



I-95 Corridor Coalition Information Systems Projects



The Integrated Corridor Analysis Tool (ICAT)

and

The Information Systems Network (ISN)

FDOT's ITS Working Group Meeting

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THE PORT AUTHORITY OF NY & NJ



Overview

For each project...

- System description and objectives
- Development status
- Next steps



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Integrated Corridor Analysis Tool (ICAT)

- Build a transportation network of the entire Coalition region as if State boundaries did not exist
- Use the network for various analyses, e.g.:
 - Impact of major capital investments that will affect multi-state travel
 - Evacuation planning across state boundaries
 - Economic benefits of regional investments



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If the Corridor Were California ...



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... It Would be Analyzed as a Single Entity



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ICAT Project Objectives

- Make the ICAT network a primary source for regional (multi-jurisdictional) transportation information
- Develop a GIS-based transportation network to support planning activities throughout the I-95 Corridor Coalition
- Develop a geographic linear referencing system (LRS) that links data to locations on a map
- Populate the network with data from national, state, and local sources



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ICAT Products

- An I-95 Corridor Coalition **GIS network** delivered in the form of a Geodatabase route system and a TransCAD format line layer
- Network populated with physical, operational, and demand **transportation data** from Federal HPMS and state/local transportation databases
- **Documentation** of network line-layer manipulations, the LRS referencing system, and methodologies for relating each state or local roadway database to the network
- **Dictionary** of field definitions



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ICAT Project Status

Tasks	Status
• Obtain and evaluate base line layer	Complete
• Correct network line layers as needed	Complete
• Develop linear referencing system	Complete
• Integrate National Highway Planning Network (NHPN) data	Complete
• Obtain state/local roadway inventory data (type, lanes, volumes, etc)	Complete
• Integrate data for 8 – 10 states	98% Complete



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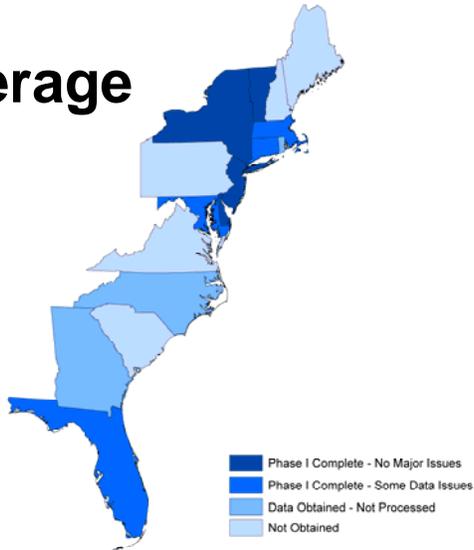
ICAT Current Coverage

Phase I (Year 12 Funding)

- 100% complete 4 States
- 95% complete 4 States

Phase II (Year 13 Funding)

- Data obtained/not processed 3 States
- Data not obtained/not processed 5 States



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ICAT Network: Traffic Volumes



Next Steps for ICAT

- Identify small set of individuals to begin testing system
- Obtain and relate data for remaining 8 states
- Support other Coalition projects/activities:
 - Bottleneck analysis
 - Performance measures
 - Safety data analysis
- Develop auto and truck trip tables for entire corridor
- Develop delivery system, including web access, user interface, on-line support, etc.
- Conduct multi-state analyses:
 - Evacuation planning
 - Economic benefits



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Information Systems Network (ISN)

- Enable travel information providers access to information that would affect long-distance travel decisions
- Link information through a wide area network of the major traffic management and travel information systems in Coalition member agencies



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Why Do We Need ISN?

- A multitude of information systems are deployed in the Corridor
- Each has information with particular jurisdictional boundary
- But travelers and operators within these boundaries are affected by occurrences in adjacent and distant areas
- And several jurisdictions may be affected by a large incident or emergency



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How Will ISN Be Used?

- Existing agency information systems can become ISN data providers, data users, or both
- ISN will initially support:
 - Major incident, emergency, or disaster notification to public sector operators
 - Long-distance traveler information applications



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What's Been Done?

- ISN Concept of Operations has been published
- ISN Architecture Alternatives and Recommendations being finalized



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Next Steps for ISN

- Assess existing information and systems employed in the corridor
- Address business and system operation policies
- Conduct an outreach campaign
- Develop the ISN System
- Initial deployment



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Policies and Outreach

- Policy and Procedures
 - Short and long-term funding needs and sources
 - Who provides operational support?
 - Who can provide and subscribe to data?
 - Data sharing agreements
 - Data quality and update requirements
- Outreach
 - Internally to Coalition Program Tracks
 - Potential users and / or data providers
 - Other potential beneficiaries



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System Development

- Identify information and data to be shared
- Identify candidate systems for initial deployment
- Identify message sets and standards to be used
- Define functional and performance requirements
- Assess ability of existing systems to meet requirements



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Initial Deployment

- Outreach to candidate sites and select locations for initial deployment
- Define archiving data flows (potential tie with ICAT)
- Prepare detailed design
- Build the system
- Deploy initial system and assess
- Develop expanded deployment options



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Final Thoughts

- Both projects are progressing well
- Increased investment will speed development pace starting next year (beginning of CY '07)
- **Coalition's Mission:** “. . . improve multimodal transportation services in the region through information sharing and coordinated management and operations.”
- **Information Management** is one of the three strategies that the Coalition applies to achieve its mission
- ICAT and ISN are information management tools that will enable the Coalition to be more effective and help its members better serve long-distance travelers



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Look For Us on the Web

www.i95coalition.org

- **Project status and documents**
- **Meeting minutes**
- **Events**
- **Much more**



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