



Best Practices in Multi-Agency Collaboration: The I-95 Corridor Coalition



**George Schoener, Executive Director
I-95 Corridor Coalition**

Missouri Operations Summit
September 25-26, 2012



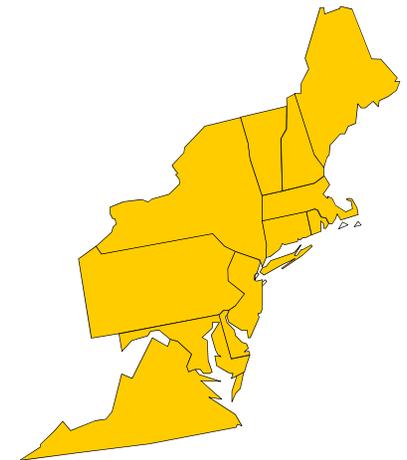
The Formation of the I-95 Corridor Coalition: Why



The Problem

(1992)

- 20% of the US population in only 6.2% of US landmass
- Annual Congestion Costs:
 - \$11 Billion in Top 4 Corridor Cities
 - \$7 Billion of the Cost due to Incident-Related Congestion





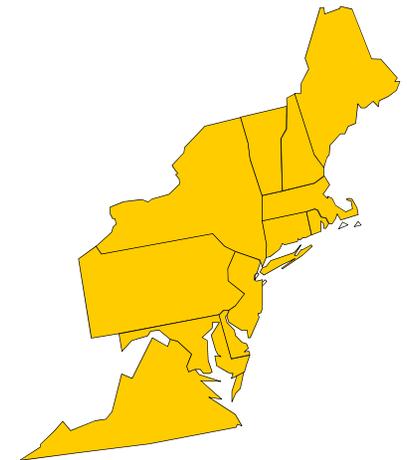
If the Corridor were California... it Would be Analyzed as a Single Entity





The Answer

- **No**: Business as Usual
(Expanding or Building Roads)
- **Yes**: Increasing the Capacity of Existing Systems through Better Operations and Management
 - Multi-regional coordination and information sharing





The Formation of the I-95 Corridor Coalition: How



Members

- **Departments of Transportation** (12 – Maine to Virginia & DC)
- **Major Transportation Authorities** (in the Northeast)
- **Federal Highway Administration**
- **AMTRAK**
- **Associations**
 - ATA, TRANSCOM, ITS America, National Private Truck Council



Organizational Issues

- Creating structure and process that were inclusive, yet respected autonomy of each agency
- Responding to member agencies' needs
 - Recognizing that members were at very different stages of ITS planning or implementation
- Providing value to rural and to urban areas
- Avoiding burden of by-laws, rules and formal membership agreements



Program

- **Perspective:** Highway
- **Focus:** Operations, Incident Management
- **Projects:**
 - Regional Incident Management
 - Information Exchange
 - Training

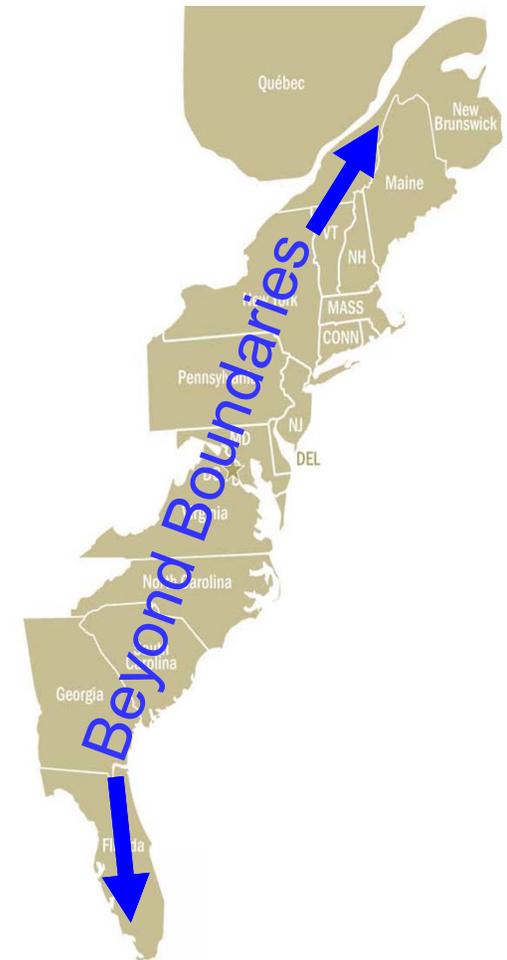


The I-95 Corridor Coalition: Now



Geographic Expansion

- An alliance of transportation agencies and related organizations from Maine to Florida (with affiliates in Canada)
- With a transportation system of:
 - \$4.5 trillion economy (40% of US GDP)
 - 21% of nation's road miles; 35% of nation's VMT
 - 5.3 billion tons of freight shipments annually
- Providing a forum to address transportation management and operations issues of common interest





Programmatic, Modal, and Disciplinary Expansion

- Focus is on long distance passenger travel and freight movement both domestically and internationally (US-Canada)
- All modes of transportation – highway, rail, water
- Disciplines:
 - Public Agencies (Federal, State, MPO, Local)
 - Port Authorities
 - Planning/Operations
 - Public Safety/Law Enforcement
 - Railroads
 - Trucking





Lessons Learned

- Institutional relationships are at least as important, and sometimes more difficult, than technical issues
- Focus on doing things that are important to members through the 4-C's (communication, cooperation, coordination, and consensus)
- Strength comes from the commitment and participation of the members in a spirit of cooperation
- Recognize that members are volunteers, all of whom have full time jobs, and provide the support to carry out projects through staff/consultant support
- Advance “high risk,” “high gain” projects



