

WEBINAR SESSION  
**ATMS TRAFFIC  
DETECTION**

Latest Emerging Technologies and  
Alternative Approaches



June 13<sup>th</sup>, 2013

**GPS Detection**

# Introduction – Pete Costello

- Since 2008: INRIX – Director Business Development, Public Sector covering the Americas
- Starting in 2002: PBS&J (now ATKINS) – ITS Group Manager
  - Supported AASHTO's 511 Deployment Coalition and North Carolina 511 Project Manager
- Starting in 1998: ITS America – Director, Telematics & Special Projects
  - Including traffic management, traveler information, public transit, rural ITS, electronic payment systems, etc.

# INRIX Connected Car Vision



Smartphone integration



Daily navigation



Multimodal routing



Road weather



EV range finder



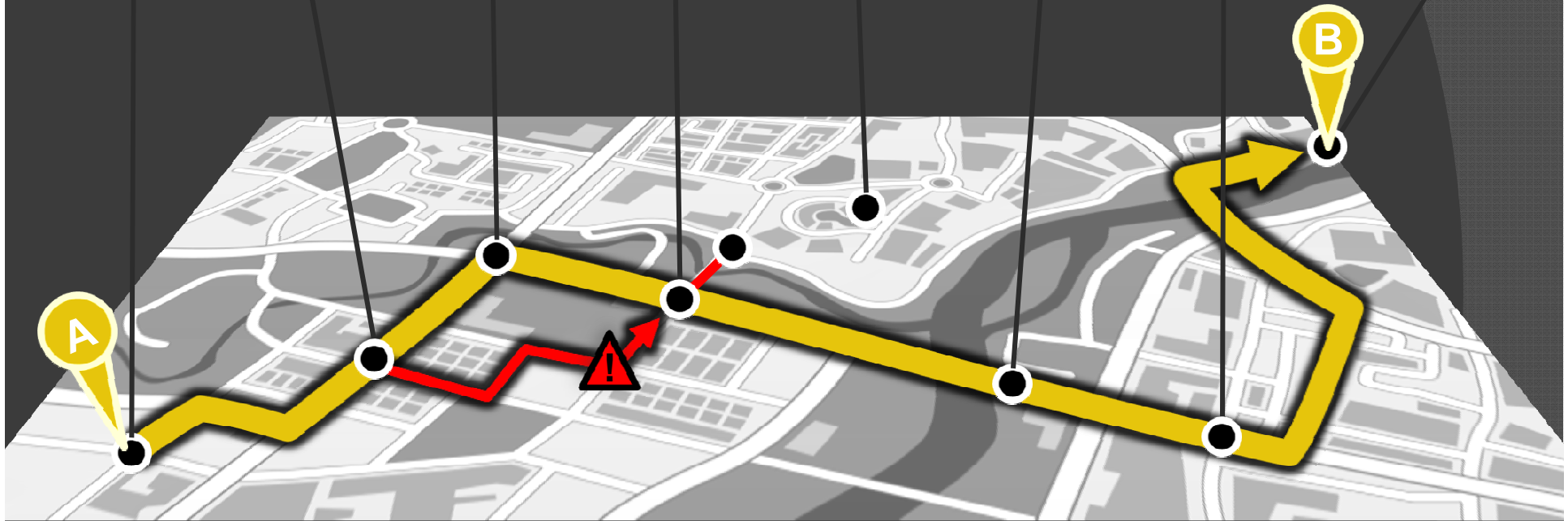
Safety cameras



Fuel prices



Parking availability



Will icy roads impact my route?

Is there traffic ahead of me?

Where is the cheapest fuel?

Will it be faster to drive to the train?

Is parking available near my destination?

