



safety mobility productivity



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The mission of this quarterly newsletter is to inform ICM stakeholders about the USDOT ICM Initiative, including the latest knowledge and technology transfer resources available through this Initiative. Its mission is also to help raise general awareness about how the USDOT ICM Initiative is contributing to managing congestion. Please contact April Armstrong at armstronga@saic.com with any comments or suggestions for future newsletter topics.

USDOT Selects Sites to Develop Concepts for Integrated Corridor Management

The USDOT has selected eight "Pioneer Sites" to act as critical partners in the development, deployment and evaluation of Integrated Corridor Management (ICM) strategies designed to help manage congestion in some of our nation's busiest urban corridors as part of its 5-year ICM Initiative (Please see "Spotlight on USDOT's ICM Initiative," page 6). The ICM Pioneer Sites are:

- Dallas, Texas
- Houston, Texas
- Minneapolis, Minnesota
- Montgomery County, Maryland
- Oakland, California
- San Antonio, Texas
- San Diego, California
- Seattle, Washington

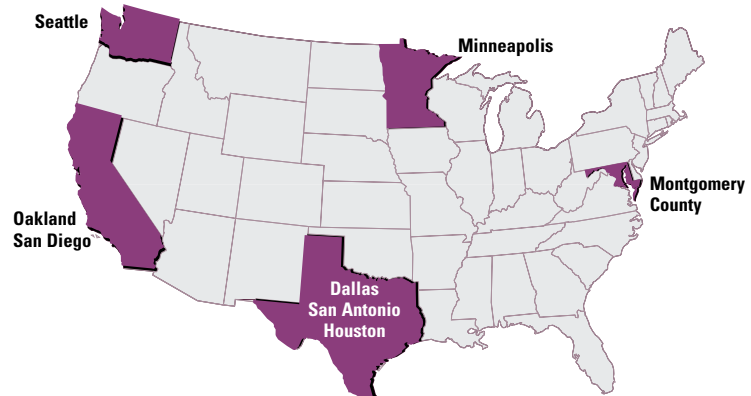
All eight Pioneer Sites are recognized leaders in the area of congestion management, and their efforts under this initiative will directly contribute to more efficient, faster moving, and safer corridors for the future. The corridors of

each Pioneer Site include configurations and characteristics that the USDOT believes represent many other corridors across the nation and all possess infrastructure assets that can enable ICM. For example, all have implemented real-time signal control on their arterials. Many have implemented high-occupancy vehicle (HOV) and value-pricing strategies, while others have advanced bus operations that include express bus and bus rapid transit services. The table on page 12 provides a snapshot of the eight USDOT ICM Pioneer Sites and the existing infrastructure assets they will seek to integrate through ICM.

The Pioneer Sites will develop multi-modal ICM strategies that apply new institutional and operational approaches and advanced technologies to existing infrastructure to help to increase travel time reliability, manage congestion and empower travelers. The USDOT's partnership with the Pioneer Sites will occur in three stages:

continued on p. 12

ICM Pioneer Sites



USDOT Releases Beta Version of ICM Knowledgebase: Knowledge Is Power

The USDOT is releasing a beta version of the ICM Knowledgebase at the ITSA Annual Meeting in Palm Springs, CA, June 4-6, 2007. The ICM Knowledgebase is a highly useable, searchable, browseable, Web-based reference tool designed to provide transportation professionals the knowledge and tools they need to successfully implement ICM in their corridors. The ICM Knowledgebase contains leading-edge knowledge developed through the USDOT's ICM Initiative such as the Generic ICM Concept of Operations (CONOPS).

Designed with input from ICM stakeholders, the ICM Knowledgebase is designed to help users conveniently access the information they need. Users may search the Knowledgebase by keyword or browse its contents by a number of views, including type of resource (guidance, lessons learned, presentation, etc.), associated systems engineering or ICM life-cycle step, publication date of document, or conference/event. The Knowledgebase also provides users with at-a-glance document abstracts; usage guidance, including for target audiences; and other information, including file size and number of pages, to help users to determine which documents may be most useful to them. Documents are being added quarterly to the Knowledgebase as the ICM Initiative moves along.

Leading-edge Knowledge in ICM:

The ICM Knowledgebase is the source for leading-edge research and resources being developed out of the USDOT's ICM Initiative, such as the ICM CONOPS and the ICM Implementation Guidance. The eight Pioneer Sites are developing innovative ICM strategies and documenting their approaches every step of the way so that others can learn from their experiences.

Search or browse the ICM Knowledgebase contents by:

- **Keyword**
- **Resource type**
- **Conference/event**
- **ICM life-cycle step**
- **Recency of document**

The USDOT is conducting research on their efforts, including modeling and simulation, as well as ultimately evaluation of demonstrations of some of the most promising strategies. Transportation professionals can find everything they need to help them implement ICM in the ICM Knowledgebase—sample documents, tools, methodologies and outreach materials.

Intuitively Find the Information You Need:

Time is valuable. The ICM Knowledgebase is designed to help transportation professionals interested in implementing ICM find the information they are looking for in one of two ways: They can search by keyword or browse contents by a variety of "views" based on their informational needs. Its multiple search options are designed to help transportation professionals conveniently find the information they need at any point in time.

The ICM Knowledgebase also provides users with an informational snapshot of the documents to help them decide whether it is worth their time to open or download the document, including a document summary, what kinds of professionals may find the document useful, how to use the document, document size and publication information.

