U.S. Department of Transportation's

Intelligent Transportation Infrastructure Deployment Database: Interim Report

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Intelligent Transportation Infrastructure Deployment Database: *Interim Report*

Operation TimeSaver

U.S. Department
of Transportation

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U.S. Department of Transportation

Intelligent Transportation Infrastructure Deployment Database: Interim Report

Prepared by the Federal Highway Administration,
Office of Traffic Management and ITS Applications
with Data Collection by Oak Ridge National Laboratory,
Knoxville, Tennessee

June 1996
Washington, DC

EXECUTIVE SUMMARY

In January 1996, US. Department of Transportation Secretary Federico Pena unveiled the Operation Timesaver initiative at the annual meeting of the transportation Research Board (TRB). The Secretary set a national goal of building and deploying an Intelligent Transportation Infrastructure (ITI) across the US "to save time and lives and improve the quality of life for Americans.

Operation Timesaver challenges state and local transportation planners to "buy smart" by investing in an arsenal of new technological tools to keep the flow of people and goods moving more smoothly, safely, and with less impact on the environment.

Intelligent Transportation Infrastructure (ITI) is the infrastructure portion of Intelligent Transportation Systems (ITS) in metropolitan areas. The ITI refers to those portions of ITS-related hardware, software, services, etc. that today and increasingly in the future, will manage and support the transportation-related activities. This is typically happening first in metropolitan areas but is expanding to include specific commercial vehicle services and rural needs.

This report summarizes the deployment of Intelligent Transportation Infrastructure (ITI) in the largest 75 Metropolitan Areas United States and answers the question: "What Intelligent Transportation Infrastructure is operational and in the field today?' This report showcases the deployment of the ITI components.

Regional Multimodal Traveler Information Center (RMTIC)
Traffic Signal Control System
Freeway Management System
Transit Management System
Incident Management Program
Electronic Fare Payment System
Electronic Toll Collection (ETC) System
Railroad Grade Crossing Warning System and
Emergency Management System

At the printing of this report in June 1996, two components are not represented, Railroad Grade Crossing Warning System and Emergency Management System. Data collection efforts for these two components are currently underway and will be reported in later versions of this summary.

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It is hoped the reader will be able to review the report and quickly identify what ITI Technologies are deployed, and where they are deployed. The reader will also be able to obtain detailed information about any of the projects listed on this exhibit by using the Intelligent Transportation Infrastructure Deployment Monitoring System being developed by Oak Ridge National Laboratory (ORNL) for the U.S. DOT. This database can be accessed by the Internet address http://128.169.84.18/.   The data used in this report and the deployment monitoring database is based on unverified survey data current as of June 1996. Transportation professionals are encouraged to comment on the database. The intention is to update and distribute this report on a regular basis.

The attached tables summarize ITI deployments in 75 large metropolitan areas. As you can see, a number of areas have already made partial investments in the ITI.   There are 41 Freeway Management Centers, 39 Advanced Public Transportation, 57 Centralized Traffic Signal Control Systems, Incident Management Programs 39, and 28 with Electronic Toll Collection Systems.

Note: Funding of the ITI is through various public/ private sources to include Federal, State and Local funds.

Foreword

The purpose of this report is to show the deployment of Intelligent Transportation Infrastructure (ITI) in the United States. The report answers the question: "What Intelligent Transportation Infrastructure is operational and in the field today?" The report will showcase the deployment of ITI components (defined and listed below) in the largest 75 Metropolitan Areas in the United States. A reader should be able to view the report and quickly identify what ITI Technologies are deployed, and where they are deployed. The reader will also be able to obtain detailed information about any of the projects listed on this report by using the Intelligent Transportation Infrastructure Deployment Monitoring System being developed by Oak Ridge National Laboratory (ORNL).

Funding of the ITI is through various public/ private sources to include Federal, State and Local funds. The data for this report and the deployment monitoring system is currently being collected through a contract with ORNL. This collection effort began in September of 1995. However, data collection under this effort did not include the Railroad Grade Crossing Warning System and the Emergency Management System ITI components. The data used in this report and the deployment monitoring database is based on survey data current as of June 1996.

Construction of the World Wide Web (WWW) home page is complete. As mentioned earlier, the ITI Deployment Monitoring System will be linked to many other transportation and engineering related web sites.

More information on the ITI Deployment Monitoring System can be obtained by contacting Barry Zimmer of the FHWA Office of Traffic Management and ITS Applications, at e-mail address bzimmer@intergate.dot.gov. Mr. Zimmer can also be reached by faxing comments or questions to 202-366-8712.

