The
ENTERPRISE
Pooled Fund Program

ENTERPRISE

A International Multi-Agency ITS Collaboration

Bill Legg
State ITS Operations Engineer

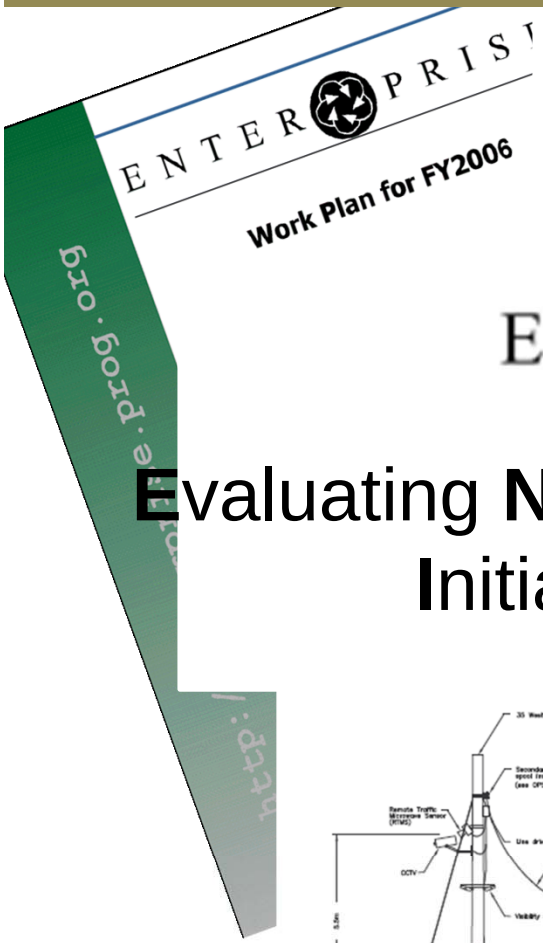
Washington State Department of Transportation

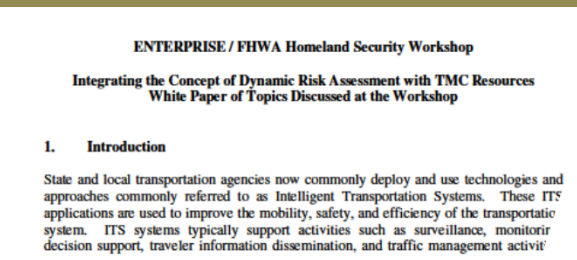
What is a Pooled Fund Program?

- The Transportation Pooled Fund (TPF) Program allows federal, state, and local agencies and other organizations to combine resources to support transportation needs.
- A federal, state, regional, or local transportation agency may initiate pooled fund studies. Private companies, foundations, and colleges/universities may partner with any or all of the sponsoring agencies to conduct pooled fund projects.
- Approved by FHWA

www.pooledfund.org

The Program




ENTERPRISE / FHWA Homeland Security Workshop

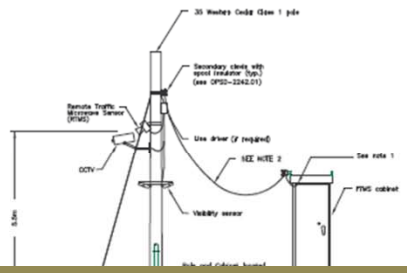
Integrating the Concept of Dynamic Risk Assessment with TMC Resources
White Paper of Topics Discussed at the Workshop

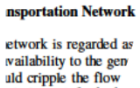
1. Introduction

State and local transportation agencies now commonly deploy and use technologies and approaches commonly referred to as Intelligent Transportation Systems. These ITS applications are used to improve the mobility, safety, and efficiency of the transportatio system. ITS systems typically support activities such as surveillance, monitorir decision support, traveler information dissemination, and traffic management activit