Always There and Getting Better Every Day:

The ICM Knowledgebase is always there and getting better every day as new materials are added. See below about Knowledgebase materials available today.

Save Time and Space. Bookmark the ICM Knowledgebase at www.its.dot.gov/icms/compendium.htm for convenient access to this useful reference tool. Rather than sending colleagues documents, simply send them the link to the ICM Knowledgebase.

ICM Knowledgebase Resources Include:

- **Generic ICM Concept of Operations.** Describes a CONOPS for a generic 15-mile corridor with freeway, arterial, bus and rail networks serving a central business district. Intended for agency and network owners developing their own real-world CONOPS.
- **ICM Implementation Guide.** Discusses the processes needed to implement and operate an ICM system. Intended as a guide for transportation professionals involved in any stage of the ICM life cycle.
- **Develop Alternative Definitions for Corridor and Integrated Corridor Management.** Discusses key attributes of ICM Initiative definitions and presents final versions of these definitions, incorporating comments by USDOT and ICM stakeholders.
- **Develop Criteria for Delineating a Corridor.** Discusses guidelines and concepts that agencies and network owners should consider when determining corridor boundaries and ways they can use criteria to identify corridor boundaries.
- **Relationship Between Corridor Management and Regional Management.** Compares and contrasts ICM and regional management, identifying their similarities, differences and relationships.
- **Tailorable ICM Outreach Resources.** ICM related fact sheets, newsletters, and technical and executive level presentations developed under the USDOT's ICM Initiative are available to corridor operators and managers to help them raise awareness about ICM and generate support for their efforts among partners and stakeholders in their local areas.

Visit the ICM Knowledgebase at www.its.dot.gov/icms/compendium.htm or pick up a copy of the ICM Knowledgebase Fact Sheet to learn more and to see all of the materials available today! >>>

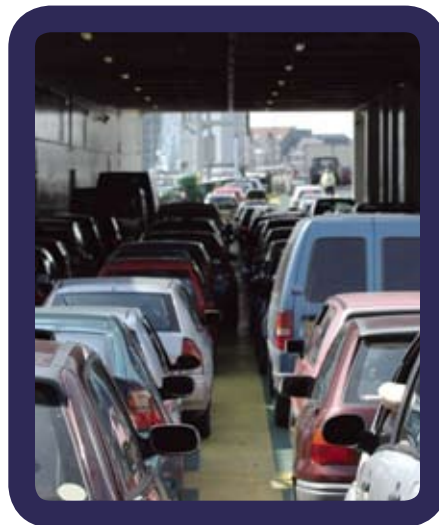
USDOT's ICM Initiative: Helping to Improve Travel Time Reliability, Manage Congestion and Empower Travelers

In May 2006, the Secretary of the United States Department of Transportation (USDOT) announced a national initiative to reduce highway, freight and aviation congestion, calling congestion one of the greatest threats to the nation's economy.¹ The Secretary noted that businesses lose an estimated \$200 billion per year due to freight bottlenecks; and drivers waste nearly 4 billion hours of time, and more than 2 billion gallons of fuel, in traffic jams each year. In March 2007, Secretary Mary Peters reiterated the Department's commitment to the National Strategy to Reduce Congestion.

The greatest concentration of congestion is often along critical transportation corridors that link residential areas with business centers, sports arenas and shopping areas. New road construction alone will not solve the growing problem of congestion—travel demand on our nation's roadways is outpacing new freeway capacity by a factor of five.² The Texas Transportation Institute calculates that Americans spend an average of 47 additional hours per year—beyond their normal commutes—in gridlock. Integrated Corridor Management (ICM) is a promising tool in the congestion management toolbox that seeks to optimize the use of existing infrastructure assets and leverage unused capacity along our nation's urban corridors. With ICM, the various

institutional partner agencies manage the transportation corridor as a system—rather than the more traditional approach of managing individual assets.

The vision of the USDOT ICM Initiative is to help metropolitan areas realize significant improvements in the efficient movement of people and goods through aggressive and proactive integration and



management of major transportation corridors. USDOT believes that ICM will result in a reduction in travel times, delays, fuel consumption, emissions and incidents and an increase in reliability and predictability of travel—enough so that it has funded a 5-year initiative to help advance the state of the practice in this promising area. To do this, USDOT will be freely sharing the knowledge gained through this initiative with transportation practitioners around the country through its knowledge and technol-

ogy transfer effort (Please see related story, "USDOT Releases Beta Version of the ICM Knowledgebase.")

The ICM Initiative will demonstrate that Intelligent Transportation Systems (ITS) technologies can be used to efficiently and proactively manage the movement of people and goods in major transportation corridors by facilitating integration of the management of all networks in a corridor. The results of the initiative will help to facilitate widespread use of ICM tools and strategies to improve mobility through integrated management of transportation assets.

