Rural Intersection Collision Avoidance System (RICAS)

Project Briefing

presented to
Minong Senior Center

presented by
RICAS Research Team

March 17, 2010
PRESENTATION AGENDA

• RICAS Advisory Group
• US 53/STH 77 Intersection Safety Characteristics
• Development of RICAS in Minnesota
• System Overview
• Cannon Falls, MN Videos
• Example Intersection Scenarios
• Expected Project Benefits
• Project Schedule
• Questions
RICAS Advisory Group

- Wisconsin State Patrol
- Village of Minong
- Washburn County DOT
- Washburn County Highway Department
- Washburn County Sheriff's Department
- Washburn County Traffic Safety Commission
- RICAS Advisory Group
- FHWA (Oversight)
- TOPS Laboratory UW-Madison
- ITS Institute University of Minnesota-Twin Cities
- Private Sector Partner(s)
US 53 and STH 77 Safety Characteristics
Development of RICAS in Minnesota

- Signing Studies

Simulator Studies

On-Road Studies
Electronic Message Signs – relay alerts and warnings to side-road drivers as determined by the computational system.

View of the near-side sign. Unsafe to cross.

Mainline traffic on the left and right is less than 7.5 seconds away.

Actual sign: 66” x 92”; 80 x 112 pixels (20 mm pitch)
System Overview

Computation System

0.0 secs

UNSAFE

Measure Range, Speed

Radar
Cannon Falls, MN Videos
Example Intersection Scenarios

Traffic From the Left: **No traffic, ok to cross**

Traffic From the Right: **Traffic Coming, Be Very Cautious**
Example Intersection Scenarios

Traffic From the Left: **Traffic Coming, Be Very Cautious**

Traffic From the Right: **Traffic Coming, Do Not Cross**
Example Intersection Scenarios

Traffic From the Left: Traffic Coming, Do Not Cross
Traffic From the Right: No Traffic, Safe to Cross
EXPECTED PROJECT BENEFITS

• Reduce the frequency of crashes at the intersection of US 53 and STH 77 in Minong

• Better understanding of drive behavior, both by frequent and infrequent users of the intersection

• Documentation of the safety benefits to support a benefit-cost analysis

• Pending proper evaluation, provide motivation for further deployments throughout the U.S.
QUESTIONS

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