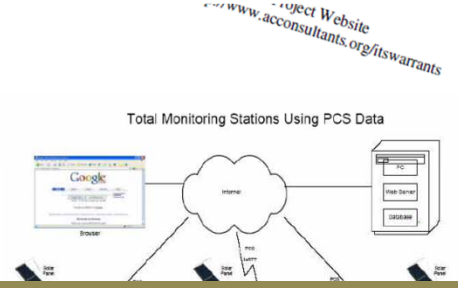
ENTERPRISE

Evaluating **N**ew **TE**chnologies for **R**oads **PR**ogram **I**nitiatives in **S**afety and **E**fficiency




nsportation Network

etwork is regarded as
vailability to the gen
uld cripple the flow
nic impact (both st



Enterprise.prog.org

Background

- Currently brings together 13 States, one county, one Province, and 3 National Transportation Organizations.
- TPF formally established in 1991.
  - The idea for the program started in 1989
- Michigan is the administrative state, and is the 3rd state to administer the program after Colorado and Iowa.
- Michigan was one of the founding ENTERPRISE members

Program Membership

Current Program Participants:

- **Arizona DOT**
- **Georgia DOT**
- **Idaho Transportation Department**
- **Illinois DOT**
- **Iowa DOT**
- **Kansas DOT**
- **Maricopa County, Arizona**
- **Michigan DOT**
- **Minnesota DOT**
- **Mississippi DOT**
- **Oklahoma DOT**
- **Texas DOT**
- **Virginia DOT**
- **Washington State DOT**
- **Ontario Ministry of Transport**
- **Transport Canada**
- **Rijkswaterstaat (Dutch Ministry of Transport)**
- **FHWA**

Program Goals

- The ENTERPRISE program is intended to facilitate rapid progress in the development and deployment of (creative) ITS technologies
- The principle objective of the ENTERPRISE program is to accelerate the systematic advancement of selected ITS projects. Within this theme, program members will carry out ITS projects and activities including fundamental research efforts, technology development, demonstration and standardization, and fully operational system deployment.

Program Start

- In early 1993 the ENTERPRISE Program Management Plan was adopted which has been the foundation of the program to date. It set in place the annual work plan process.
- The first “formal” work plan was compiled in 1994, although the program was already focused on some efforts prior to that.
- There have been yearly work plans since 1994.

Program Details

- The program's Management Plan includes the:
  - Organization Charter which covers:
    - Program Board (everyone is a volunteer)
      - Structure & responsibilities
      - Chair & Vice-Chair
    - Program Administrator (also a volunteer)
  - Operating Rules which covers:
    - Project idea development, voting procedures, project delivery, travel, etc

Program Details - 2

- Meeting Structure:
  - Program Board with elected Chair
  - Twice yearly conference calls & twice yearly meeting
- Program Management/Technical Consultant:
  - Handles meeting logistics & program website
  - Produces the Work Plan Document
  - Provides some project support,
  - Provides program reporting
  - Contracted by the administrative state

Work Plan Process

- Yearly work plan development process:
  - Solicit Board members for ideas:
    - Review past project work, and past proposed but unfunded projects.
    - Look at trends and issues nationally and internationally.
    - Identify agency specific needs.
  - Board reviews and ranks project ideas, request full proposals for most promising projects; which may require modification based on review and discussion.
  - Final proposals are reviewed, ranked, and prioritize for funding

Project Process

- A Board member is assigned as the Project Champion who:
  - Is responsible for delivering the project.
    - On time/on budget
  - Develops a project review team.
  - Determines project contracting needs, 2 options:
    - Consultant & contractor services for projects contracted & co-managed with the administrative state.
    - Technical/management consultant
  - Coordinates with and reports to the Program Board.