The USDOT ICM Initiative has the following objectives:

1. Demonstrate how operations strategies and ITS technologies can be used to efficiently and proactively manage the movement of people and goods in major transportation corridors through integration of the management of all transportation networks in a corridor.
2. Develop a toolbox of operational policies, cross-network operational strategies, integration requirements and methods, and analysis methodologies needed to implement effective ICM systems.
3. Demonstrate how proven and emerging ITS technologies can be used to coordinate the operations between separate corridor networks to increase the effective use of the total transportation capacity of the corridor. >>>

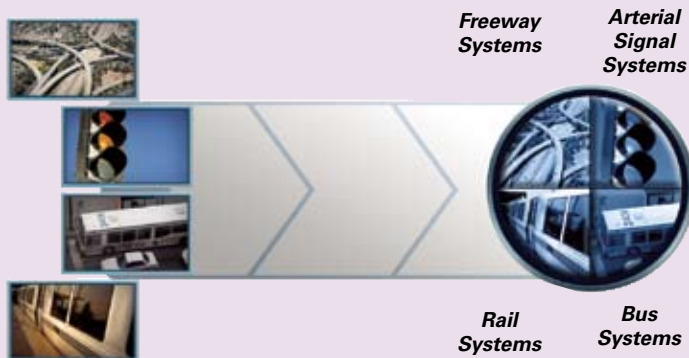
¹ <http://www.fightgridlocknow.gov/docs/conginitoverview070301.htm>. Accessed April 2007

² *Ibid.*

"Traffic planners are increasingly focusing on how to make more efficient use of existing roadways." —Wall Street Journal Report, 2006

What Is Integrated Corridor Management (ICM)?

Transportation corridors often contain unused capacity in the form of parallel routes, the non-peak direction on freeways and arterials, single-occupant vehicles and transit services that could be leveraged to help reduce congestion. Traffic information today is often fragmented, outdated or not completely useful. Networks are often independently operated and efforts to date to “reduce congestion” have focused on optimization of individual networks.

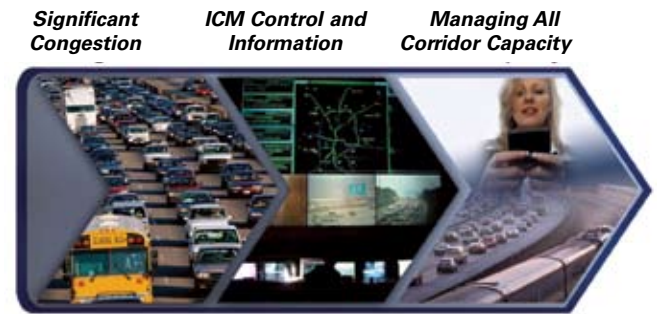


Corridor Networks Today

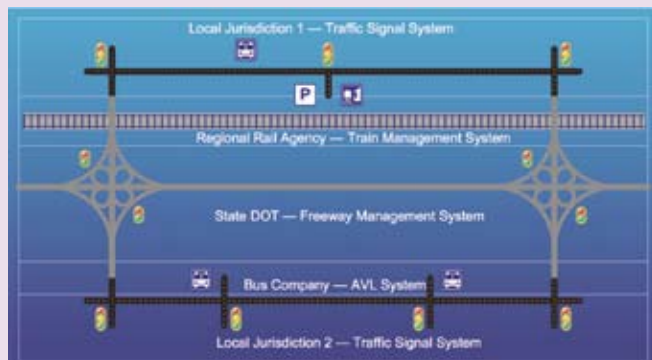
The combined application of technologies and a commitment of network partners to work together have the potential to transform the way corridors are operated and managed. Thanks to recent advancements in intelligent transportation systems technologies, there is a tremendous opportunity today to integrate operations to manage total corridor capacity. With ICM, partner agencies manage the corridor as an integrated asset in order to improve travel time reliability and predictability, help manage congestion and empower travelers through better information and more choices.

With ICM

In an ICM corridor, because of proactive multimodal management of infrastructure assets by institutional partners, travelers could receive information that encompasses the entire transportation network. They could dynamically shift to alternative transportation options—even during a trip—in response to changing traffic conditions. For example, while driving in a future ICM corridor, a traveler could be informed in advance of congestion ahead on that route and be informed of alternative transportation options such as a nearby transit facility’s location, timing and parking availability.



Example ICM Corridor



Congestion solutions “will require a smarter approach to capacity expansion and improved productivity of existing transportation assets.”

—USDOT Secretary, Mary Peters, March 2007¹

¹ <http://www.fightgridlocknow.gov/docs/conginitoverview070301.htm>. Accessed January 2007



Meet the USDOT ICM Team!

The ICM Initiative is truly an integrated initiative. This philosophy is reflected in the joint management of the initiative shared by senior representatives from the Research and Innovative Technology Administration's (RITA) Intelligent Transportation Systems (ITS) Joint Program Office (JPO), Federal Highway Administration (FHWA) and Federal Transit Administration (FTA). In addition to proactively involving stakeholders in the development of everything from the initial concept of the initiative to the strategic plan for ICM outreach and knowledge and technology transfer, the ICM Initiative is jointly directed by a "Core Team" of USDOT leaders:

Mr. Michael Baltes serves as the FTA ICM Program Manager. Mike is the technical representative for the Dallas, TX, and Oakland, CA, Pioneer Sites. He brings more than 16 years of progressive work experience in multimodal transportation research, planning and project management and development. Mike specializes in multimodal transit research, planning and implementation of public transportation services. He is considered an industry expert in ITS and bus-based public transit, including Bus Rapid Transit (BRT). He is widely published in both academic and non-academic transportation-related journals and periodicals and other publications. He is a member of two Transportation Research Board (TRB) committees and serves on APTA's BRT Task Force. You can reach Mike at michael.baltes@dot.gov.