# The Problem – Arizona 511 Example



# Crowdsourcing Data Collection



June 29, 2007

# INRIX Traffic – Free Apps



Available on the App Store



Download for Android



Windows Phone



BlackBerry 6.0

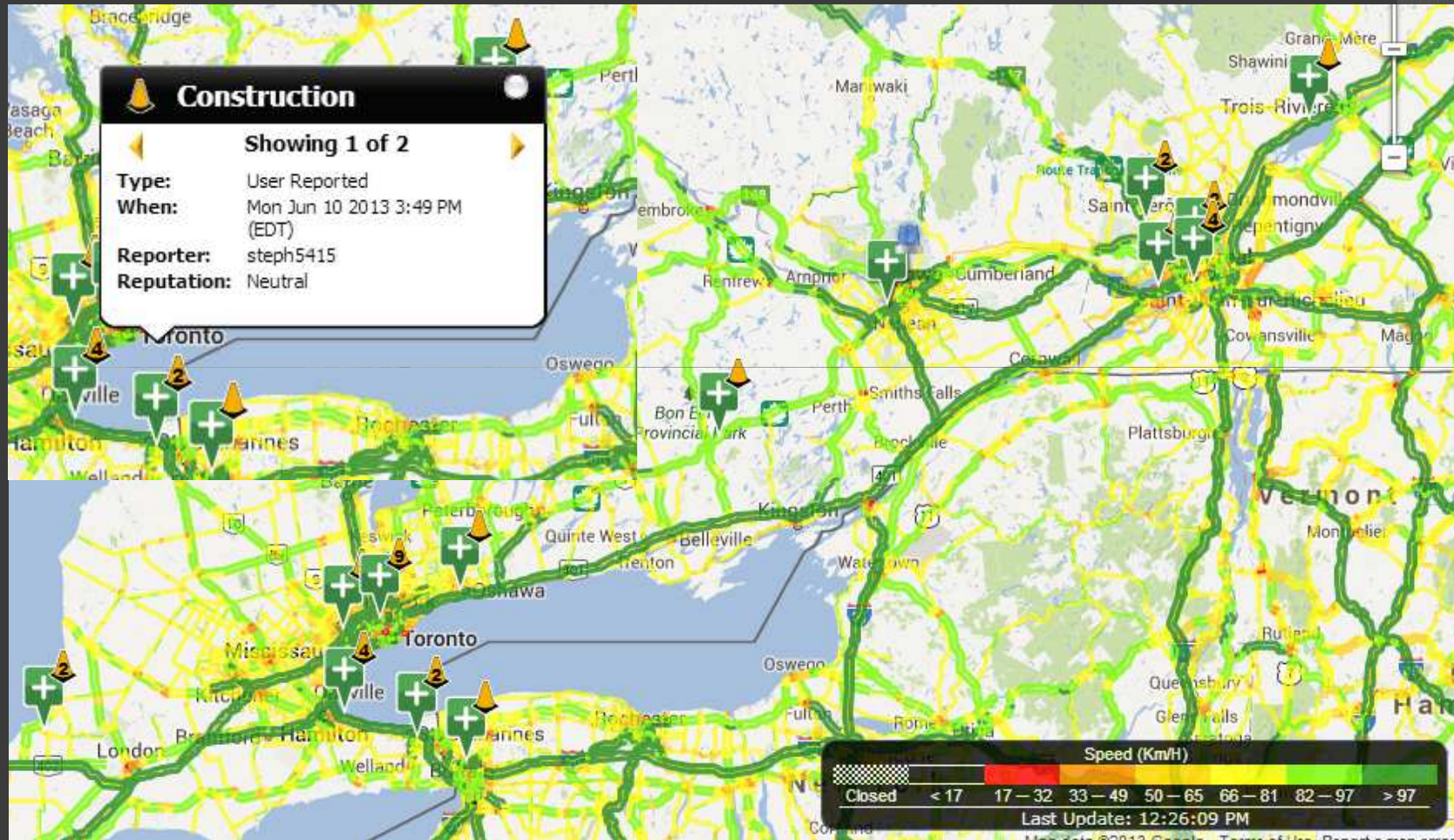
Windows 8



[www.inrixtraffic.com](http://www.inrixtraffic.com)