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For more detailed information, or to provide comments,
this data can be accessed on the World Wide Web at:

http://128.169.84.18/

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Definition of the Intelligent Transportation Infrastructure (ITI) Components

The U.S. DOT has defined nine infrastructure components for Intelligent Transportation System (ITS) traffic management and traveler information services in a metropolitan area. The elements are basic ITS capabilities which are currently available for deployment or are already in operation. The ITI components are defined as follows:

Funding of the ITI is through various public/ private sources to include Federal, State and Local funds. The Regional Multimodal Traveler Information Center (RMTIC) provides a centralized source of roadway and transit information, and gives a comprehensive and integrated view of the road and traffic conditions throughout a metropolitan area or region. The RMTIC is considered a key feature of the ITI in that it will be the focal point for information collection and dissemination. The RMTIC will link data from the other ITI features into a comprehensive regional information system, thereby facilitating the timely distribution of critical travel-related information to the traveler and transportation-related commercial users.

2. Traffic Signal Control System:

Current state-of-the-art traffic signal control systems have the capability to dynamically modify the signal timings in response to changing traffic demand and to coordinate operation between adjacent signals to maximize the roadway (network) throughput. At a minimum, these coordinated signal control systems can provide for the selection of several time-of-day or special signal timing patterns that can optimize operations along major arterial routes and over traffic networks.

3. Freeway Management System:

Freeway traffic managers in a metropolitan area have the capability to:
- monitor traffic and other environmental conditions on the freeway system,
- identify recurring and non-recurring flow impediments,
- implement various control and management strategies (such as ramp metering and/or lane control),
- provide critical information to travelers through infrastructure-based dissemination methods, such as variable message signs and highway advisory radio.

4. Transit Management System:

Transit fleet management systems for metropolitan areas manage bus operations based on real-time bus locations. Automatic Vehicle Location (AVL) data is used to optimize bus routes by providing reliable bus position information to the dispatch. The dispatcher with computer assistance can compare the vehicle location with schedule information to track schedule adherence, and when necessary take corrective actions to either get the vehicle back on schedule or dispatch additional resources to cover the route. In addition, any pertinent schedule information would be provided to the RMTIC for dissemination in near real-time to the traveler,

5. Incident Management Program:
Metropolitan areas currently have systems for quickly identifying and responding to incidents that occur on freeways and major arterials. The objectives are to rapidly respond to incidents with the proper personnel and equipment, to aid accident victims, and to facilitate the rapid clearance of the accident from the roadway. Timely execution of these activities will save lives while minimizing the buildup of queues and reducing the delays and frustrations of the traveling public. To accomplish this, real-time input from the freeway and arterial surveillance systems and the agencies responsible for managing them is critical.

6. Electronic Fare Payment System:
Electronic fare payment systems will be in operation within metropolitan areas for collection of transit fares, parking lot fees, etc. The systems will include hardware and software for roadside, in-vehicle, and in-station use; and passenger/driver payment cards, which possibly would include financial and card accounting systems. Electronic fare collection eliminates the need for travelers to carry exact fare (change) amounts and facilitates the subsequent implementation of a single fare payment medium for all public transportation services, Manual cash payment would continue to be supported.

7. Electronic Toll Collection (ETC) System:
Electronic payment systems are in operation within or around a number of metropolitan areas (and on segments of rural interstate systems) for automated toll collection. Toll payment is processed via payment cards or tags as the vehicle passes the toll station at a safe speed (ultimately at normal highway speed), thereby decreasing delays and improving roadway throughput.

8. Railroad Grade Crossing Warning System:
Improvements to Railroad Grade Crossing safety would feature the use of an in-vehicle warning system to encourage safe driving behavior by better focusing driver attention on the danger of trains approaching a railroad crossing.

9. Emergency Management System:
The proper authorities would have immediate notification of the precise location of crashes and breakdowns via an in-vehicle "MAYDAY" button. This technology would primarily be aimed at rural America where accidents and breakdowns, on the average, are reported less quickly than in metropolitan areas.

Intelligent Transportation Infrastructure (ITI) Deployment Monitoring System

The establishment of a national inventory on Intelligent Transportation Infrastructure will not only help answer many of the congressional requests involving the ITS program, but it will also provide the U.S. DOT with the necessary raw data on the deployment of ITI for benefit-cost purposes. The ITI Deployment Monitoring System will solidify the U.S. DOT's role in energizing the information sharing of ITI Deployment at all levels of government.