Projects

ENTERPRISE has completed nearly 50 projects over the years, some efforts:

- 2012 Work Plan
  - The Next Era of Traveler Information Impacts of Travel Information on the Overall Network
  - HAR – Understanding the Best Practices and Future Direction Warrants for ITS Devices Phase 3
  - Intersection Warning Systems: Evaluating Nationwide Deployments
  - Intelligent Workzone – Synthesis of Best Practices

Latest Projects

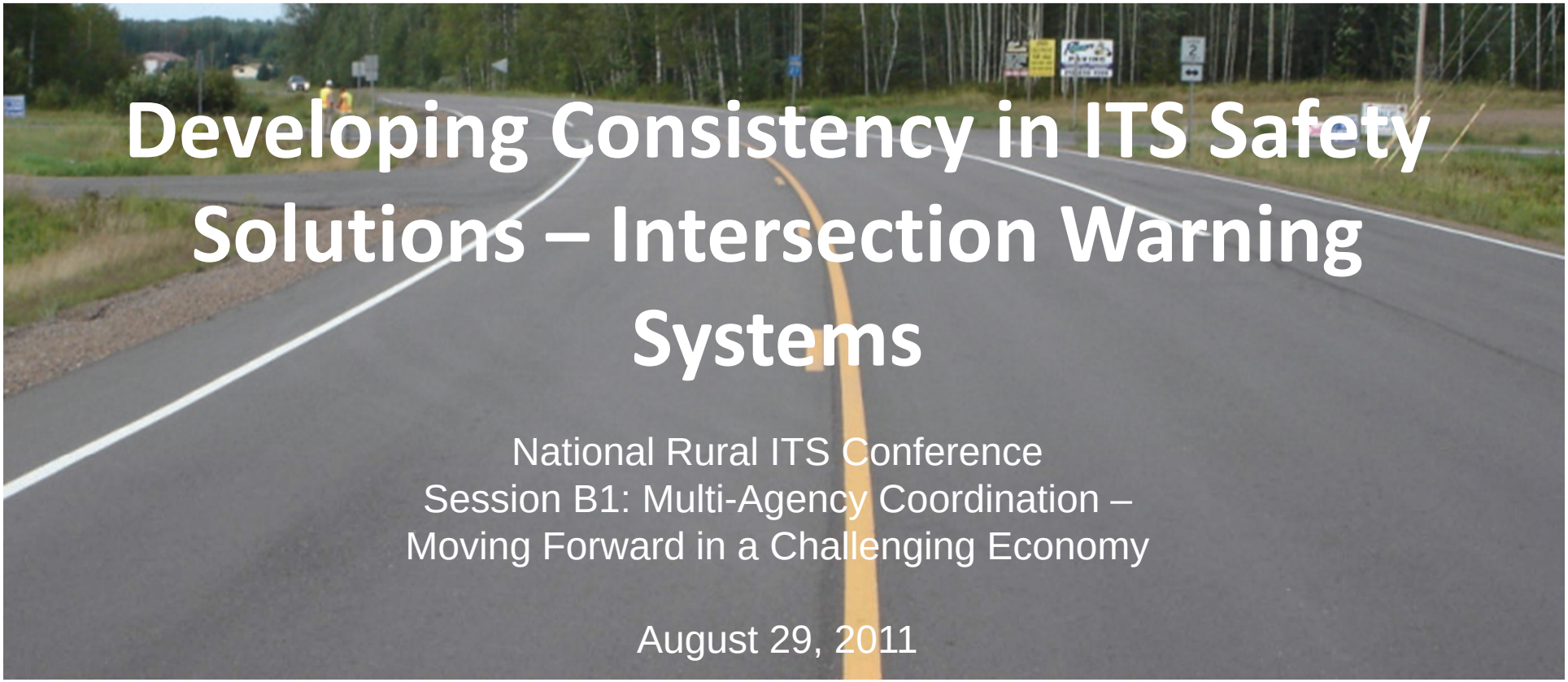
- 2010 Work Plan
  - Developing Consistency in ITS Safety Solutions – Intersection Warning Systems
  - Impacts of Travel Information on the Overall Network
  - Next Generation Traffic Data and Incident Detection from Video
  - Warrants for ITS Devices Phase 3
- 2011 Work Plan Projects Under Review
  - Supporting the Transition of ENTERPRISE's ITS Warrants to a Permanent Home
  - Understanding Utilization of 3rd Party Travel Data and Information
  - Connected Vehicles Data Element ConOps
  - Interpretable Travel Information – Use and Impacts
  - Optimization of Renewable Energy for ITS
  - Assessment of the OnStar Data Feed
  - Feasibility of Using ITS for Data Capture and Feedback in Asset Management

