



# United States Road Assessment Program (usRAP)

NADO

August 25, 2011

Saving lives  
through research  
and education





# usRAP

**UNITED STATES ROAD ASSESSMENT PROGRAM**

“Safer drivers in safer vehicles on  
safer roads”



## Road Assessment Programs

- 2000 - EuroRAP
- 2003 - AusRAP
- 2004 - usRAP
- 2005 - iRAP



Active in over 70 Countries



## usRAP Objectives

- Benchmark safety of road segments
- Allocate resources based on risks
  - ✓ Infrastructure
  - ✓ Enforcement
- Inform and provide guidance to motorists
- Foster collaboration
- Save lives and reduce serious injuries

## Research Team

- Midwest Research Institute
- Iowa State University

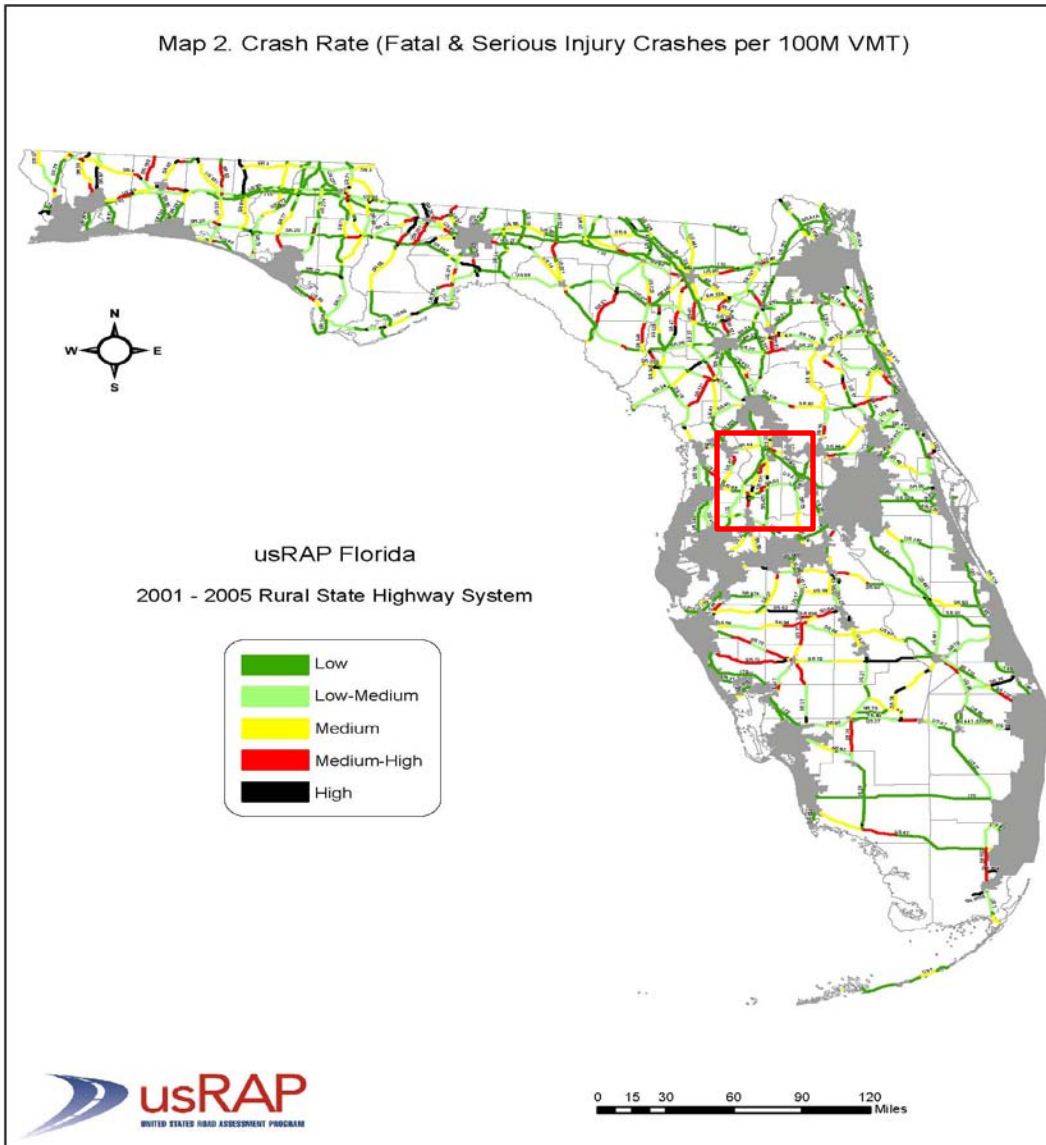
## usRAP Advisory Panel

- AASHTO
- AHUA & RSF
- ATSSA
- Auto Clubs
- FHWA
- ITE
- NACE
- Local/State Highway Agencies