Mr. Brian Cronin, P.E., serves as the RITA/JPO ICM Program Manager and has been working in the area of transportation and intelligent transportation systems for 13 years. He is the Congestion Program Coordinator for the ITS JPO and serves as technical representative for the Montgomery County, MD, and San Antonio, TX, Pioneer Sites. Brian first worked in a consulting company where he planned and designed traffic management control systems for the public sector. Brian worked at the FTA for 7 years prior to joining the ITS JPO in 2005. While at the FTA, Brian managed projects on traveler information systems, vehicle safety systems, standards and system management. Brian is also the JPO's lead representative to the Department's Congestion Initiative. You can reach Brian at brian.cronin@dot.gov.

Mr. Gummada Murthy, P.E., is FHWA's ICM Program Manager and is responsible for overseeing overall technical implementation efforts for ICM, including the application of the systems engineering process to the ICM life cycle; as well as the ICM Knowledge and Technology Transfer effort. Gummada also serves as the technical representative for the Houston, TX, and San Diego, CA, Pioneer Sites. He recently joined the USDOT and brings more than 20 years of experience with state transportation and operations programs to the ICM team. Prior to joining USDOT, Gummada worked with the Virginia Department of Transportation (VDOT) and previously with Washington DOT and Florida DOT. He is actively involved in all phases of transportation planning and engineering with concentration in operations of roadway and roadside infrastructure, including ITS, signal systems programs, ITS deployment and operations and roadway maintenance programs. Other areas of involvement include incident management and security applications management to operations programs. You can reach Gummada at gummada.murthy@dot.gov.

Mr. Dale Thompson is a Transportation Research Specialist in the FHWA's Office of Operations. As FHWA's Research and Development ICM Research Coordinator, Dale is responsible for leading and coordinating the research activities in the Phase 1 ICM Analysis, Simulation and Modeling and Phase 3 Technical Integration efforts. He is also the technical representative for the Minneapolis, MN, and Seattle, WA, Pioneer Sites. In addition to supporting the FHWA Operations and ITS programs for the past 10 years, his experience includes serving as the AZTECH and ITS Program Manager for Maricopa County in Phoenix, AZ, and serving as a Systems Integration and Interoperability Officer in the United States Air Force. You can reach Dale at dale.thompson@dot.gov. >>>



Spotlight on the Four Phases of the USDOT's ICM Initiative

The USDOT's ICM Initiative will occur in four phases. These phases are designed to promote innovation in the development of new approaches for efficiently managing existing assets within a corridor. Ultimately, these four phases will help the USDOT and the Pioneer Sites to identify and advance promising ICM approaches that can serve as critical next steps in the nation's efforts to reduce traffic congestion. Note that Phases 2–4 occur concurrently to some extent.

Phase 1: Foundational Research

Phase 1 was completed in early 2006. It included research into the current state of corridor management in the United States as well as leading examples of ICM-like practices around the world, initial feasibility research, and the development of initial technical guidance such as a Generic Concept of Operations (CONOPS) for ICM to serve as a resource for sites seeking to develop their own concepts. As part of Phase 1, USDOT, working with ITS America (ITSA), formed a multimodal stakeholder group consisting of representatives from the public and private sectors. As a result of the Phase 1 research, the USDOT decided to move forward with the ICM Initiative.

The Generic CONOPS was developed with input and feedback from this multimodal stakeholder group and resulted in a shared framework through which the ICM Initiative can identify, test, revise and deploy appropriate technologies and techniques within the context of a CONOPS. The USDOT documented the Phase 1 foundational research in a set of technical memoranda, all of which are available in the ICM Knowledgebase (Please see related article, "USDOT Releases Beta Version of the ICM Knowledgebase," page 2). Pick up a copy of the ICM Knowledgebase Fact Sheet or visit the ICM Web site at www.its.dot.gov/icms/compendium.htm for a complete listing and descriptions of the Phase 1 foundational research.

Phase 2: Corridor Tools, Strategies and Integration

Phase 2 of the ICM Initiative began in September 2006 and will run concurrent with Phases 3 and 4. This phase will develop analytic tools and methods that enable the implementation and evaluation of ICM strategies and include lab and limited field testing at select Pioneer Sites, evaluation of interfaces, and component operations of ICM. The goal of Phase 2 is to develop the tools and components necessary to support ICM operations and to apply these tools in one or more site demonstrations. Phase 2 efforts will also evaluate the expected benefits to be derived from implementing ICM systems.

The outcomes of this phase will help decision-makers identify gaps, evaluate ICM strategies, and invest in the best combination of strategies that would minimize

congestion and improve safety and help to estimate the benefit resulting from ICM across different transportation modes and traffic control systems. Knowledge about the analysis methodologies, tools and possible benefits of ICM strategies will be made available to the Pioneer Sites and to the entire transportation community.

The overall effort of Phase 2 will result in validated and tested methodologies to support ICM analysis.

