Rural Safety Innovation Program (RSIP):
Evaluation Overview & Preliminary Lessons Learned

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Today’s Topics

• RSIP Overview
• RSIP Evaluations
• Preliminary Findings
RSIP Overview

2006 Crash Statistics:

- Rural Areas: 40% of VMT
  55% of Fatalities

2006 Fatal Crashes:

- 23,339 Rural Areas
- 18,359 Urban Areas

Source: NHTSA Crash Statistics
RSIP Overview

USDOT Initiated the RSIP:

- February, 2008
- Deploy and Evaluate Rural Safety Technologies
12 Deployments
10 States
RSIP Overview

Curve Warning Systems:
- King County, WA
- Rural Minnesota
- Colorado (Truck rollover)
RSIP Overview

Collision Avoidance / Intersection Warning:

– Kansas
– Wisconsin (RICAS)
– Illinois
– El Dorado County, CA
RSIP Overview

Weather Related Warnings:
– Arizona
– South Carolina
– Wolf Creek, CO

Crash Reporting:
– Iowa
RSIP Overview

Work Zone Safety:
  – California (aSE)
RSIP Evaluation

USDOT
Linda Dodge

Noblis
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Battelle
(Evaluation Prime Contractor)

Texas Transportation Institute

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RSIP Evaluation

1. System Performance

2. Deployment Experience

3. Impacts of the Deployments
Deployment Experience

1. What was planned?

2. What actually happened?

3. What worked well? Not so well?

4. Local agency time and costs?

5. Special skills, equipment, training
Impacts of Deployment

1. Benefits Recognized

2. Travelers’ / Public Responses

3. Surrogate Measures for Safety
   - E.g. Speed Reductions
   - E.g. Driver Behavior
Two Examples

• King County, WA

• Arizona Dust Warning System
King County – Curve Warning System

Graphic courtesy of King County DOT
King County – Curve Warning

Graphic courtesy of King County DOT
King County – Preliminary Findings

Deployment Experience:
• Sign Functions (multiple messages)
• Brightness
• Vandalism
• Sand & Snow Impacts
• Drivers Intentionally Activating
• Closure during install (lane control)
King County

Impacts:

- Public Reaction
- Speed Reductions
  - Warning Signs?
  - In-pavement Lighting?
- Sustained?
- Crashes (# and Severity)
AZ Dust Project—
Focus of Evaluation

Deployment Experience Focus:

• Mostly Proven Technologies
• Algorithms / Thresholds / Predictions
• Appropriateness of Alerts
AZ Dust Project–Focus of Evaluation

Focus of Impacts Analysis:

• Travelers Response to Advice
• DPS / ADOT Reaction to Alerts
• How the System is Used
Final Thoughts

• True Benefits Assessed over Time
  - How many crashes are prevented?

• Great Participation from Deployment Sites
  - Much Feedback & Lessons Shared

• Very Useful to Future Deployments
Questions

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