## usRAP Protocols

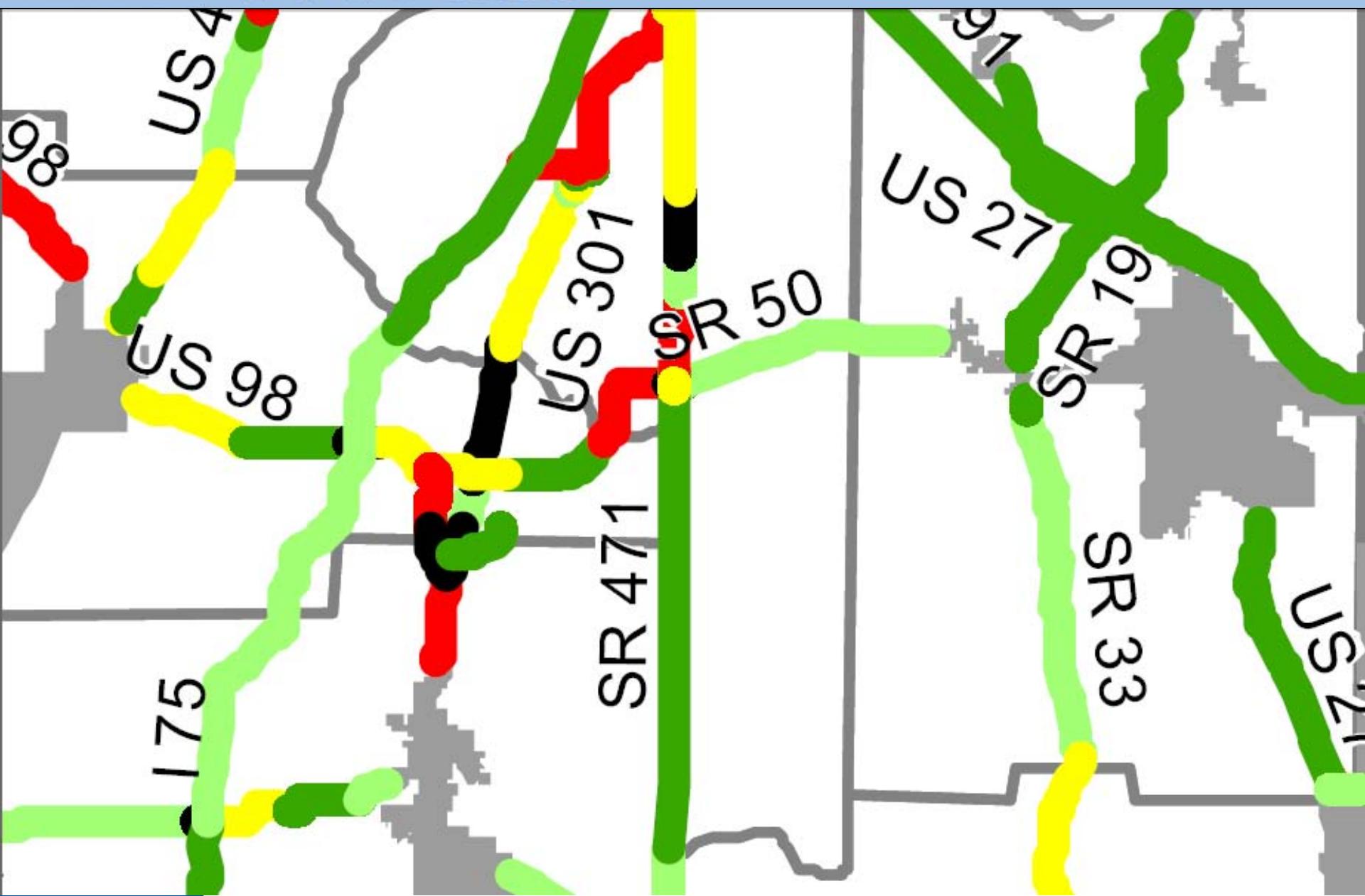
- Risk Mapping – Fataals and Serious Injuries
- Road Protection Score (RPS) – Star Ratings
- Safety Investment Plan
- Performance Tracking

Map 2. Crash Rate (Fatal & Serious Injury Crashes per 100M VMT)