Phase 3: Corridor Site Development, Analysis and Demonstration

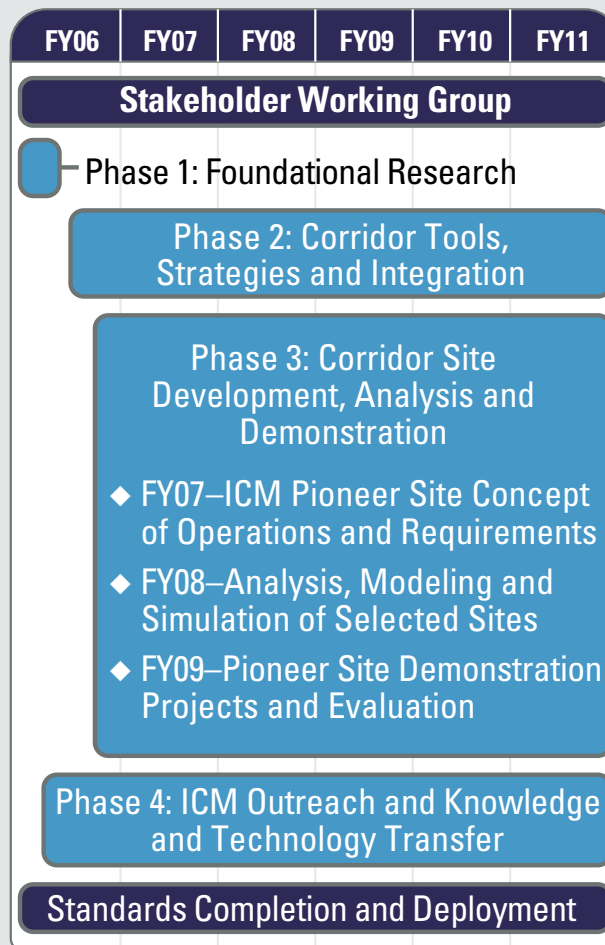
In Phase 3, USDOT will model up to four ICM approaches developed by the Pioneer Sites and fund demonstration and evaluation of up to four approaches that appear to offer the greatest potential. Phase 3 consists of three stages:

Stage 1: Concept Development (FY07)

All eight sites will develop site-specific CONOPS and requirements documents. Each site will also provide sample data for evaluation. The Pioneer Sites began working on Stage 1 in October 2006. They expect to have their CONOPS finalized by the summer of 2007 and requirements documentation finalized by fall of 2007. These efforts are guided by the Generic ICM CONOPS and requirements documents developed in Phase 1. USDOT will assess their capability to demonstrate ICM based on these documents.

Stage 2: Modeling (FY08–FY09).

Using USDOT-provided resources, methodologies and tools and working closely with USDOT, up to four sites will analyze and model their proposed ICM systems. USDOT expects



to announce the selection of the sites that will participate in Stage 2 Modeling in FY08, after completion of Stage 1.

Stage 3: Demonstration and Evaluation (FY09–FY11)

USDOT will select up to four sites to demonstrate ICM concepts that may have applicability to a broad range of corridors around the country. These sites will demonstrate the application of institutional, operational and technical integration approaches in the field and document implementation issues and operational benefits. USDOT expects to announce the selection of the sites that will participate in Stage 3 Demonstration and Evaluation in FY09, after completion of Stage 2.

Phase 4: ICM Outreach and Knowledge and Technology Transfer

The Phase 4 Knowledge and Technology Transfer (KTT) efforts will transfer the knowledge and technology gained throughout the ICM Initiative to transportation practitioners through a comprehensive set of resources. ICM KTT will focus on promoting widespread implementation of ICM tools and strategies as a means to improve mobility and safety through integrated management of transportation assets. More than 20 ICM stakeholders, including representatives from each Pioneer Site, contributed to the development of the ICM KTT strategy using virtual collaborative technology.

KTT resources will include the ICM Knowledgebase (the beta version is available now), which will serve as a one-stop, fully searchable source for the knowledge developed through the ICM Initiative (please see related article, "USDOT Releases a Beta Version of the ICM Knowledgebase," page 2); peer-to-peer training resources such as Web-based seminars and mobile workshops; conferences; and printed materials such as fact sheets and guidance documents. The KTT mission is to equip practitioners in corridors around the country to implement ICM.

As part of Phase 4, USDOT will host two outreach events to raise awareness about ICM and the leadership of the Pioneer Sites and to develop and disseminate outreach

materials, including this quarterly ICM newsletter, brochures, articles, press kits and visual presentations that can be customized by regions around the country to raise awareness about ICM in their areas. The ITSA Annual Meeting will serve as the venue for the first ICM outreach event, taking place the evening of Monday, June 4, 2007. At this event, Ms. Shelley Row, Director of the Intelligent Transportation Systems (ITS) Joint Program Office for USDOT, will introduce the ICM Initiative and recognize the eight Pioneer Sites whose leadership is helping to blaze new trails in congestion management. Attendees will have the opportunity to network with the Pioneer Sites and ask questions directly to the people leading development of ICM strategies. Ms. Row will also highlight the ICM-related activities taking place at this annual meeting, including an ICM Showcase at which Pioneer Sites will present their ICM concepts in a poster session.

Visit the ICM Web site at <http://www.its.dot.gov/itsweb/icms/index.htm> to check out the latest KTT resources and outreach materials available today! >>>

The KTT mission is to equip practitioners in corridors around the country to implement ICM.



FHWA Updates Focus on Congestion Relief Web Site

FHWA's related "Focus on Congestion Relief" Web site (<http://www.fhwa.dot.gov/congestion/index.htm>) has been updated to provide more information to the transportation community and the general public on activities and initiatives within FHWA to reduce congestion. A special focus has been placed on activities related to the USDOT's Congestion Initiative and Federal Highway's related Action Agenda. The Congestion Reduction Toolbox provides links to a variety of FHWA programs and contacts for reducing congestion. A new page, "Describing the Congestion Problem," gives some background information. The "Information by State" section of the Web site provides updated links to relevant congestion relief efforts across the United States.

