

The Future of ITS

and its impact on Public Safety

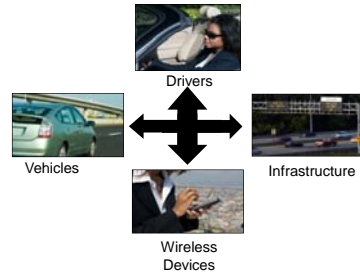
Response Community - *IMAGINE*

EMS Subcommittee of the TRB Ambulance
Transport Safety Summit

October 29th, 2009



The Future ITS & Public Safety

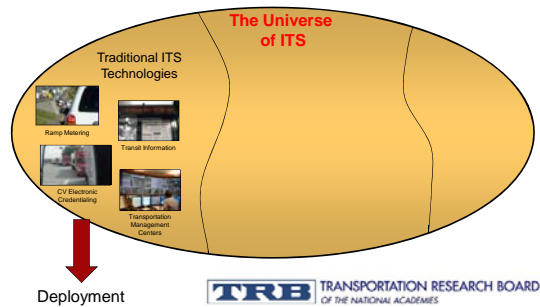


Today's Topics:

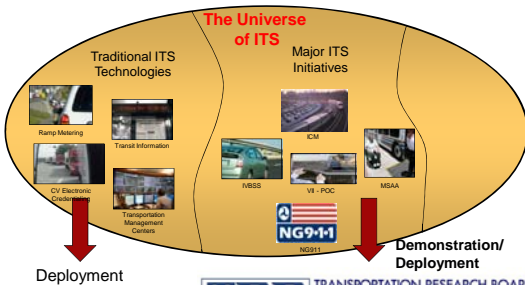
- What is Intelligent Transportation Systems (ITS)??
 - Overview of ITS concept
- ITS technologies and impact on Public Safety
 - Traditional & current technologies
 - Future issues and opportunities
 - Impact on Public Safety Response Community



The ITS Program: Past



The ITS Program: Past, Present

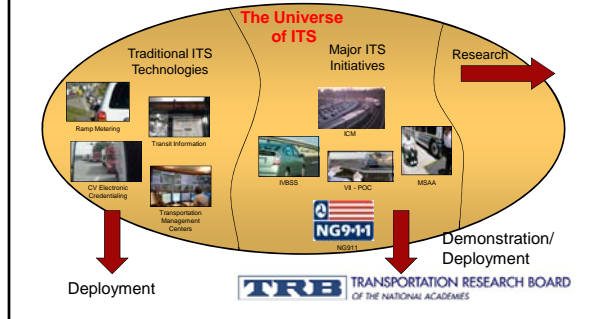


Next Gen ITS Research

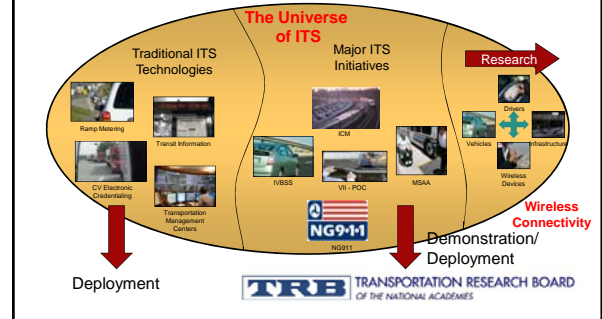
A Data Revolution is Coming



The ITS Program: Past, Present and Future



The ITS Program: Past, Present and Future



....and Future

- **Challenge** – Vehicular crashes (i.e. fatalities and injuries), system-wide congestion, environmental issues
- **Concept** – Use wireless technology to enable innovative transportation applications
- With and between vehicles (V2V);
- Between vehicles and roadway infrastructure (V2I);
- Among vehicles, infrastructure and wireless consumer devices.



....and Future

- **Description** – A suite of technologies and applications that uses wireless vehicular connectivity
- **Transformational Innovation** – V2V and V2I applications that prevent crashes; provide complete data on road network performance from vehicle data
- **Public Benefits** – Fewer deaths, complete transportation data for managers and travelers, improved system efficiency and performance



IntelliDriveSM Safety Benefits

OPPORTUNITY:

- IntelliDrive could potentially address 82% of the vehicle crash scenarios involving unimpaired drivers.
- At full coverage and full effectiveness, IntelliDrive could save thousands of lives per year.
- This technology represents a new era for vehicle safety



IntelliDriveSM Safety Benefits

IMAGINE:

- Your vehicle can “see” and react to other vehicles, including those you can’t see
- Your vehicle knows roadway conditions that you can’t see
- Your vehicle knows the speed and location of approaching vehicles and potentially other users (i.e. pedestrians, bicycles)



IntelliDriveSM Safety Benefits

OPPORTUNITY:

- IntelliDrive can provide **transportation agencies**:
 - Dramatically improved quality and quantity of **real-time traffic and road condition data**;
 - Which would make it easier to **manage transportation systems performance**.
- IntelliDriveSM can provide **consumers**:
 - Real time info for **rerouting**.
 - Real time info on **modal options**.



IntelliDriveSM Safety Benefits

IMAGINE:

- **Managing** the system if you knew where every vehicle was in real time
- Planning for **growth patterns** when you can see the complete traffic patterns around development
- Planning your **travel** if you knew real-time conditions on all roads along your route



IntelliDriveSM Safety Benefits

OPPORTUNITY:

- IntelliDriveSM can provide **transportation agencies**:
- New information on **real-time environmental** status of vehicles;
 - New information from vehicle sensors for **road weather management**.
- IntelliDriveSM can provide **consumers**:
- Real time info on **vehicle status (fuel/emissions)**.
 - Real time info on **road conditions**.



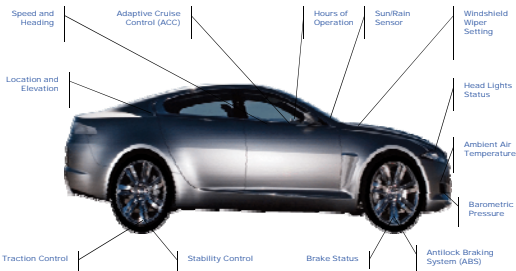
IntelliDriveSM Safety Benefits

IMAGINE:

- **Managing** the system if you had real-time vehicle emissions data
- Managing the road for **weather** events if you had vehicle info
- **Planning your travel** based on real-time weather on all roads along your route



Imagine... an ambulance



Summary

- We know where we've been. The backbone ITS traditional technologies
- We know where we are. Current and recent ITS Initiatives such as NG9-1-1, Emergency Transportation Operations etc.
- We believe "IntelliDriveSM" is the vehicle for the future –

WHERE do YOU want to DRIVE IT?



Questions??

- Please raise your hand or type in the message box



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