Operations Highlights: Multi-State Traveler Information

- Vehicle Probe Project (VPP) - Real Time Travel Time and Speeds



The Public-Private Partnership: Data Acquisition/System Performance

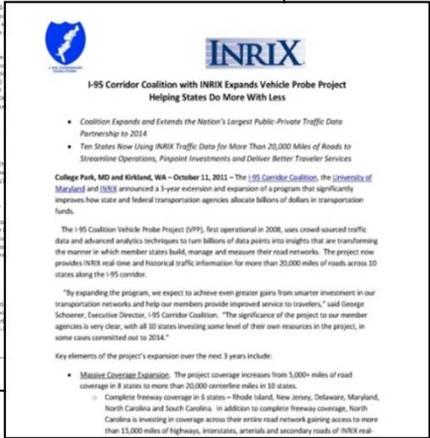
Why?	Cost prohibitive to provide speed and travel time information along a long-distance corridor through conventional detection
What?	Multi-state traffic monitoring system (real-time and archived data)
How?	RFI/RFP Competitive procurement-probe based; independent validation



I-95 CORRIDOR COALITION

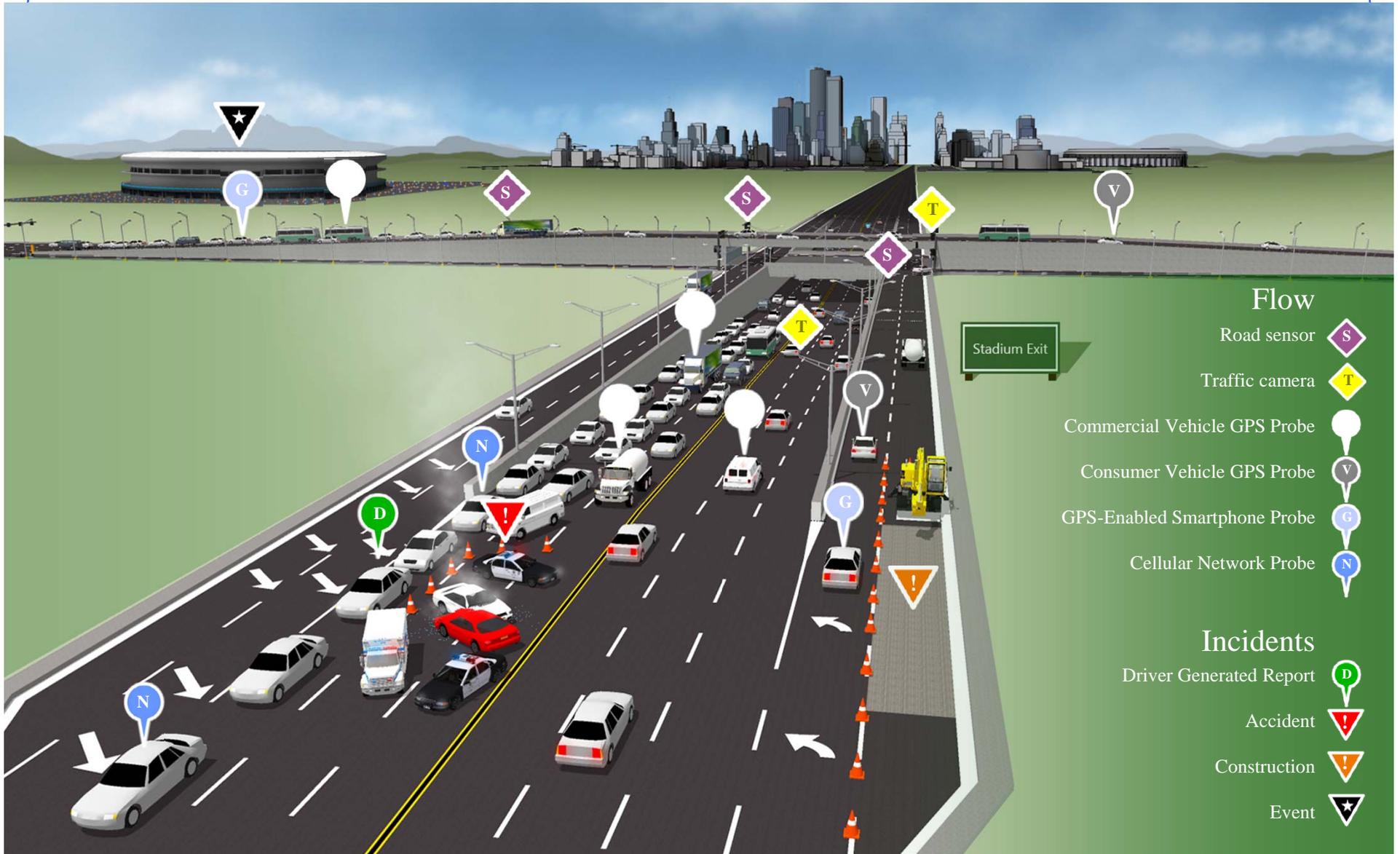
VPP Timeline / Milestones

- **2006:** Project planning begins, RFIs
- **2007:** RFP Process, INRIX selected
- **2008**
 - Live Service Starts July 2008
 - NJ, NC Statewide Expansion
- **2009**
 - Pay for performance concept established
 - PA, SC Expansions
- **2010**
 - FL (Northern) Expansion
 - MD Statewide Expansion
- **2011**
 - Master Contract Extended to 2014
 - VA (Hampton Roads), FL (East Coast), GA, RI Expansions
 - States paying for 50% of core coverage and all expansions
- **2012**
 - VA and SC Statewide Expansions
 - Coverage expanding to Maine, New Hampshire, Massachusetts, Connecticut, Washington DC
 - 4 year service milestone reached