This Web site provides links to relevant presentations such as that given recently by Ms. Regina McElroy, Director, Office of Transportation Management at the ITE 2007 Technical Conference in San Diego, CA, on Operations and Management Aspects of the USDOT Congestion Initiative (presentation available at: <http://www.ops.fhwa.dot.gov/speeches/ite07techconf/index.htm>).

For more information on the Web site or to suggest content, please contact Rich Taylor, FHWA Office of Operations (rich.taylor@dot.gov)
>>>



A Brief History of ICM

3500 BC	Fixed wheels on carts are invented—the first wheeled vehicles in history. Other early wheeled vehicles include the chariot. ¹
1662	Blaise Pascal invents the first public bus —horse-drawn, regular route, schedule and fare system.
1769	First self-propelled road vehicle invented by Nicolas Joseph Cugnot.
1801	Richard Trevithick invented the first steam-powered locomotive (designed for roads).
1871	First cable car invented by Andrew Hallidie.
1885	Karl Benz builds the world's first practical automobile to be powered by an internal combustion engine.
1908	Henry Ford improves the assembly line for automobile manufacturing.
1925	The U.S. highway system —a national standard for roads and highways—established by the Federal Aid Highway Act.
1956	Dwight D. Eisenhower signs the Federal-Aid Highway Act of 1956, creating the interstate system . The original name was the “National System of Interstate and Defense Highways.” ²
2005	USDOT launches its Integrated Corridor Management (ICM) Initiative to improve travel time reliability, manage congestion and empower travelers by optimizing existing network assets.
2006	<ul style="list-style-type: none"> • USDOT selects eight Pioneer Sites to develop ICM concepts and strategies. • 50th Anniversary of National Highway System. Anne Canby, President of the Surface Transportation Policy Project, says in USA Today, “We see [this] as a chance to diversify the options people have for getting from place to place and returning some of the options that were lost as we focused almost solely on building the interstates.”³ • Secretary of DOT calls congestion “one of the single largest threats to the economy” and launches <i>National Strategy to Reduce Congestion on America’s Transportation Network</i>.
2007	ICM Pioneer sites present concepts for managing congestion at the ITS America Annual Meeting.

¹ http://inventors.about.com/library/inventors/bl_history_of_transportation.htm.

² http://www.westernresearch.org/TTE-Transfer/August06/index_files/Page298.htm.

³ http://www.usatoday.com/news/nation/2006-06-28-interstate-system_x.htm.



USDOT Launches Site: www.FightGridlockNow.gov

In January 2007, USDOT Secretary Mary Peters affirmed the Department’s commitment to reducing congestion in our nation’s transportation system. The Department recently launched its “**FightGridlockNow**” Web site, which summarizes and provides links to more information on the components of the National Strategy to Reduce Congestion that are currently underway.

Events of Interest

This section highlights recent and upcoming events that may be of interest to the ICM and congestion management community.

Recent Events

March 25–March 28, 2007: ITE 2007 Technical Conference and Exhibit, “Managing Congestion—Can We Do Better?”

The USDOT ICM Team shared preliminary results of the research into key ICM technical integration issues in the areas of surveillance and detection, device-to-device communication and control and decision support systems with ICM stakeholders. Visit <http://www.ite.org/Conference/spsessions.asp> for more information on the session. This presentation will be made available in the ICM Knowledgebase, which can be accessed at www.its.dot.gov/icms/compendium.htm.

Ms. Regina McElroy, Director, Office of Transportation Management, presented on operations and management aspects of the USDOT Congestion Initiative at this conference. This presentation is available on the FHWA's Focus on Congestion Relief Web site at <http://www.ops.fhwa.dot.gov/speeches/ite07techconf/index.htm>.

Upcoming events (in the order in which they are scheduled to occur)

USDOT's “Talking Operations” Webinars

Stay tuned for two upcoming Talking Operations Web seminars on the USDOT's Congestion Initiative (scheduled for June 13, 2007) and Tolling and Pricing Activities (scheduled for July 11, 2007). More information and registration for these seminars and other Talking Operations seminars will be available on http://www.ntoctalks.com/web_casts.php. Talking Operations seminars are held via Webcast technology and are free of charge to all interested parties.

National Association of Regional Councils (NARC) Annual Conference & Exhibition, “Regional Excellence: The Future of Regions”

June 23–26, 2007, Orlando FL. More information on this event can be found at <http://narc.org/events/conferences/what-is-the-annual-conference-and-exhibition/2007-annual-conference.html>.

National Association of Counties (NACo) 2007 Annual Conference & Exposition

July 13–17, 2007, Richmond, VA. More information on this event can be found at <http://www.naco.org/Template.cfm?Section=Annual&Template=/TaggedPage/TaggedPageDisplay.cfm&TPLID=80&ContentID=19071>.

Institute of Transportation Engineers (ITE) Annual Meeting & Exhibit

August 5–8, 2007, Pittsburgh, PA. More information on this event can be found at <http://www.ite.org/annualmeeting/>.

National Conference of State Legislatures Annual Meeting

August 5–9, 2007, Boston, MA. More information on this event can be found at <http://www.ncsl.org/annualmeeting/>.

