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**Safety Service Patrol Idea Sharing Network – Session II: Performance Measures**

# Maryland State Highway Administration



- **Coordinated Highways Action Response Team (CHART):**
  - State Highway Administration (SHA), Maryland State Police (MSP), the Maryland Transportation Authority (MDTA) and local jurisdictions' transportation agencies
  - Improve mobility, congestion relief, and safety for Maryland's highway users
- **Timeline:**
  - **1970's/1980's:** Founded through "Reach the Beach"
  - **1984:** Changed to ESTO
- **Three regional Traffic Operation Centers (TOC's):**
  - Washington area (1989)
  - Baltimore (1990)
  - Frederick (2006)
- **June 2013:** CHART expands to 24/7 operations



# Coordinated Highways Action Response Team



- **Name:** Coordinated Highways Action Response Team
- **Launch Year:** 1997
- **Fleet Size:** 76 vehicles
- **Patrol Size:** 3-4 ERTs and 1 Field Supervisor
- **Coverage Area:** Baltimore, 136.6 CLM; Washington, 102.96 CLM; Frederick, 105.86 CLM
- **Hours of Operation:**
  - **Baltimore and Washington, D.C. Regions:** 24/7
  - **Frederick Region:** M-F 0500-2100, S & Su 0900-2100
- **2014:**
  - Assisted 36,612 motorists (One every 14 minutes)
  - Managed 24,212 incidents (One every 22 minutes)





## Performance Measures – ERT/Driver

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- **Current**
  - No. of Incidents handled
  - No. of Motorists Assist
- **Proposed/Additional (Statewide, Region, Team, ERT)**
  - Response Time Average (Some reservation)
  - Lane Clearance Average



- **Current**

- Location, number, severity of incidents
  - Gained from historic MAARS (Maryland Automated Accident Reporting System)
  - Info can be two years old
- Road closure information from CHART Reporting Tool
  - Archived data since 2001 entered the 1,000,000<sup>th</sup> event last year
  - Shared reporting system with MDTA



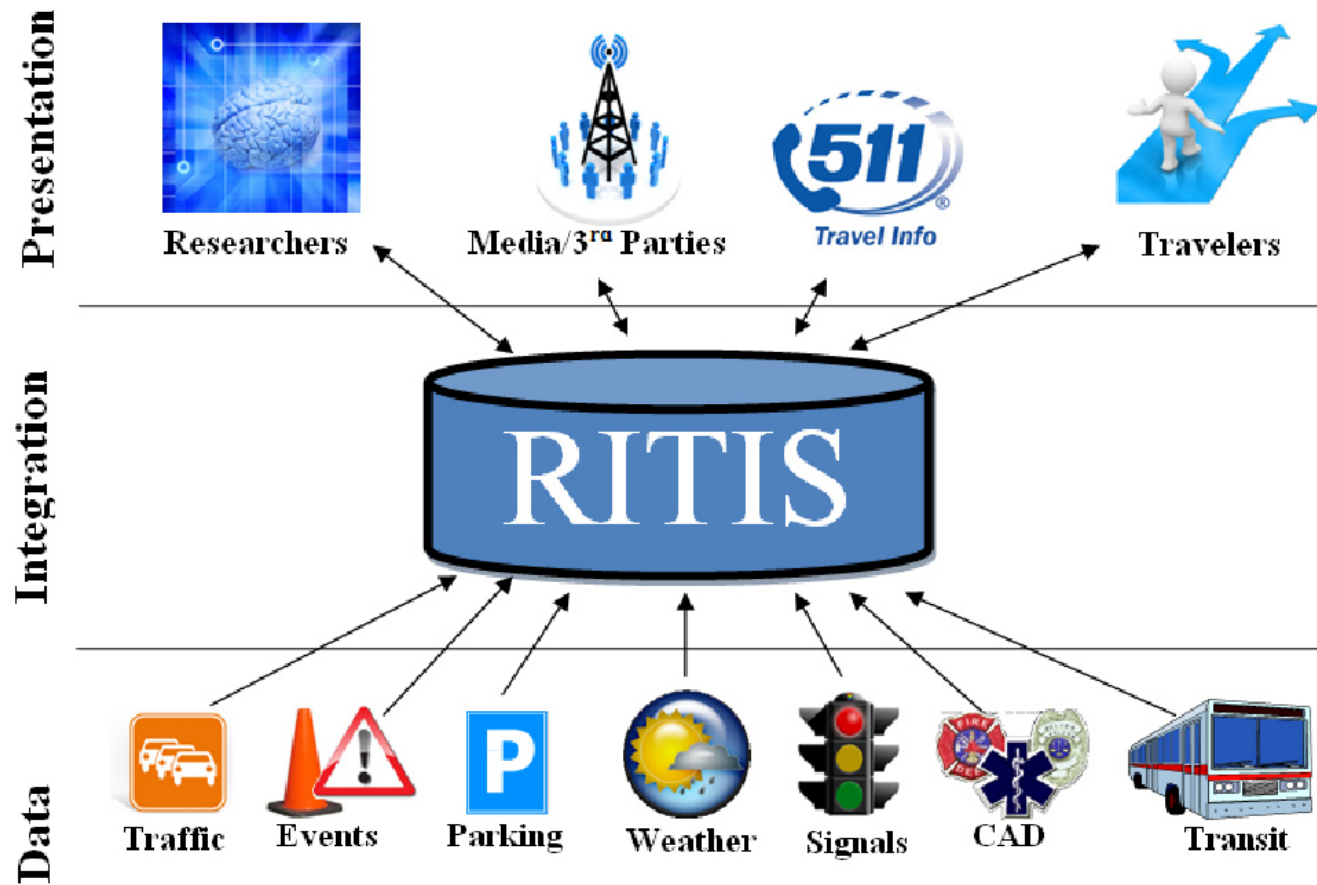
- **Proposed**

- Data from ACRS (Automated Crash Reporting System)
- Real-time data from certain reporting fields
- MSP CAD data integration
- Additional ITS devices (more timely verification)



- Sponsors the Transportation Engineering Program under the Civil and Engineering Department within the A. James Clark School of Engineering at the University of Maryland
- CHART information sent to the Regional Integrated Transportation Information System (RITIS) within the Center for Advanced Transportation Technology Laboratory (CATT Lab)

# Data Integration





## Data Analysis and Use

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- Benefit to cost ratios of currently patrolled routes
- Projections and rankings of efficiencies gained in unpatrolled regions and segments of roadways
- Ongoing justification for current operations and for potential expansion of the CHART program



## Data Supported Expansion

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- **2013:** Pilot patrol project for overnight and weekend patrols
- Data gathered and analyzed provided justification for expansion of the patrol (Field Operations) division
- Expansion supported by FHWA due to the benefit to cost projection
- Patrol workforce doubled
- Current benefit to cost ratio for CHART is 32:1.



## CHART Funding

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- SHA liaison works with FHWA through their region representative
- CHART funding has been and continues to be supported under Congestion Mitigation and Air Quality (CMAQ) and the Surface Transportation Program (STP) funds
- CHART is a specific, state-legislated line item under the Consolidated Transportation Program.

# Data Supports Funding



CHART Operations

Reduction in incident duration

Savings in delay

Saving in fuel consumption, and emission



## Gathering Effective Performance Measures

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- Robust system that retains a history of accurate and comprehensive data
- Partnerships that provide information
- An academic partner to analyze and document benefits



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