The INRIX Crowd-Sourced Traffic Community

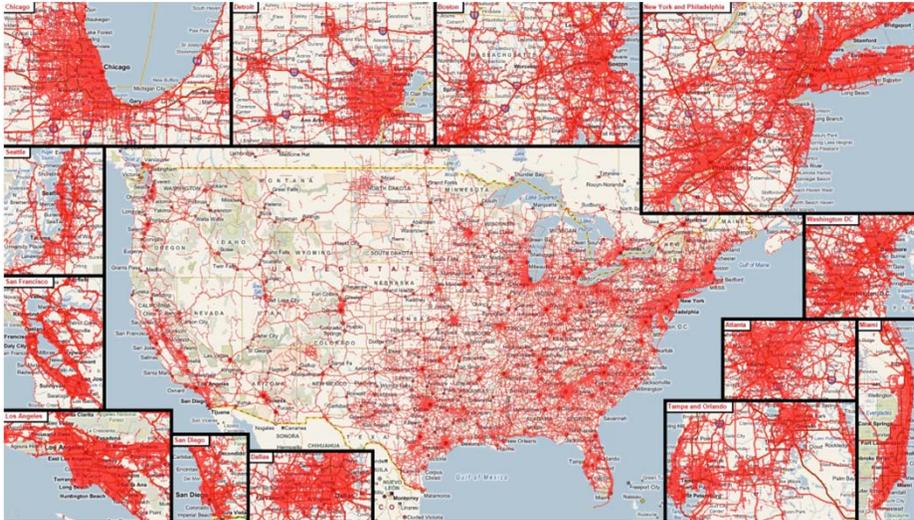




INRIX Traffic Intelligence Network

Tens of billions of real-time GPS reports per month

North America

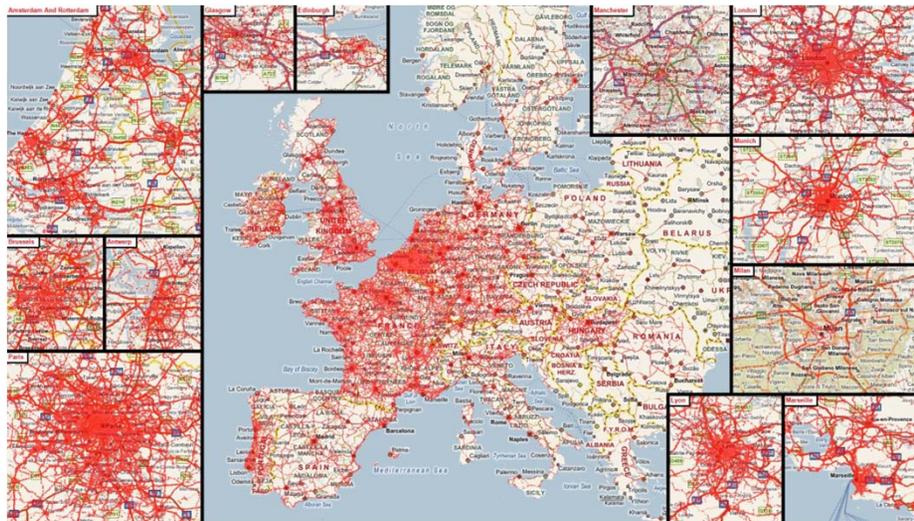


Examples of 15-Minute Real-Time Snapshots

Beijing



Europe



Shanghai

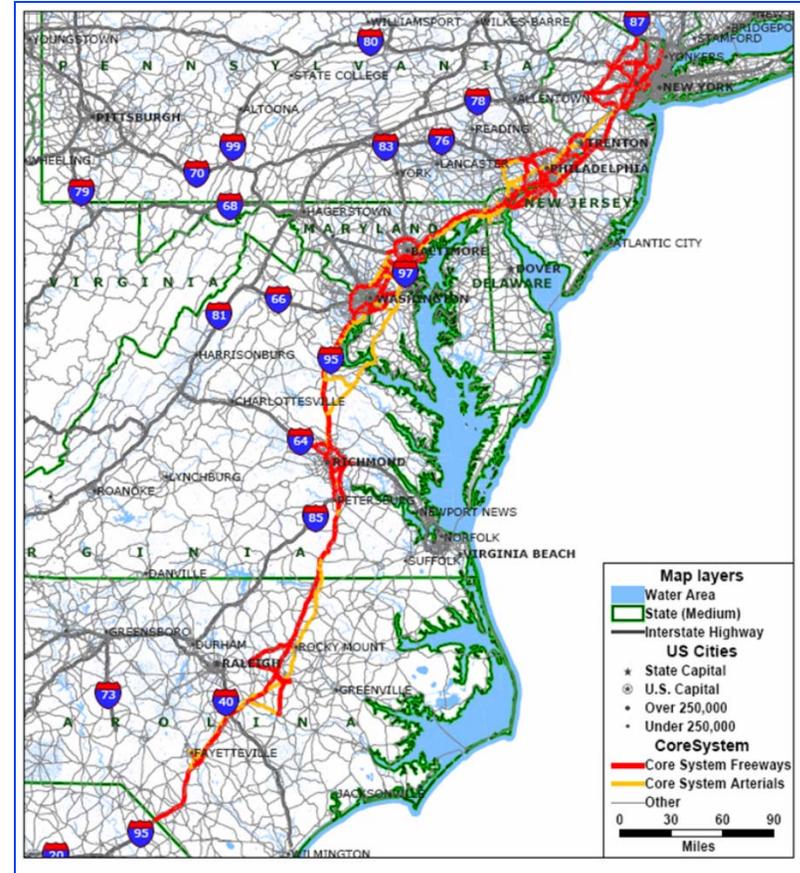




VPP – Early Project

Report Data by Road Segment

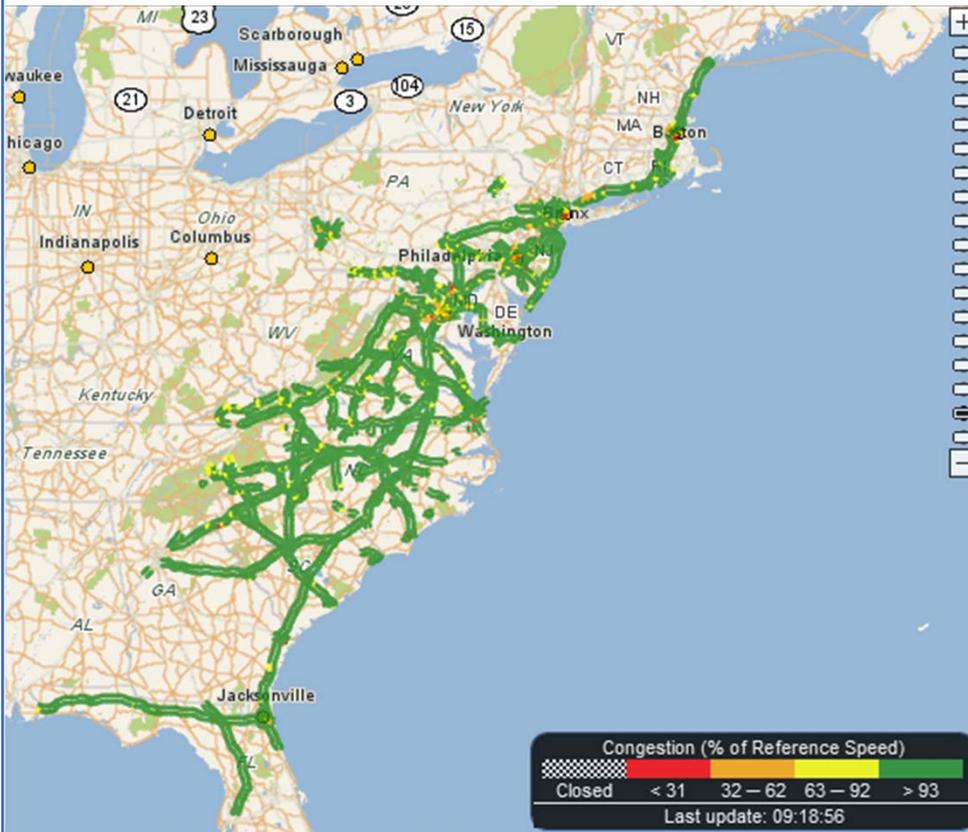
Overall Total of Road Segments				
State	Freeway	Arterial	Expansions	Total
NJ	1439	222	1067	2728
PA	348	479	0	827
DE	94	151	0	245
MD	934	1015	0	1949
VA	708	347	0	1055
NC	321	155	1755	2231
Total	3844	2369	2822	9035