2007 Association of Metropolitan Planning Organizations (AMPO) Annual Conference

October 1–5, 2007, Little Rock, AR. More information on this event can be found at <http://www.ampo.org/content/index.php?pid=107>.

American Public Transportation Association (APTA) Annual Meeting

October 7–10, 2007, Charlotte, NC. More information on this event can be found at http://www.apta.com/conferences_calendar/annual/index.cfm. >>>

Recent Headlines

This section highlights national news stories related to congestion management.

Riders Crowd Public Transit Systems

Increased road congestion and improved transit service cited as key factors contributing to record rise in transit ridership. Read the full article at http://www.usatoday.com/money/autos/2007-03-12-transit-4-usat_N.htm.

What's the Toll? It Depends on the Time of Day

Is the United States entering a “golden age of congestion pricing?” Read the full article at <http://www.nytimes.com/2007/02/11/business/yourmoney/11view.html?ex=1328850000&en=319162a6b83a02de&ei=5088&partner=rssnyt&emc=rss>.

New System Uses Radar to Report Traffic Flow

Traveler information companies are vying to provide better, more accurate information and give travelers more control over their travel decisions. Read the full article at <http://www.msnbc.msn.com/id/17963332/>.

America's Next Hot Neighborhoods

“Transportation Infrastructure” cited as the top factor for best real estate investments. Read the full article at http://realestate.msn.com/buying/Article_bus-week.aspx?cp-documentid=4427326.

Google Transit Offers Glimpse into the Potential for Truly Integrated Traveler Information

The world's best search engine is poised to become commuters' best friend with the launch of its Google Transit service. The service is being launched in only a few locations at first but offers a glimpse into the potential for truly integrated traveler information. Check out www.google.com/transit for more information. >>>



“Many cities have invested significant resources in an ITS infrastructure for highways, arterials, and transit systems. It is time to leverage this investment and operate the system in a coordinated manner that encompasses technical, operational and institutional coordination!” —Shelley Row, Director of USDOT's ITS Joint

Each quarter, the newsletter will feature several frequently asked questions about ICM. Please visit the USDOT ICM Web site at <http://www.its.dot.gov/itsweb/icms/index.htm> to view the complete list of FAQs.

What is ICM?

Integrated Corridor Management (ICM) is a promising tool in the congestion management toolbox that seeks to optimize the use of existing infrastructure assets and leverage unused capacity along our nation's urban corridors. Institutional partners responsible for corridor mobility create an interconnected system that can support cross-network travel management by coordinating the individual network operations between parallel facilities (freeways, arterial roadways, bus and train routes that run parallel).¹ In short, in an ICM corridor, transportation agencies manage the corridor as a system—rather than the more traditional approach of managing individual assets.

Transportation corridors often contain significant unused capacity in the form of parallel routes, the non-peak direction on freeways and arterials, single-occupant vehicles, and transit services that could be leveraged to help reduce congestion. Traffic information today is often currently fragmented, outdated or not completely useful.

In an ICM corridor, because of proactive multimodal management of infrastructure assets, travelers could receive information that encompasses the entire transportation network. These travelers could then dynamically shift to alternative transportation options—even during a trip—in response to changing traffic conditions. For example, while driving in a future ICM corridor, a traveler could be informed in advance of congestion ahead on that route and be informed of alternative transportation options such

as a nearby transit facility's location, timing and parking availability.

What is an ICMS?

The "ICM Concept of Operations for a Generic Corridor" defines an ICMS as a "system of systems," involving multiple



agencies and stakeholders.² ICM may result in the deployment of an actual transportation management system, which may be referred to as an integrated corridor management system or "ICMS." Such a system would connect the individual network-based transportation management systems (complete with ICMS central hardware and servers, database, decision support software, joint sharing of command and control activities). ICM may just consist of a set of procedures agreed

to by network owners with appropriate linkages between their respective systems. Network owners are strongly encouraged to follow the ICM life-cycle process described in the Generic CONOPS, which is based on the systems engineering management process, in the development and implementation of an ICMS.

What makes ICM different from traditional transportation management approaches?

ICM is different from traditional transportation management approaches in its emphasis both on coordinated, multimodal cross-network operations within a corridor and on the efficient use of existing network assets to manage congestion and empower travelers through better information and more choice.

ICM builds upon regional information sharing and management approaches to provide integrated operations along various corridors within a region. ICM takes the next step from integrated management at a regional level to integrated operations at a corridor level. One or more corridors will likely be found in a region—in other words, a corridor is a subset of a region. ICM is distinct from regional approaches in that, whereas regional management focuses primarily on information sharing and coordination and collaboration between agencies, ICM goes beyond this to include cross-operations of the various networks within the region.

These integrated operations within a corridor apply to a variety of scenarios and challenges, including incident manage-

² Please see the *Generic CONOPS* and the *ICM Implementation Guidance* documents for more information on an ICMS. Both documents are available in the ICM Knowledgebase, which can be accessed at <http://www.its.dot.gov/itsweb/icms/index.htm>.

¹ Please see the *ICM Systems Program Plan* for more details at <http://www.fhwa.dot.gov/crt/roadmaps/icmprgmpplan.cfm>.