# Risk Map-West of Orlando

★ ★ ★ ★ usRAP





# Typical Inspection Vehicle

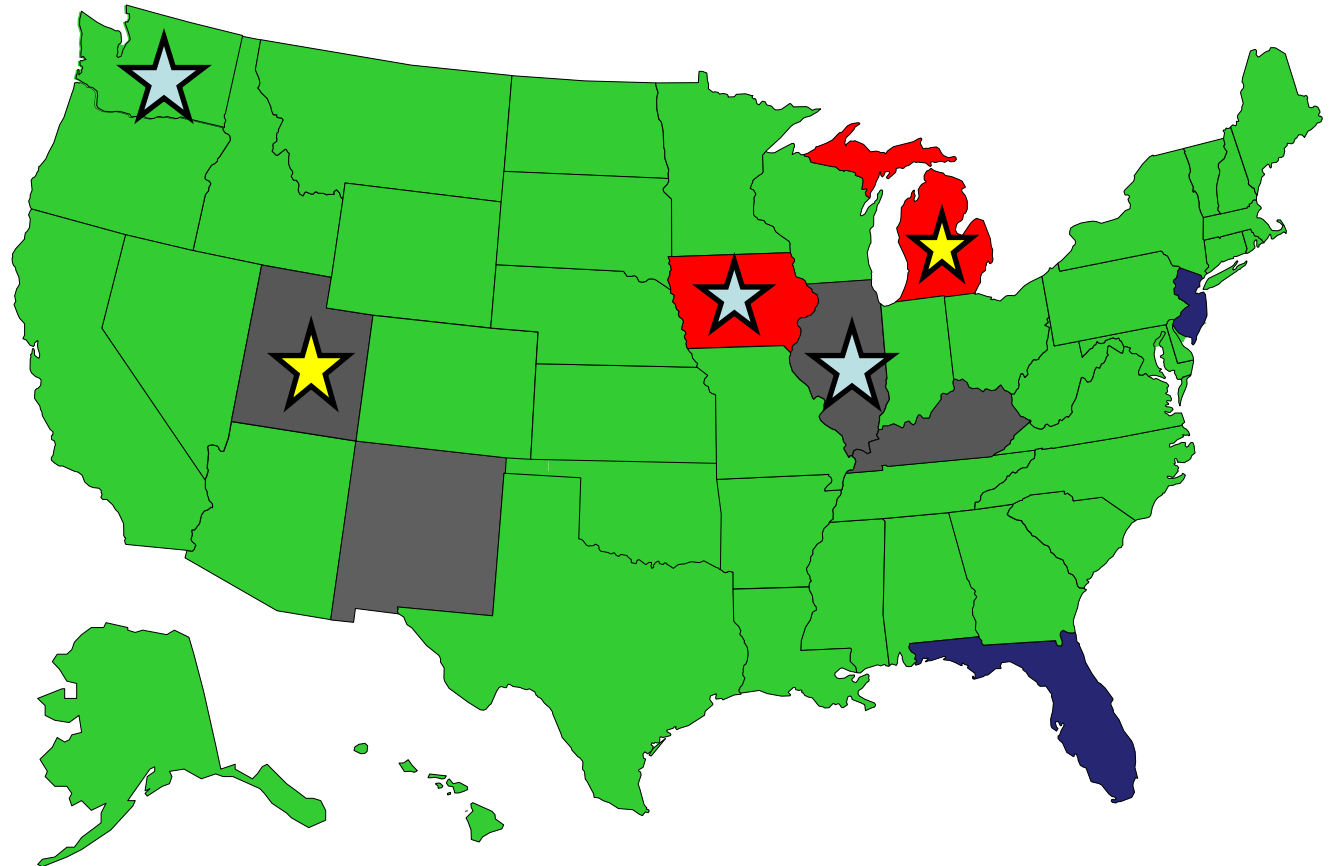





## Star Ratings based on Road Protection Score

- Provide star ratings based on safety features of specific sites
  - ✓ Crash Likelihood
  - ✓ Crash protection
- Can supplement and explain risk maps
- Useful when crash data are limited
- Produce Safety Investment Plans
  - ✓ Identifies cost-effective engineering solutions



# usRAP



-  Phase I
-  Phase II
-  Phase III

-  RPS Validation – Washington, Iowa, Illinois
-  Public Awareness Campaigns – Utah, Michigan



## Applications of usRAP

- Highway safety improvement plans
- Performance “metrics”
- 5% reports
- High risk rural road grants
- Guide resource allocation
  - ✓ Infrastructure
  - ✓ Enforcement
- Support asset management

## Current usRAP Plans

- Transition from Pilot to Operational Center
  - ✓ Utah DOT first member
  - ✓ State DOT pool fund program possible
  - ✓ Finalize strategic partnership with NAVTEQ
  - ✓ Build upon Kane County, IL project

## Current Context

- Accountability, transparency & performance metrics becoming more important
- State & local resources will remain tight
- More emphasis on rural roads
  - ✓ High Risk Rural Roads Safety Act

“One death is unacceptable. One death every 15 minutes is an outrage.”