# User Generated Incidents



# Crowdsource with Fleets

Long Haul Trucks



Local Sales, Service & Delivery



Taxis

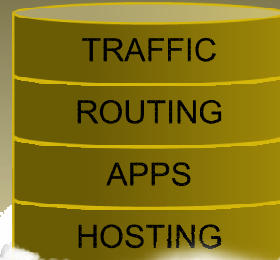


Airport Shuttles



# Proven Automotive Grade Connected Solutions

INRIX



**Single Platform**  
**Single Interface**  
**Single Protocol**  
**Globally**

Many service providers are struggling to deliver, but INRIX is on its second generation of auto/carrier-grade connected services



4 YEARS  
HOSTING

- Off-board routing
- Traffic services
- Syncmyride.com personalization
- SYNC Destinations app
- Send-to car



LAUNCHED IN  
2011

- Traffic Services
- Off-Board routing
- Connected Driving Services



Audi

LAUNCHED IN  
2011

- Traffic Services
- Fuel & other Connected Driver Services



entune

LAUNCHED IN  
2011

- Traffic Services

Pioneer

LAUNCHED IN  
2011

- Pioneer App Radio
- Pioneer Routing and Traffic

KENWOOD

IN PRODUCTION

- Traffic Services
- Parking
- Fuel prices
- Weather

# The INRIX Traffic Intelligence Platform

Massive  
