

TRB EMS Subcommittee ANB10(5)

EMS Safety Summit 2012 Safety Systems, Strategies and Solutions

Response, Emergency Staging,
Communications, Uniform Management, and
Evacuation (R.E.S.C.U.M.E.)

Linda D. Dodge
ITS Joint Program Office, US DOT

February 29th, 2012



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Overview

- USDOT ITS Program Background
- Traffic Incident Management & ITS
- Mobility Program
- NG9-1-1 Status
- R.E.S.C.U.M.E. Status and Plans

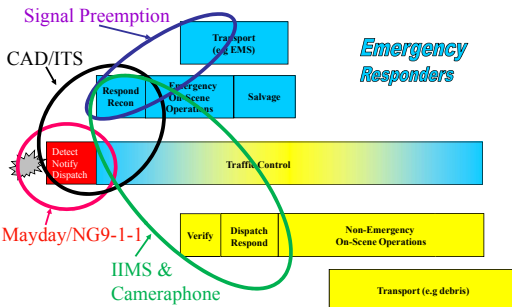


ITS Research Program

Applications	Safety			Mobility		Environment	
	V2V	V2I	Safety Pilot	Real Time Data Capture & Management	Dynamic Mobility Applications	AERIS	Road Weather Applications
Technology	Harmonization of International Standards & Architecture						
	Human Factors						
	Systems Engineering						
	Certification						
Policy	Test Environments						
	Deployment Scenarios						
	Financing & Investment Models						
	Operations & Governance						
Institutional Issues							



Traffic Incident Management & ITS



Data Capture and Management Program

- Enable systematic data capture
- Develop usable data environments
- Reduce cost and institutional barriers
- Determine infrastructure requirements



Dynamic Mobility Applications

- Expedite development, testing, commercialization, and deployment of innovative mobility applications
- Create applications using DCM data environments
- Develop and assess decision support applications
- Demonstrate promising applications
- Determine infrastructure requirements



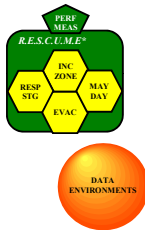
Application Bundles

- Expedite development, testing, commercialization, and deployment of innovative mobility applications
- Create applications using DCM data environments
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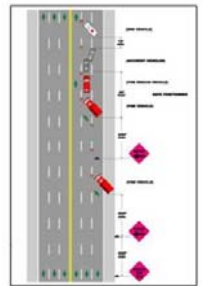
Response, Emergency Staging and Communications, Uniform Management, and Evacuation (R.E.S.C.U.M.E.)

- Incident Scene Pre-Arrival Staging Guidance for Emergency Responders (RESP-STG)
- Incident Scene Work Zone Alerts for Drivers and Workers (INC-ZONE)
- Emergency Communications and Evacuation (EVAC)
- Mayday Relay (MAYDAY)



Incident Scene Pre-Arrival Staging Guidance for Emergency Responders (RESP-STG)

- Situational awareness info to responders while en route
- Input to responder vehicle routing, staging and secondary dispatch decisions
 - Staging plans
 - Satellite imagery
 - GIS data
 - Current weather data
 - Real-time modeling outputs



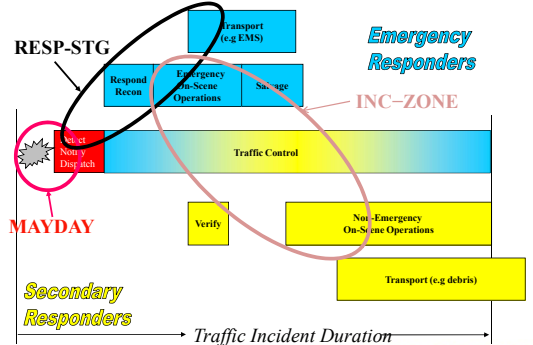
Mayday Relay (MAYDAY)

- Sends a crash notification message a roadside DSRC hot spot, likely relayed via a properly-equipped passing vehicle
- This information is then forwarded to the appropriate PSAP based on the crash location.



Source: Greg Carter Herald Sun

Traffic Incident Management and R.E.S.C.U.M.E.



Incident Scene Work Zone Alerts for Drivers and Workers (INC-ZONE)

- Two components
- 1. Alerts drivers of lane closings and unsafe speeds for temporary work zones
 - Could be augmented with merging and speed guidance to drivers.
- 2. Warns on-scene workers of vehicles with trajectories or speeds that pose a high risk to their safety



Next Generation 911 Initiative

Long Term Goal:

To enable the general public to make a 911 "call" (any real-time communication – voice, text, or video) from any wired, wireless, or Internet Protocol (IP)-based device, to the PSAP, and enable data sharing with the emergency communication network

Major Milestones:

- National architecture and high-level design for NG911 System
- Proof of Concept Demonstration
- Transition plan for NG9-1-1 implementation

Project Results:

<http://www.its.dot.gov/NG911>



- Technical
 - Architecture / Proof of Concept
- Operational / Institutional
 - Transition Plan
 - Analysis of Cost, Value & Risk
 - What's Next?
 - <http://www.tsag-its.org/projects/nextgen911.php>

Emergency Comm and Evacuation (EVAC)

- Addresses the needs of two different evacuee groups:
 1. Those using their own transportation
 - Dynamic route guidance information
 - Current traffic and road conditions
 - Location of available lodging
 - Location of fuel, food, water, cash machines and other necessities
 2. Those requiring assistance
 - Identify and locate people who are more likely to require guidance and assistance
 - Identify existing service providers and other available resources



Summary: DMA – R.E.S.C.U.M.E.

- Early 2012: Implement the Open Source Portal
- Early 2012: Continuing to engage stakeholders on DMA program direction
- May 2012: Complete ConOps for each bundle
- June 2012: Develop Phase 2 Integrated Research Plan
- September 2012: Procure and begin developing selected DMA bundles
 - Challenges
 - Small Scale Field Tests
 - Simulation Studies

For More Information



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