... while driving in a future ICM corridor, a traveler could be informed in advance of congestion ahead on that route and be informed of alternative transportation options...

ment, special event management, emergency management, managed lanes and recurring congestion. While regional management encompasses many similar activities, it is important to consider just what these various operation activities entail and how they get accomplished from both a corridor and broader regional perspective. For example, while traveler information has a regional focus in terms of where the information is obtained and how it is distributed, to facilitate individual traveler trip needs, corridor traveler information must provide travelers with a means to compare their individual travel alternatives through a corridor and assist them to make their daily travel choices. This means that the corridor travel conditions must be presented in a way that is network and mode-neutral so that each alternative can be easily compared.

Please see the "Relationship Between Corridor Management and Regional Management" technical memorandum in the ICM Knowledgebase available at <http://www.its.dot.gov/itsweb/icms/index.htm> for more information.

How does ICM relate to the USDOT's Congestion Initiative?

The USDOT's Focus on Congestion Relief Web site describes the USDOT's Congestion Initiative:

"In May 2006, then Secretary Norman Mineta announced the National Strategy to Reduce Congestion America's Transportation Network. This strategy provides the framework for government officials, the private sector, and most importantly, the citizen-user to take the necessary steps to make today's traffic congestion a thing of the past." It further states that "solutions will require... improved productivity of existing transportation assets." ICM is one tool in the congestion management toolbox to accomplish just that: improved productivity of existing assets.

The USDOT's ICM Initiative focuses on providing real-time traveler information, multimodal operations and the use of technology to reduce congestion. Ms. Shelley Row, Director of USDOT's ITS Joint Program Office, notes that the USDOT's ICM Initiative "provides a synergistic approach to the Congestion Initiative as it offers the opportunity to truly advance transportation operations in a multimodal manner." Ms. Row further notes that "many cities have invested significant resources in an ITS infrastructure for highways, arterials, and transit systems. It is time to leverage this investment and operate the system in a coordinated manner that encompasses technical, operation, and institutional coordination."



Commuters in 2003 spent an average of 47 hours of extra time in traffic delays—on top of what their commute would have been at the speed limit—up from 16 hours in 1982.

— The Texas Transportation Institute's 2005 Urban Mobility Report on 85 urban areas.¹

¹ The Texas Transportation Institute's 2005 Urban Mobility Report on 85 urban areas.

Visit the USDOT's National Strategy to Reduce Congestion Web site at www.fightgridlocknow.gov for more information on the USDOT's Congestion Initiative. See the USDOT's ICM Web site at <http://www.its.dot.gov/itsweb/icms/index.htm> for more information on ICM and how it can help regions improve the productivity of their existing transportation network assets, as well as improve travel time reliability, manage congestion and empower travelers through better information and improved travel choices. >>>



USDOT Selects Sites, continued from p. 1

Stage 1—Concept Development (FY07). All eight sites will develop site-specific concept of operations (CONOPS) and requirements documents. Each site will also provide sample data for evaluation.

Stage 2—Modeling (FY08–FY09). Up to four sites will analyze and model their proposed ICM systems using USDOT-provided resources, methodologies and tools.

Stage 3—Demonstration and Evaluation (FY09–FY11). USDOT will select up to four sites to demonstrate ICM concepts that may have applicability to a broad range of corridors around the country.

The Pioneer Sites are currently in Stage 1 and are just completing development of their CONOPS. Once these CONOPS are finalized, they will be available to transportation practitioners around the country through the ICM Knowledgebase Web site at www.its.dot.gov/icms/compedium.htm.

Visit the ICM Web site regularly at <http://www.its.dot.gov/itsweb/icms/> for more information on the Pioneer Sites and updates on their progress in the development of innovative ICM strategies to manage congestion. >>>



The Wall Street Journal Highlights Congestion Management Strategies

In April 2006, the Wall Street Journal profiled five innovative ICM-related strategies that have promise to help manage congestion¹:

- Improving incident management through quick clearance and reducing rubbernecking
- Increasing use of adaptive traffic signals that change color based on actual traffic flow
- Increasing use of HOT Lanes
- Encouraging employers to help better manage the demand for existing roadways by offering incentive programs for commuting by a method other than a single-occupant vehicle
- Providing more and better traveler information on current traffic conditions and alternative routes

Please see the ICM Events of Interest and Report Headlines on page 9 for more updates!

¹ Saranow, Jennifer. *Easing the Logjam*, Wall Street Journal, April 17, 2006; Page R5

Pioneer Site Location	Corridor Assets To Be Integrated with ICM									
	HOV	Tolling	Value Pricing	Real-time Control	Fixed Route	Express Buses	Bus Rapid Transit	Commuter Rail	Light Rail	Subway/Heavy Rail
Dallas, Texas	◆	◆		◆	◆	◆			◆	
Houston, Texas	◆	◆	◆	◆	◆	◆	◆			
Minneapolis, Minnesota	◆	◆	◆	◆	◆	◆	◆			
Montgomery County, Maryland	◆			◆	◆	◆		◆		◆
Oakland, California	◆	◆		◆	◆	◆	◆	◆		◆
San Antonio, Texas				◆	◆	◆				
San Diego, California	◆	◆	◆	◆	◆	◆	◆			
Seattle, Washington	◆			◆	◆	◆		◆	◆	

“ICM provides a synergistic approach to the Congestion Initiative as it offers the opportunity to truly advance transportation operations in a multimodal manner.”

—Shelley Row, Director of USDOT’s ITS Joint Program Office



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To learn more about the USDOT ICM Initiative:

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