Input Data

Technology  
Platform

Products &  
Optimized Solutions



UBIQUITOUS

ACCURATE

PREDICTIVE

ACTIONABLE

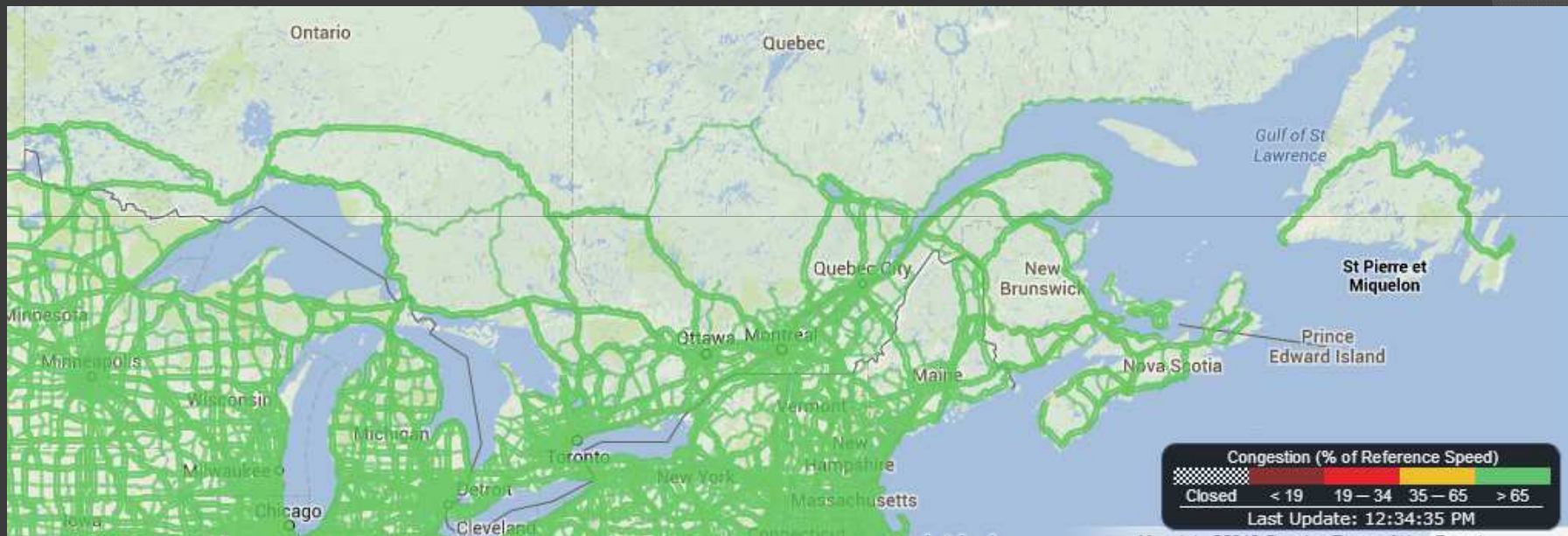


# The Cloud



# INRIX Coverage – Canada

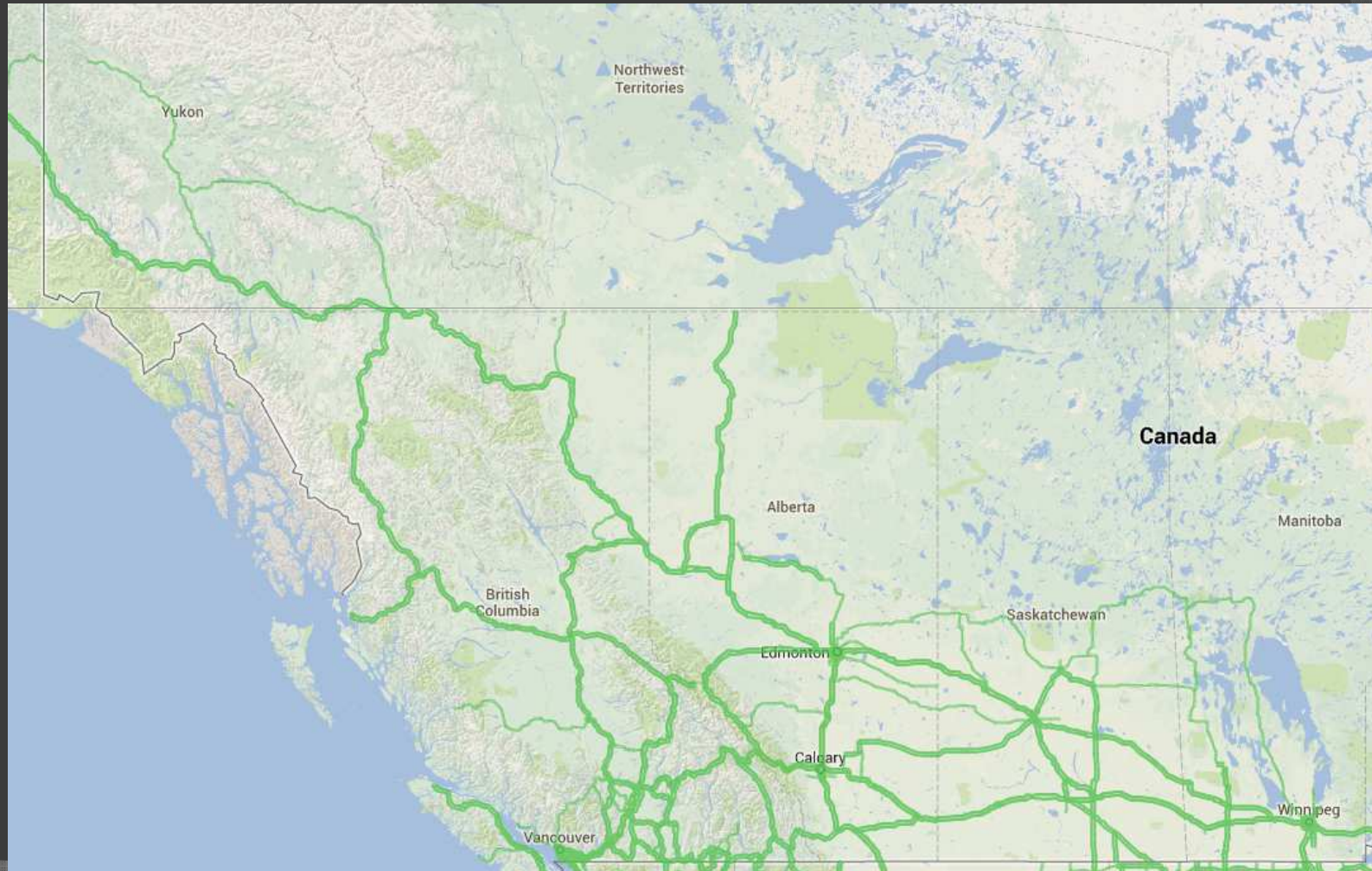
73,327 Centerline Kilometers



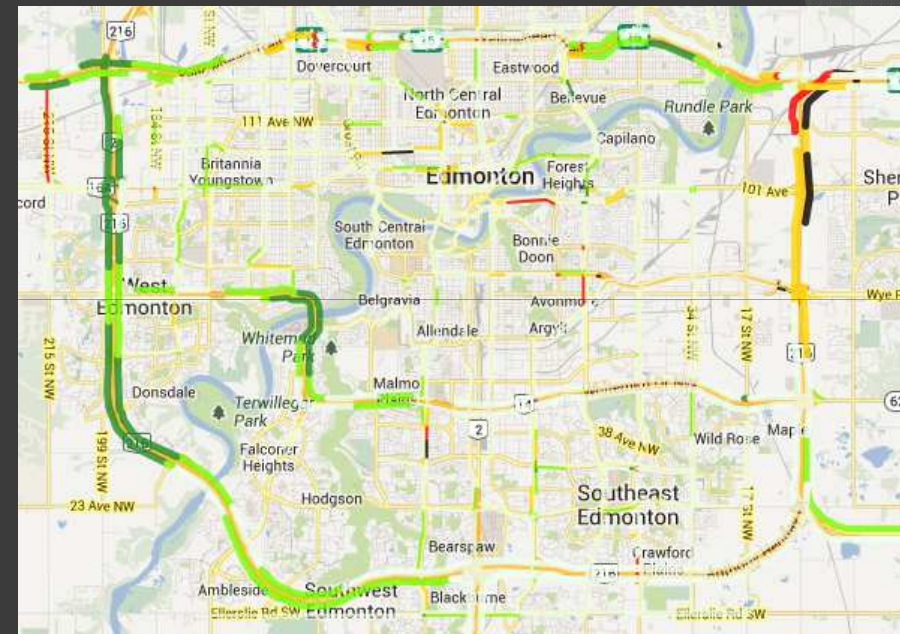
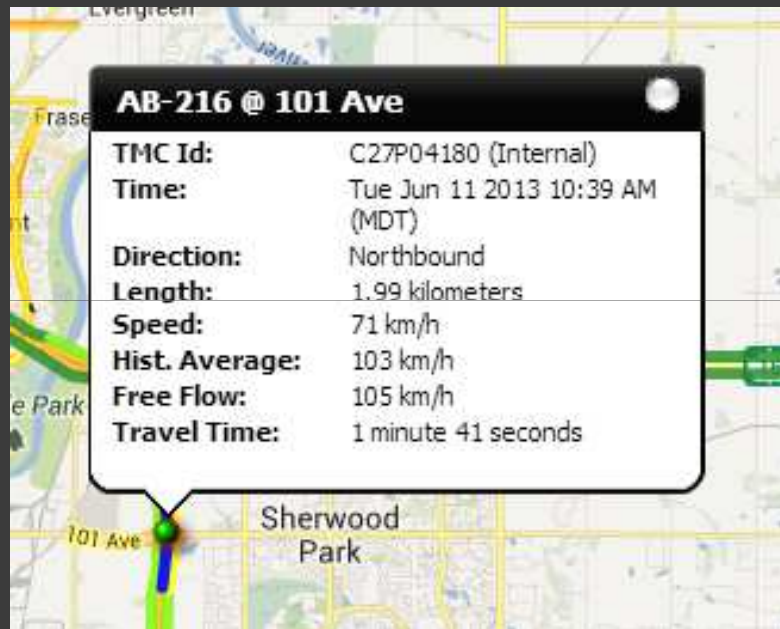
Subset of coverage available for public sector agency staff to view  
Create an account at [INRIXTraffic.US](https://INRIXTraffic.US)

