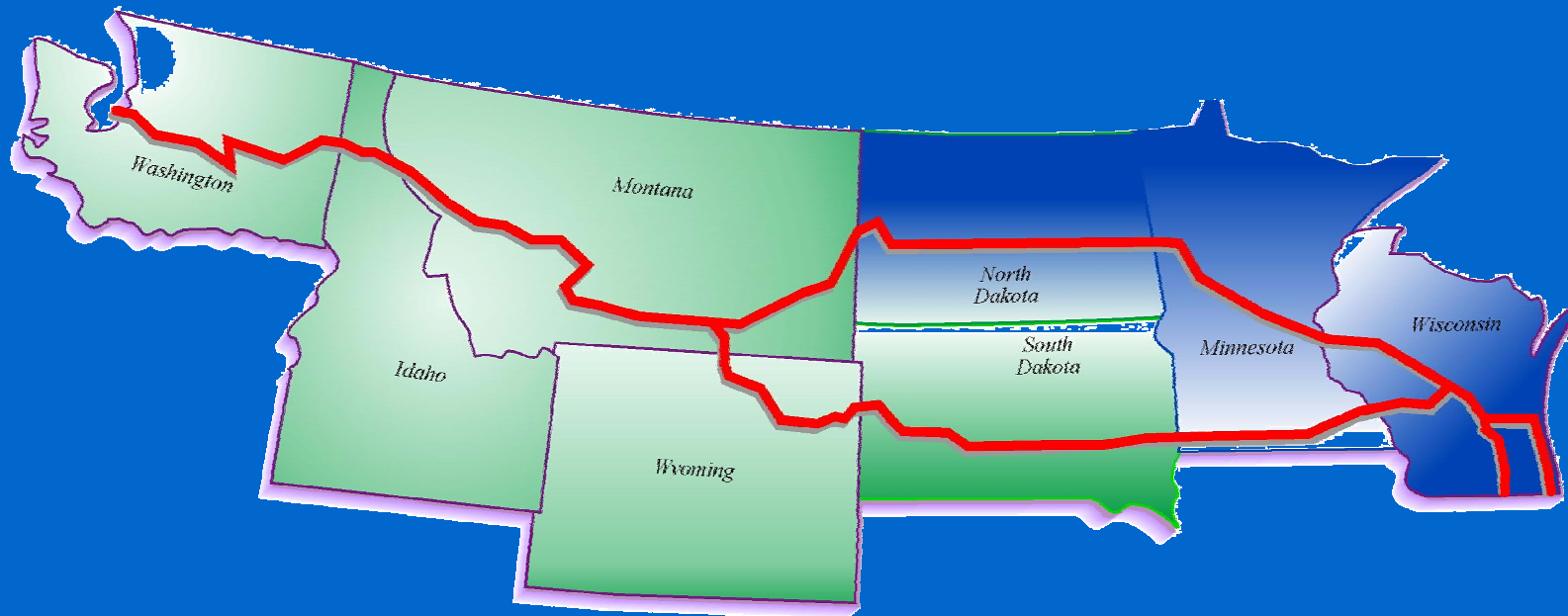
Ayman Smadi, NDSU

NWP Cost

\$15,000

Next Steps

- Continue and Complete Phase I Projects
- Solicitation
- Solicit Project Ideas and Obtain Funding for Phase II Projects



Questions



Contact Information

Phil DeCabooter

Wisconsin DOT

Phone: 608-267-0452

phil.decabooter@dot.state.wi.us

Mark Nelson

Minnesota DOT

Phone: 651-284-3484

mark.nelson@dot.state.mn.us