Benefits of The Program

- Has allowed investigation of higher risk projects with less commitment.
- Has facilitated a collaborative peer based environment for information sharing which often reaches beyond the focus of the TPF.
- Has helped leverage and share a deep pool of ITS and operations experience.
- Has helped implement cross agency sharing and coordination.

Bill Legg
leggb@wsdot.wa.gov
wsdot.wa.gov/Operations/ITS/

Washington State Department of Transportation



Developing Consistency in ITS Safety Solutions – Intersection Warning Systems

National Rural ITS Conference
Session B1: Multi-Agency Coordination –
Moving Forward in a Challenging Economy

August 29, 2011

ENTERPRISE

Intersection Warning Systems

- Mainline Warning Systems
  - Vehicle Crossing / Entering Mainline
  - Speed Warning
- Cross-street Warning Systems
  - Mainline Vehicle Approaching Cross Street
  - Cross-street Stop Sign Warning Systems
  - Cross-street Gap Assistance Systems

ENTERPRISE

Intersection Warning Systems

States with Systems

- Iowa
- Florida
- Louisiana
- Maryland
- Michigan
- Minnesota
- Missouri
- Maine
- North Carolina
- Ohio
- Pennsylvania
- South Carolina
- Virginia
- Washington
- Wisconsin

ENTERPRISE

Project Stakeholders

- ENTERPRISE Pooled Fund Members
- States with ICW Systems
- NCUTCD – Committee on Warning and Guide Signs
- AASHTO – Sub-Committee on Traffic Engineering
- National Association of County Engineers
- FHWA

ENTERPRISE

Project Purpose

Bring together organizations that have developed and deployed intersection warning systems to develop a **consistent approach for accelerated, uniform deployment and further evaluation** of intersection warning systems, and to **develop preliminary standards** for MUTCD consideration.

A webinar and two workshops are proposed to accomplish these tasks.

ENTERPRISE

Webinar #1

- June 23
- Share knowledge and educate each other on systems deployed
  - Minnesota, Missouri and North Carolina will present information on their systems
  - One-pagers and reports on other systems
- Identify challenges with future deployments
  - Will begin to identify content needed for preliminary standard and further evaluation

ENTERPRISE

Workshop #1

- July 28-29, Minnesota
- Discuss content of preliminary standards
  - Sign size, message content, placement, tort liability, C/B, operating costs, COTS availability , etc.
- Develop a roadmap for reaching standardization
  - Establish a process to facilitate inclusion of the systems identified into MUTCD
  - Identify gaps in information needed to develop complete standards (i.e., further evaluation of systems)

ENTERPRISE

Workshop #2

- September 15-16, 2011
- Review the preliminary standards proposed for interim approval
- Develop an evaluation framework that may be used in future deployments for experimentation
  - Establish measures of effectiveness and data needs for each system type to facilitate comparison of systems
- Discuss plans for future experimentation and coordination

ENTERPRISE

Anticipated Results

- Awareness of systems deployed and experiences to-date
- Preliminary standards to support accelerated and more consistent deployment for experimentation
- Evaluation framework for further experimentation
- Roadmap to reach complete standards in the MUTCD

ENTERPRISE

Questions?

www.enterprise.prog.org

Jon Jackels
Minnesota DOT
jon.jackels@state.mn.us
651-234-7377

Ginny Crowson
Athey Creek Consultants
crowson@acconsultants.org
651.600.3338

ENTERPRISE