# INRIX Coverage – Canada

73,327 Centerline Kilometers



# Traffic Speed Data



Comparative Speed



# Deployment Fees

- Freeways – \$640 per centerline kilometer per year
- Arterials – \$160 per centerline kilometer per year
- Travel times, historical data, Traffic Tile Overlays, congestion and weather alerts are less



# Situational Awareness – NJ

New Jersey Statewide TMC (NJDOT, NJ Turnpike)



<http://i95.inrix.com/I95>

# Flow Maps on Web Sites – NM

New Mexico Roads Legend

- Road Conditions:
- Cameras and Message Signs:
- Road Construction Information:
- Traffic Conditions:
  - Current Traffic
    - State Wide
    - Albuquerque
    - Santa Fe
    - Las Cruces
  - Congestion
  - Speed
- Current Weather Conditions:
- General Transit and Rest Area Information:

Speed (MPH)

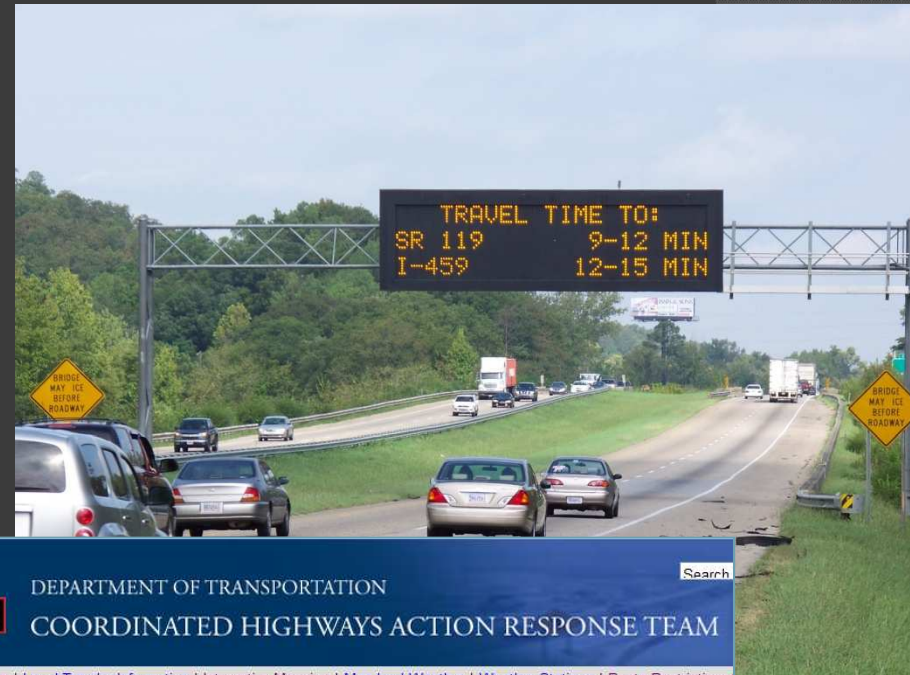
1120 Cerrillos Road, Santa Fe, NM, 87504-1149 | Telephone: (505) 827-5100 | Road Advisory Hotline: 511 or (800) 432-4269

NMROADS.com has been developed and is hosted and maintained by RealTimeSites, with contributing support from NMDOT Web and GIS staff.

<http://nmroads.com> - Select "Traffic Conditions"

# Travel Times on Signs

- South Carolina
- Maryland
- Virginia
- Birmingham, AL
- I-90, WA
- New Jersey
- More on way...



A screenshot of the Maryland Department of Transportation website. The header includes the Maryland state logo and the text "DEPARTMENT OF TRANSPORTATION COORDINATED HIGHWAYS ACTION RESPONSE TEAM". Below the header is a navigation menu with links for Home, Local Traveler Information, Interactive Mapping, Maryland Weather, Weather Stations, and Route Restrictions. The main content area features a map of the Baltimore area with various highways and landmarks. A pop-up window on the map displays a travel time sign: "DMS at I-95 North, prior Ex 38 Md 32 TRAVEL TIME TO I-695 11 MI AHEAD 10 - 13 MIN".