I-95 CORRIDOR
COALITION

Current Contracted Coverage

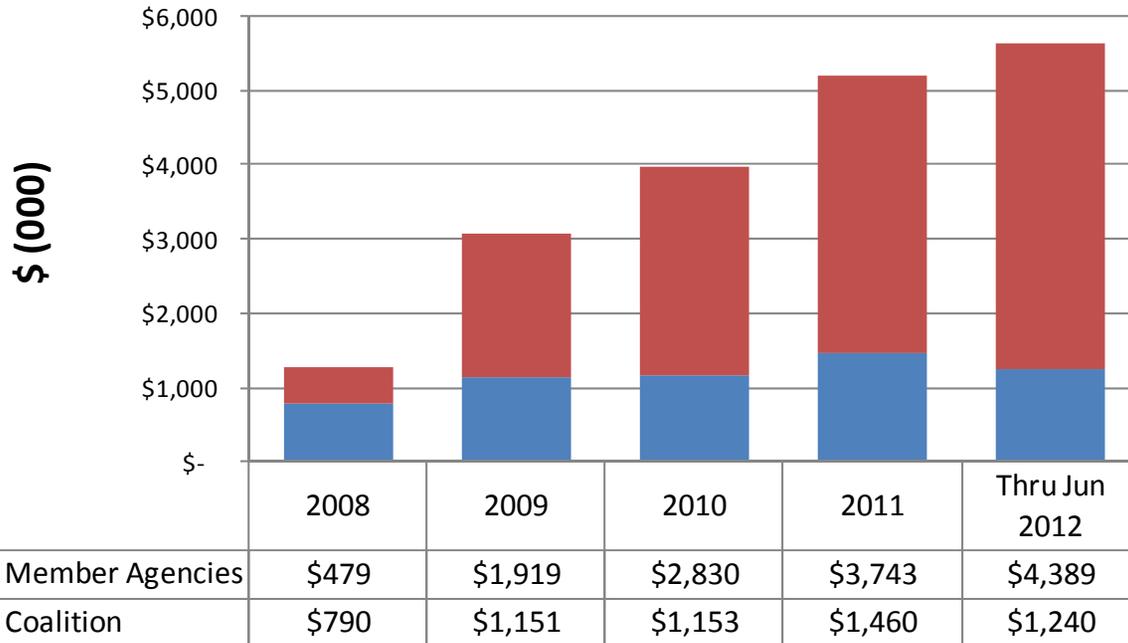


Coverage updated as of September 2012

State	Freeway Miles	Other Miles	Total Miles
Maine	66	0	66
New Hampshire	16	0	16
Massachusetts	96	0	96
Rhode Island	162	597	759
Connecticut	111	0	111
New Jersey	895	63	958
Pennsylvania	637	118	755
Maryland	781	3779	4,560
Washington DC	31	233	264
Virginia	1,411	7,213	8,624
North Carolina	1,553	12,996	14,549
South Carolina	934	7,187	8,121
Georgia	398	0	398
Florida	718	0	718
Total	7,809	32,186	39,995



Coalition Funding Leverage Vehicle Probe Project - INRIX Subtotal by Year



Member Agency Funding

End of Year Totals (Freeways)