It is certainly useful for transportation officials to be able to obtain current and up to date information regarding the deployment of Intelligent Transportation Infrastructure. On the following pages is a sample of the infrastructure deployment data that can be accessed using the deployment monitoring database. Funding for the ITI is from a variety of both public and private sources to include Federal, State, and Local funds. The first table is an alphabetical listing of the 75 Metropolitan Areas and their ITI Deployment. The second table is an alphabetical listing by FHWA Region of the 75 Metropolitan Areas and their ITI Deployment. Also available is a more detailed handout, by Region, of each Metropolitan Area's ITI Deployments. The data tables detail the deployment of ITI in each state and region of the United States. The data collection for the Metropolitan Areas that are included in the 75 largest is complete.

* Note: The data used in the following database and handouts are based on unverified survey data, which is current as of June 1996.

CODE FOR DATABASE

Y = Yes, Metropolitan area has a particular ITI deployment.
N = No, Metropolitan area does not have a particular ITI deployment.
Total Number = Total ITI deployed within a Region.

TABLE 1 - 75 Metropolitan Areas ITI

Metropolitan Area	Intelligent Transportation Infrastructure				
	Freeway Management Centers	Advanced Public Transportation	Centralized Traffic Signal Control Systems	Incident Management Programs	Electronic Toll Collection Systems
Albany, Schenectady, Troy	N	Y	N	Y	Y
Allentown, Bethlehem, Easton	N	N	N	N	N
Atlanta	Y	Y	Y	Y	Y
Austin	N	N	Y	Y	N
Bakersfield	N	N	N	N	N
Baltimore	Y	Y	Y	Y	Y
Baton Rouge	N	N	N	N	N
Birmingham	Y	N	Y	Y	N
Boston, Lawrence, Salem	Y	Y	Y	Y	Y
Buffalo, Niagara Falls	Y	Y	N	Y	Y
Charleston	Y	Y	Y	Y	N
Charlotte, Gastonia, Rock Hill	Y	N	Y	Y	N
Chicago, Gary, Lake County	Y	Y	Y	Y	Y
Cincinnati, Hamilton	Y	Y	Y	N	N
Cleveland, Akron, Lorain	N	Y	N	N	Y
Columbus	Y	Y	Y	Y	N
Dallas, Forth Worth	Y	Y	Y	Y	Y
Dayton, Springfield	N	N	Y	N	N
Denver, Boulder	Y	Y	Y	Y	Y
Detroit, Ann Arbor	Y	Y	Y	Y	Y
El Paso	Y	Y	Y	N	N
Fresno	Y	N	Y	N	N
Grand Rapids	N	N	Y	N	N
Greensboro, Winston-Salem, High Point	Y	Y	Y	Y	N

Metropolitan Area	Intelligent Transportation Infrastructure				
	Freeway Management Centers	Advanced Public Transportation	Centralized Traffic Signal Control Systems	Incident Management Programs	Electronic Toll Collection Systems
Greenville, Spartanburg	N	N	Y	Y	N
Harrisburg, Lebanon, Carlisle	N	N	N	N	N
Hartford, New Britain, Middletown	Y	Y	Y	N	N
Honolulu	Y	N	Y	N	N
Houston, Galveston, Brazoria	Y	Y	Y	Y	Y
Indianapolis	N	N	N	N	N
Jacksonville	Y	N	Y	Y	N
Kansas City	N	Y	Y	Y	Y
Knoxville	N	N	N	N	N
Las Vegas	Y	N	Y	N	N
Little Rock, North Little Rock	N	N	Y	N	N
Los Angeles, Anaheim, Riverside	Y	Y	Y	Y	Y
Louisville	N	Y	Y	N	N
Memphis	N	N	N	N	N
Miami, Fort Lauderdale	Y	Y	Y	Y	Y
Milwaukee, Racine	Y	Y	N	Y	N
Minneapolis, St. Paul	Y	Y	Y	Y	N
Nashville	N	N	Y	N	N
New Haven, Meriden	Y	Y	Y	Y	N
New Orleans	N	N	Y	N	Y
New York, Northern New Jersey, Long Island	Y	Y	Y	Y	Y
Norfolk, Virginia Beach, Newport News	Y	Y	Y	N	N
Oklahoma City	N	N	Y	N	Y
Omaha	N	N	Y	N	N
Orlando	Y	N	Y	Y	Y

