

Highway Transportation Transition Issues

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Critical Context

- 243 million registered vehicles, ~ 3 trillion vehicle miles traveled on US roads each year
- Over 43 thousand highway related fatalities in 2005
- Really bad news: the rate rose after two decades of decline

Fatality and Injury Rates per 100 Million VMT, by Year



Source: FARS, NASS GES / FHWA

2005 Projections

Release April 20, 2006

We lack the societal/political will

- 55% passenger vehicle fatalities not restrained
- 39% fatalities involve alcohol
- 31% fatalities related to speeding
- Technologies to address these exist: seat belt locks, alcolocks, speed and headway controls

Vehicles are getting smarter

- Auto manufacturers are pushing ahead with driver assistance/convenience offerings, viz:
 - GM's announcement that their 2008 Opel will drive itself...
 - Mercedes and BMW delivering Intelligent Cruise Control now
 - Ford offering extensive voice control
 - Honda's stop-and-go, lane keeping assist
 - GM's blind spot and lane change assist

Roads are getting smarter

- Traffic management centers
- Network performance, variable posted speeds, route guidance
- Weather, road condition alerts
- Intersection collision avoidance
- Gap acceptance assistance

Vehicle Infrastructure Integration

- A consortium has been established to determine the feasibility of widespread deployment and to establish an implementation strategy
 - Automobile manufacturers
 - State Highway Officials
 - Federal Highway Administration

Transition Challenges

- How to integrate multiple public government service agencies with multiple competitive business entities
- How to engage an unskilled unpredictable user population
- How to deploy consistently across the nation
- How to “mainstream” systems operation and management

Key Institutional Preconditions

- Commitment to formal agency policy and stakeholder support
- Formal planning and programming process
- Appropriate organization/staffing
- Authorized partnerships—interagency and public/private
- Agreement on Performance Measures
- Conventional budgeting processes

Ref: AASHTO Business Plan for Mainstreaming

November 2005

Transition Needs...

- Staffing, not just changing what gets done by the same people
- Sustained organization and leadership by decision makers
- The three pillars: Systems Engineering, Program Planning, and Acquisition Management