	CY 2008	CY 2009	CY 2010	CY 2011	Current
Fwy Miles Covered	2,926	4,160	5,113	7,063	7,550
# of States Covered	6	7	8	10	14
# of States Invested	2	4	7	10	9

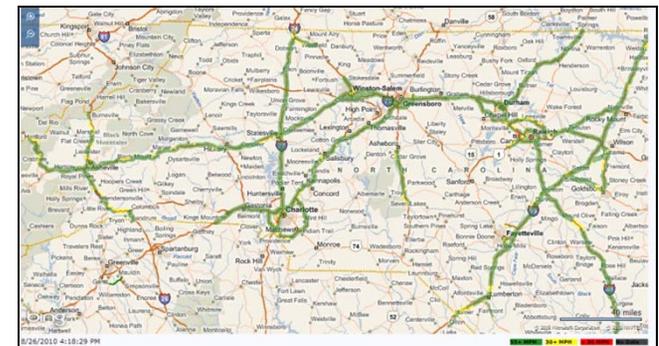


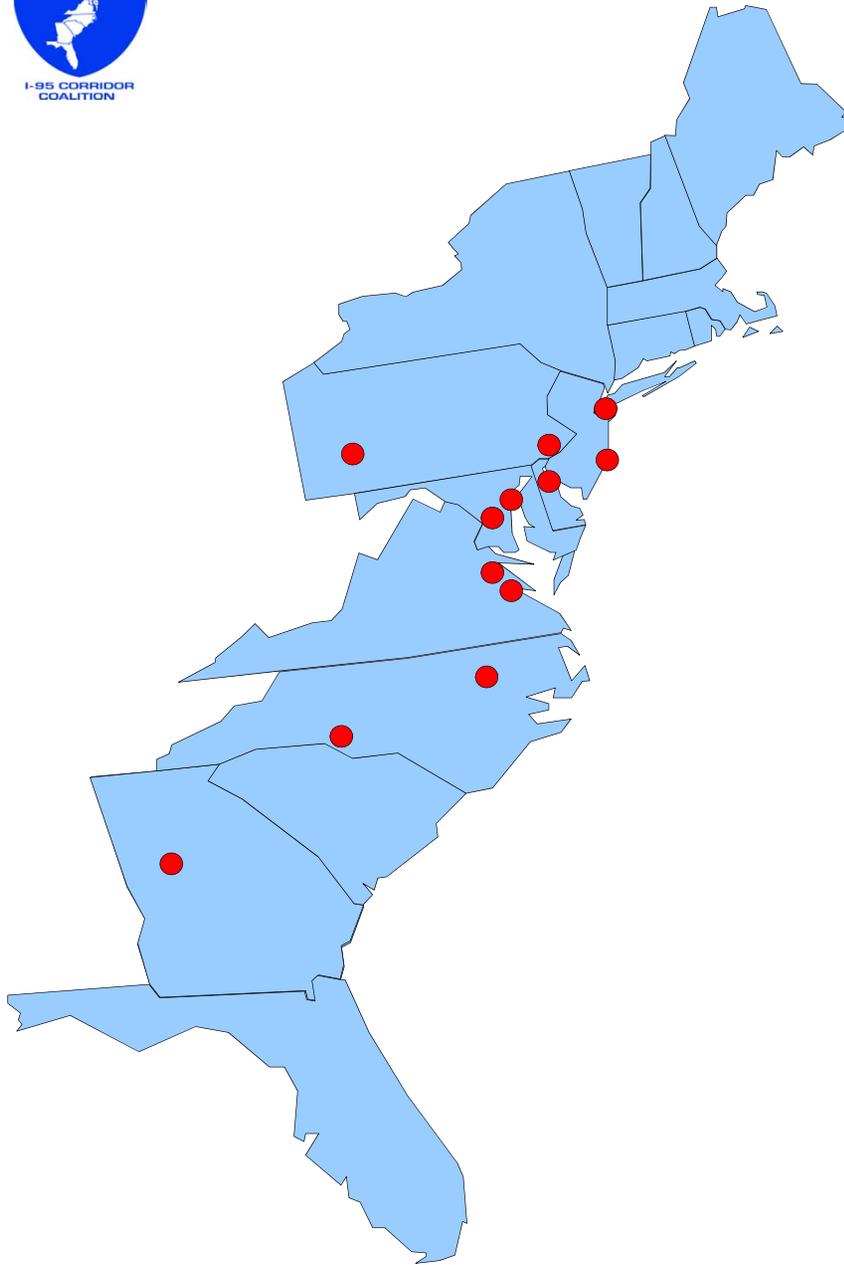
Noteworthy VPP Applications

- Ops Center Monitoring
 - Monitoring Site – ME, NH, NY, NJ, PA, DE, MD, DC, VA, NC, SC, GA, FL
 - TMC Software Integration – RITIS, NJ, MD, VA, SC, GA, FL
 - **Big Benefit – cross border monitoring**
- Travel Times on Signs: MD, VA, SC
- Maps/Travel Times on Web Sites: NJ, PA, MD, VA, NC, SC, FL
- Welcome Center/Mall Displays: VA
- System Performance Measures: Several States and MPOs



I-83 N. 10 MI AHEAD
21 MINUTES





MPOs using VPP/ INRIX data

- More than a dozen MPOs in the Coalition are using the VPP data and the VPP Suite
- As a result of the widespread use by MPOs and planners, a **User Group** was created *“To expand and improve the use and benefit of the VPP Suite for the member agencies”* by addressing the needs of both the users and the developers



How MPOs are Using Data from the Vehicle Probe Project

1. Helping MPOs do existing work better
 - Congestion Management Process assessments
 - Travel forecasting model calibration
2. Enabling new types of analyses
 - Reliability
 - Operations/incident management
3. Supporting the MAP-21 focus on performance-driven planning



CMP Example – MWCOCG

2010 CONGESTION MANAGEMENT PROCESS (CMP) TECHNICAL REPORT

September 3, 2010

National Capital Region Transportation Planning Board
Metropolitan Washington Council of Governments

The preparation of this report was financially aided through grants from the District of Columbia Department of Transportation; Maryland Department of Transportation; Virginia Department of Transportation; U.S. Department of Transportation, Federal Highway Administration; and the U.S. Department of Transportation, Federal Transit Administration, under the Federal Transit Act. The material herein does not necessarily reflect the views of the sponsoring agencies.