Metropolitan Area	Intelligent Transportation Infrastructure				
	Freeway Management Centers	Advanced Public Transportation	Centralized Traffic Signal Control Systems	Incident Management Programs	Electronic Toll Collection Systems
Philadelphia, Wilmington, Trenton	Y	N	N	Y	Y
Phoenix	Y	Y	Y	Y	N
Pittsburgh, Beaver Valley	N	Y	Y	N	N
Portland, Vancouver	Y	Y	Y	Y	N
Providence, Pawtucket, Fall River	Y	N	Y	Y	N
Raleigh-Durham	N	Y	Y	Y	N
Richmond, St. Petersburg	N	N	Y	N	N
Rochester	N	Y	Y	N	N
Sacramento	Y	N	Y	Y	N
Salt Lake City, Ogden	N	N	Y	N	N
San Antonio	Y	Y	Y	Y	N
San Diego	Y	N	Y	Y	Y
San Francisco, Oakland, San Jose	Y	Y	Y	Y	Y
Scranton, Wilkes-Barre	N	Y	N	N	N
Seattle, Tacoma	Y	Y	Y	Y	N
Springfield	N	Y	N	N	Y
St. Louis	Y	N	N	Y	N
Syracuse	N	N	N	N	Y
Tampa, St. Petersburg, Clearwater	Y	Y	Y	Y	Y
Toledo	N	N	Y	N	N
Tucson	N	Y	Y	N	N
Tulsa	N	N	Y	N	Y
Washington	Y	Y	Y	Y	Y
West Palm Beach, Boca Raton, Delray	N	N	Y	N	Y
Wichita	N	N	N	N	Y

Metropolitan Area	Intelligent Transportation Infrastructure				
	Freeway Management Centers	Advanced Public Transportation	Centralized Traffic Signal Control Systems	Incident Management Programs	Electronic Toll Collection Systems
Youngstown, Warren	N	N	N	N	Y
TOTAL	41	39	57	39	28

TABLE 2 - 75 Metropolitan Areas ITI by Region

Metropolitan Area	Intelligent Transportation Infrastructure				
	Freeway Management Centers	Advanced Public Transportation	Centralized Traffic Signal Control Systems	Incident Management Programs	Electronic Toll Collection Systems

FHWA Region 1

Metropolitan Area	Freeway Management Centers	Advanced Public Transportation	Centralized Traffic Signal Control Systems	Incident Management Programs	Electronic Toll Collection Systems
Albany, Schenectady, Troy	N	Y	N	Y	Y
Boston, Lawrence, Salem	Y	Y	Y	Y	Y
Buffalo, Niagara Falls	Y	Y	N	Y	Y
Hartford, New Britain, Middletown	Y	Y	Y	N	N
New Haven, Meriden	Y	Y	Y	Y	N
New York, Nothern New Jersey, Long Island	Y	Y	Y	Y	Y
Providence, Pawtucket, Fall River	Y	N	Y	Y	N
Rochester	N	Y	Y	N	N
Springfield	N	Y	N	N	Y
Syracuse	N	N	N	N	Y
Totals 10 MPOs	6	8	6	6	6

FHWA Region 3

Metropolitan Area	Freeway Management Centers	Advanced Public Transportation	Centralized Traffic Signal Control Systems	Incident Management Programs	Electronic Toll Collection Systems
Allentown, Bethlehem, Easton	N	N	N	N	N
Baltimore	Y	Y	Y	Y	Y
Harrisburg, Lebanon, Carlisle	N	N	N	N	N
Norfolk, Virginia Beach, Newport News	Y	Y	Y	N	N
Philadelphia, Wilmington, Trenton	Y	N	N	Y	Y
Pittsburgh, Beaver Valley	N	Y	Y	N	N
Richmond, St. Petersburg	N	N	Y	N	N
Scranton, Wilkes-Barre	N	Y	N	N	N
Washington	Y	Y	Y	Y	Y
Totals 9 MPOs	4	5	5	3	3

Metropolitan Area	Intelligent Transportation Infrastructure				
	Freeway Management Centers	Advanced Public Transportation	Centralized Traffic Signal Control Systems	Incident Management Programs	Electronic Toll Collection Systems