# Analytics: Ohio DOT

- Assessing Performance of Winter Operations
  - Time to return to normal travel after major winter storms
  - Reported as “Critical Success Factor” under Operations
- Assessing Urban Area Travel Time Reliability INDEX
  - Number of hours below posted speed between 5 AM and 9PM



# Indiana DOT/Purdue

## 2011 Indiana Interstate Mobility Report Summary Version



Stephen Remias, Thomas Brennan, Gannon Grimmer,  
Edward Cox, Deborah Horton, Darcy Bullock



- <http://docs.lib.purdue.edu/imr/>

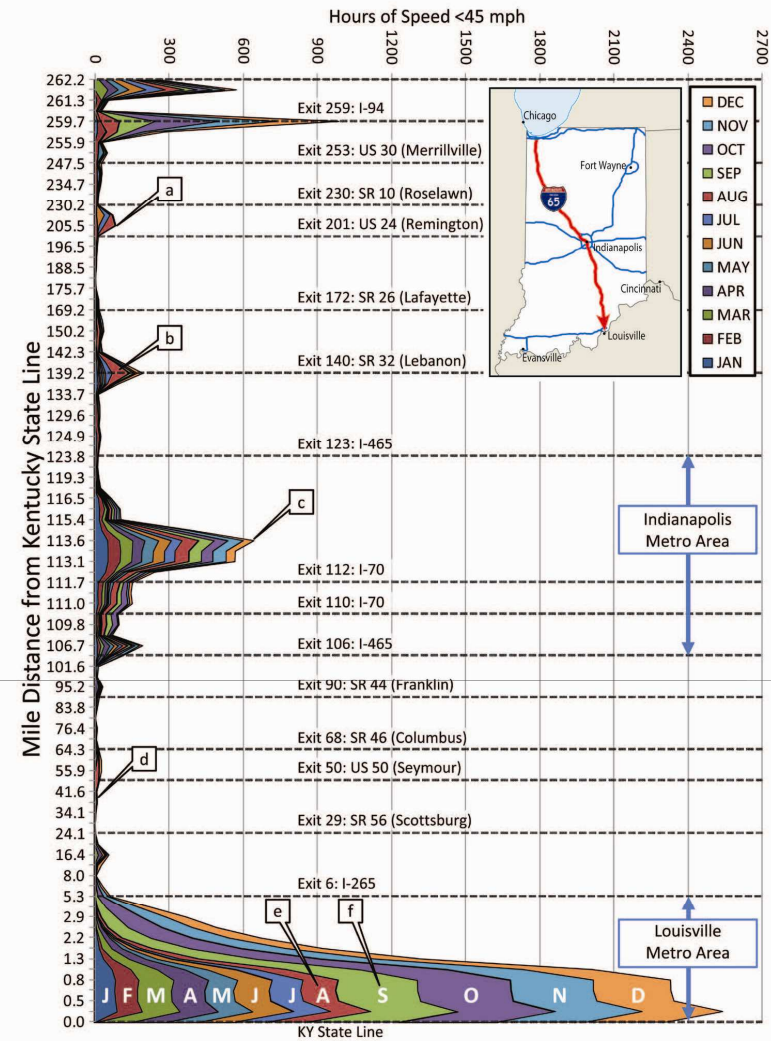


Figure 10. Location of I-65 southbound congestion hours color coded by month.

- Construction work zone associated with guardrail and under drain maintenance.
- Construction work zone associated with reconstruction near Lebanon.
- Congestion in downtown area of Indianapolis. Notice the relatively uniform magnitude of delay for each month. This is an example of recurring congestion on I-65 inside the I-465 loop.
- Rural segment with minimal congestion.
- Congestion associated with travel to Louisville during the months of June, July, and August was relatively uniform.
- On September 9, a section of I-64 was closed resulting in significant diversion of traffic from I-64 to I-65.

# INRIX Contact Information

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