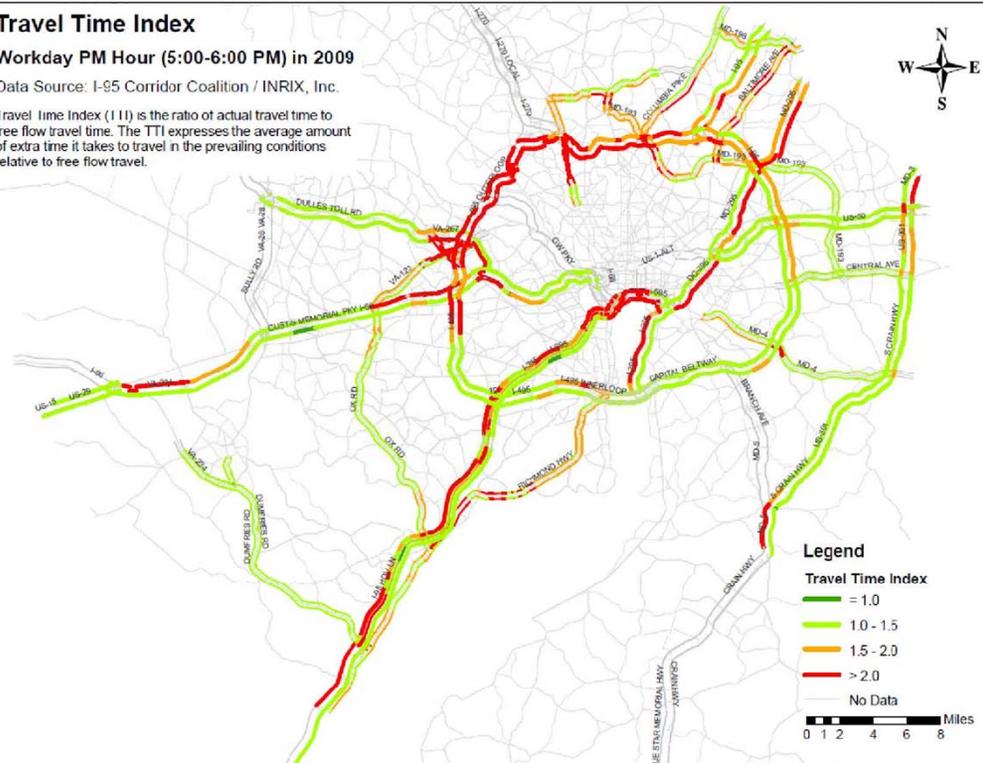
Figure D12: Travel Time Index: 2009 Workday Afternoon 5:00-6:00 PM for the I-95 Corridor Coalition Covered Highways

Travel Time Index

Workday PM Hour (5:00-6:00 PM) in 2009

Data Source: I-95 Corridor Coalition / INRIX, Inc.

Travel Time Index (TTI) is the ratio of actual travel time to free flow travel time. The TTI expresses the average amount of extra time it takes to travel in the prevailing conditions relative to free flow travel.

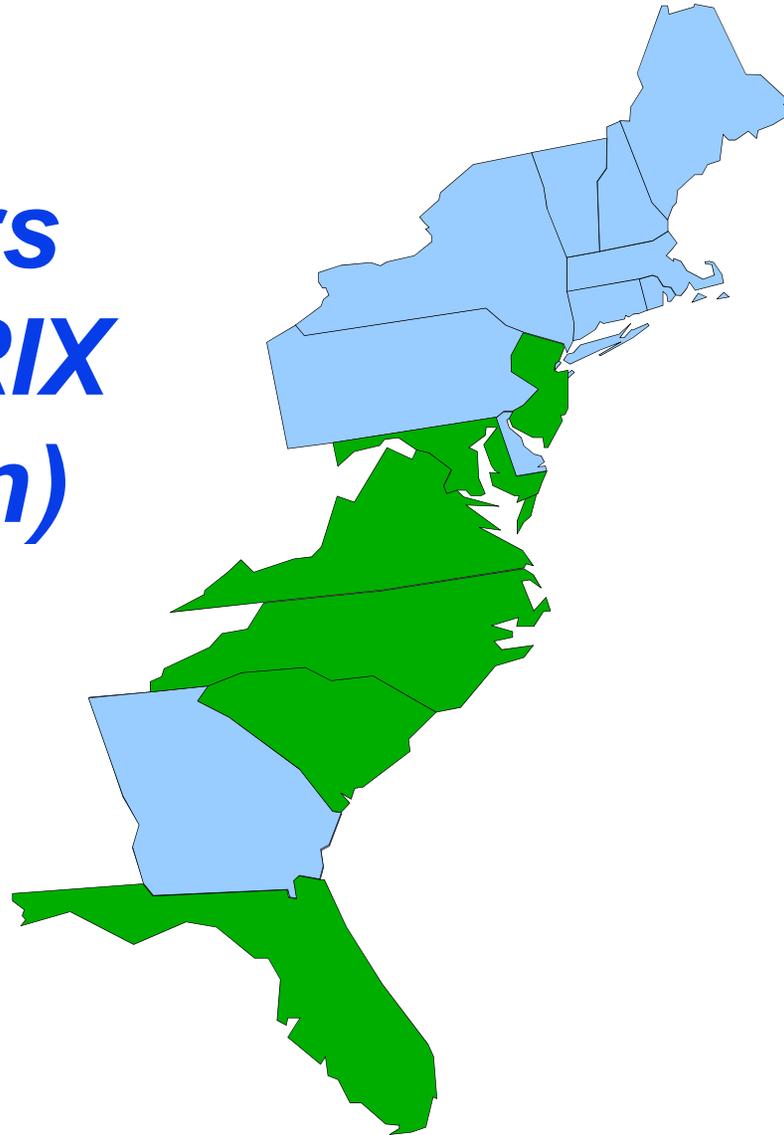


From Executive Summary:

→ “The [VPP] provides the CMP an innovative and profound data source for both congestion and reliability analyses.”



***State Planners
using VPP/INRIX
data (in Green)***





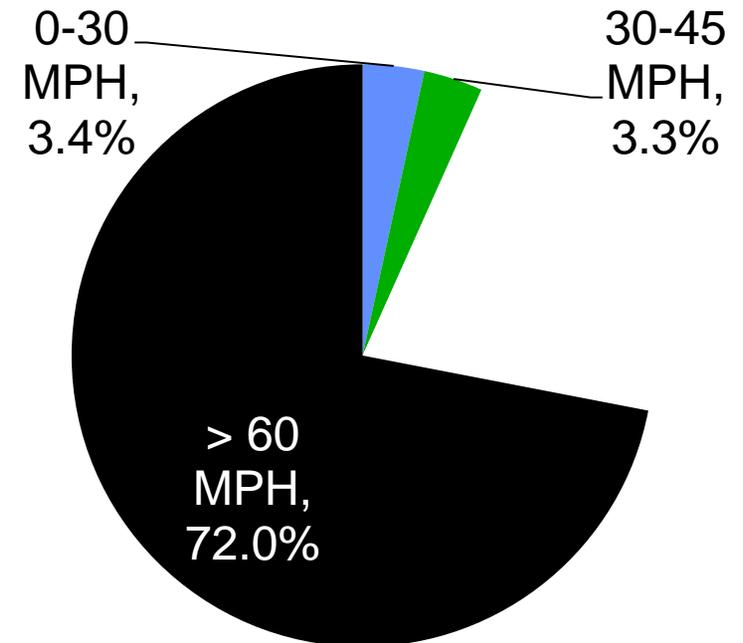
I-95 VPP Data Validation

Cumulative Results (2008 – 2012)

Results by Speed Range

Speed Range (Contract Rqmt)	Absolute Speed Error (<10mph)	Speed Error Bias (<5mph)	Hours of Data Collection
0-30 MPH	4.9	2.9	1,450
30-45 MPH	5.9	2.8	1,403
45-60 MPH	2.2	0.5	9,065
> 60 MPH	2.1	-1.7	30,599
All Speeds	2.4	-0.9	42,517

Samples by Speed Range



- 37 site tests, 9 states, 781 miles
- No penalties applied during life of project
- Credits generated in both 0-30 and 30-45 speed bands

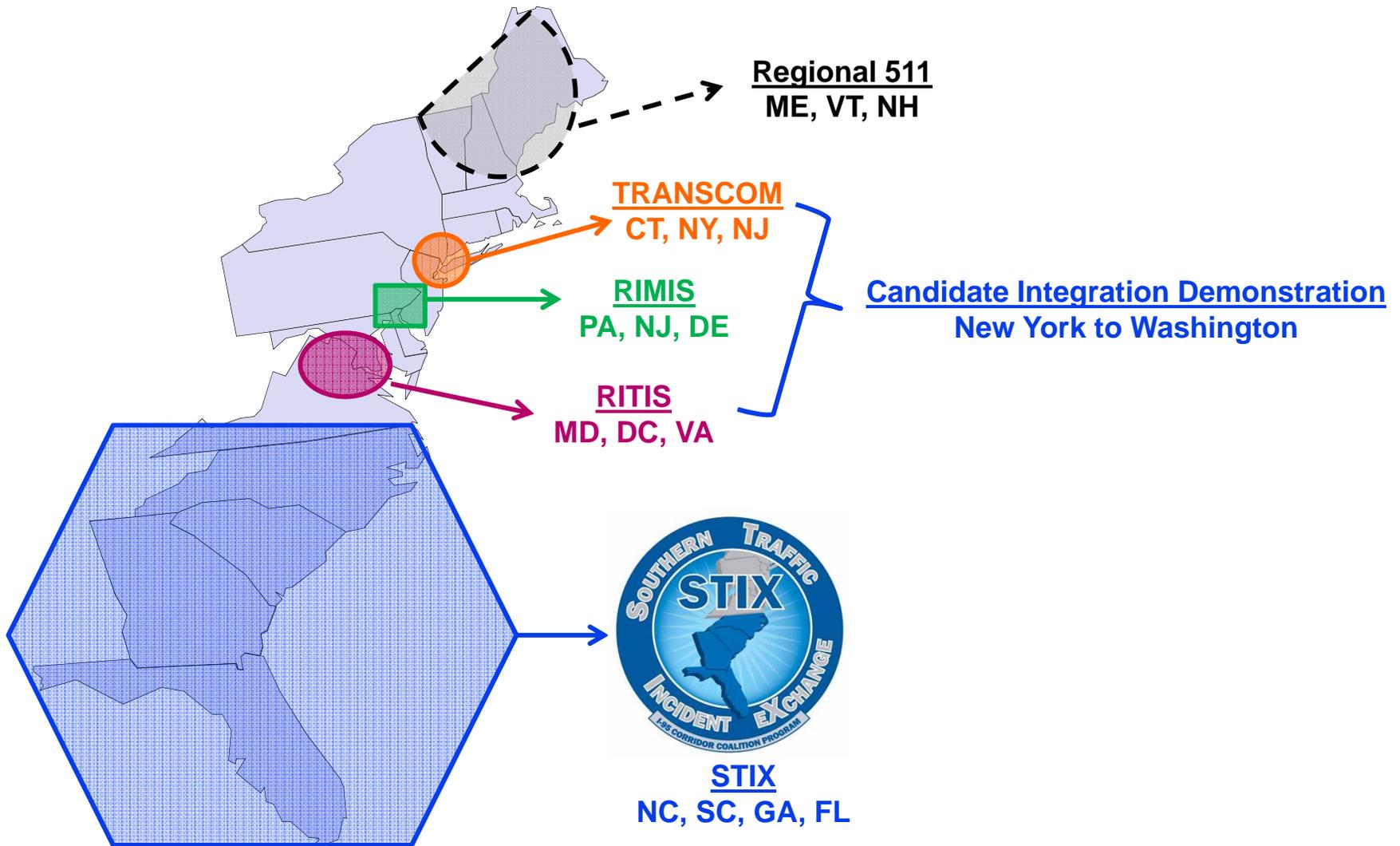


Operations Highlights: Multi-State Information Sharing and Coordinated Incident Management

- Regional Information Sharing
- Coordinated Incident Management
 - Southern Traffic Incident Exchange
 - Regional Highway Operations Groups
 - Virtual Incident Management Training



Regional Information Sharing





Southern Traffic Incident Exchange (STIX)

- STIX program developed and implemented for 4 Southern States – NC, SC, FL, and GA
 - Previously, no mechanism for southern states' incident information exchange
 - GADOT serves as central communications
- Ongoing Post-Incident Debriefings, Stakeholder Outreach, and Information Exchange Webinars

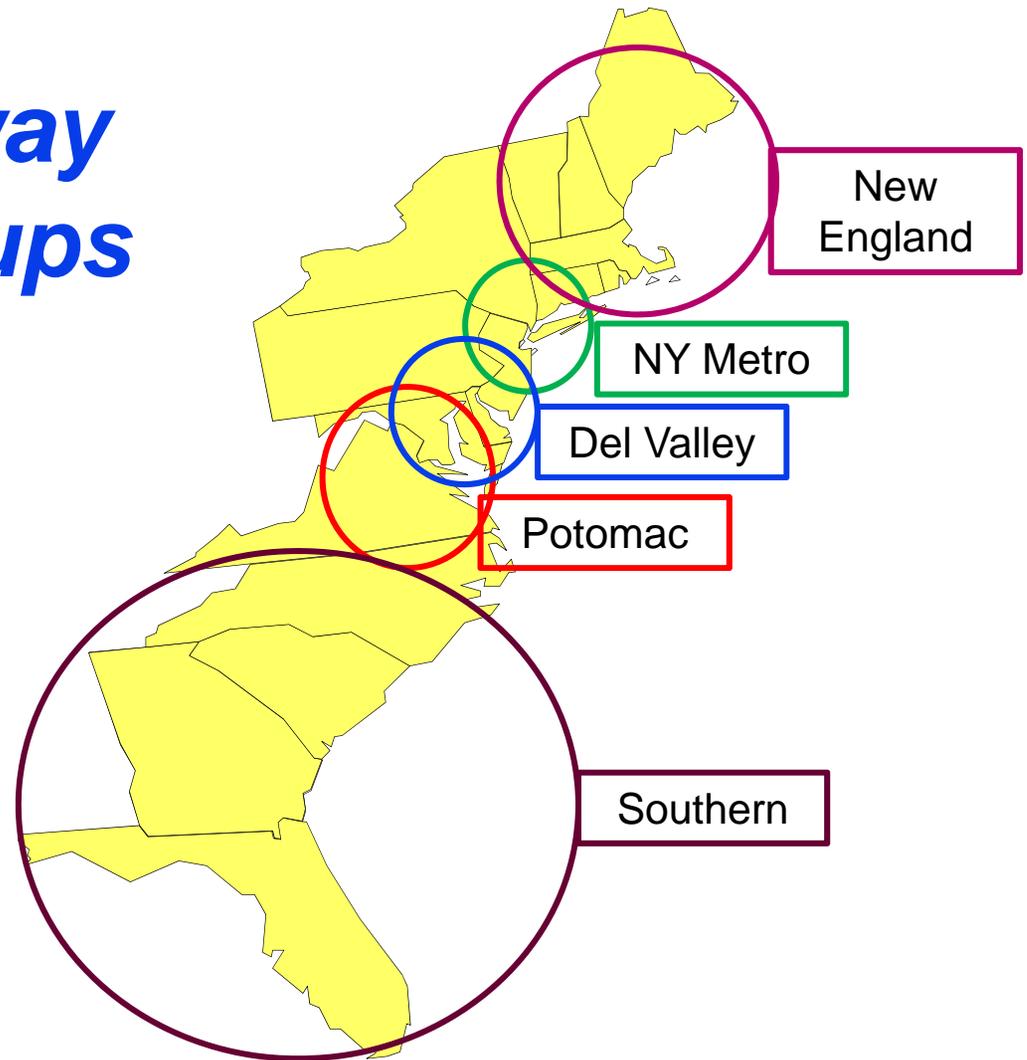




Regional Highway Operations Groups (HOGs)

HOGs members include:

- Departments of Transportation
- Law Enforcement Agencies
- Public Safety Personnel
- Emergency Medical Services
- Fire Departments
- Towing Companies





3-D Virtual Interactive Transportation Management and First Responder Training System

- An intensive training program that uses multi-player computer gaming simulation technology and distance-based learning technologies to test, validate, and reinforce the dissemination of best incident management practices across the Coalition region.
- Three-dimensional software program enables practical, scenario-based, interactive, real-time incident management training for numerous responders, trainers and “victims” simultaneously.





Challenges Going Forward

- **\$\$\$ - SUSTAINABLE FUNDING**
- Maintaining fully engaged “Champions” at all levels



For Further Information:

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www.i95coalition.org

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