FHWA Region 4

Metropolitan Area	Freeway Management Centers	Advanced Public Transportation	Centralized Traffic Signal Control Systems	Incident Management Programs	Electronic Toll Collection Systems
Atlanta	Y	Y	Y	Y	Y
Birmingham	Y	N	Y	Y	N
Charleston	Y	Y	Y	Y	N
Charlotte, Gastonia, Rock Hill	Y	N	Y	Y	N
Greensboro, Winston-Salem, High Point	Y	Y	Y	Y	N
Greenville, Spartanburg	N	N	Y	Y	N
Jacksonville	Y	N	Y	Y	N
Knoxville	N	N	N	N	N
Louisville	N	Y	Y	N	N
Memphis	N	N	N	N	N
Miami, Fort Lauderdale	Y	Y	Y	Y	Y
Nashville	N	N	Y	N	N
Orlando	Y	N	Y	Y	Y
Raleigh-Durham	N	Y	Y	Y	N
Tampa, St. Petersburg, Clearwater	Y	Y	Y	Y	Y
West Palm Beach, Boca Raton, Delray	N	N	Y	N	Y
Totals 16 MPOs	9	7	14	11	5

FHWA Region 5

Metropolitan Area	Freeway Management Centers	Advanced Public Transportation	Centralized Traffic Signal Control Systems	Incident Management Programs	Electronic Toll Collection Systems
Chicago, Gary, Lake County	Y	Y	Y	Y	Y
Cincinnati, Hamilton	Y	Y	Y	N	N
Cleveland, Akron, Lorain	N	Y	N	N	Y
Columbus	Y	Y	Y	Y	N

Metropolitan Area		Intelligent Transportation Infrastructure				
		Freeway Management Centers	Advanced Public Transportation	Centralized Traffic Signal Control Systems	Incident Management Programs	Electronic Toll Collection Systems
Dayton, Springfield		N	N	Y	N	N
Detroit, Ann Arbor		Y	Y	Y	Y	Y
Grand Rapids		N	N	Y	N	N
Indianapolis		N	N	N	N	N
Milwaukee, Racine		Y	Y	N	Y	N
Minneapolis, St. Paul		Y	Y	Y	Y	N
Toledo		N	N	Y	N	N
Youngstown, Warren		N	N	N	N	Y
Totals	12 MPOs	6	7	8	5	4

FHWA Region 6

Metropolitan Area		Freeway Management Centers	Advanced Public Transportation	Centralized Traffic Signal Control Systems	Incident Management Programs	Electronic Toll Collection Systems
Austin		N	N	Y	Y	N
Baton Rouge		N	N	N	N	N
Dallas, Fort Worth		Y	Y	Y	Y	Y
El Paso		Y	Y	Y	N	N
Houston, Galveston, Brazoria		Y	Y	Y	Y	Y
Little Rock, North Little Rock		N	N	Y	N	N
New Orleans		N	N	Y	N	Y
Oklahoma City		N	N	Y	N	Y
San Antonio		Y	Y	Y	Y	N
Tulsa		N	N	Y	N	Y
Totals	10 MPOs	4	4	9	4	5

Metropolitan Area	Intelligent Transportation Infrastructure				
	Freeway Management Centers	Advanced Public Transportation	Centralized Traffic Signal Control Systems	Incident Management Programs	Electronic Toll Collection Systems

FHWA Region 7

Metropolitan Area					
Kansas City	N	Y	Y	Y	Y
Omaha	N	N	Y	N	N
St. Louis	Y	N	N	Y	N
Wichita	N	N	N	N	Y
Totals 4 MPOs	1	1	2	2	2

FHWA Region 8

Metropolitan Area					
Denver, Boulder	Y	Y	Y	Y	Y
Salt Lake City, Ogden	N	N	Y	N	N
Totals 2	1	1	2	1	1

FHWA Region 9

Metropolitan Area					
Bakersfield	N	N	N	N	N
Fresno	Y	N	Y	N	N
Honolulu	Y	N	Y	N	N
Las Vegas	Y	N	Y	N	N
Los Angeles, Anaheim, Riverside	Y	Y	Y	Y	Y
Phoenix	Y	Y	Y	Y	N
Sacramento	Y	N	Y	Y	N
San Diego	Y	N	Y	Y	Y
San Francisco, Oakland, San Jose	Y	Y	Y	Y	Y
Tucson	N	Y	Y	N	N
Totals 10 MPOs	8	9	9	5	3

Metropolitan Area	Intelligent Transportation Infrastructure				
	Freeway Management Centers	Advanced Public Transportation	Centralized Traffic Signal Control Systems	Incident Management Programs	Electronic Toll Collection Systems

FHWA Region 10

Metropolitan Area		Freeway Management Centers	Advanced Public Transportation	Centralized Traffic Signal Control Systems	Incident Management Programs	Electronic Toll Collection Systems
Portland, Vancouver		Y	Y	Y	Y	N
Seattle, Tacoma		Y	Y	Y	Y	N
Totals	2 MPOs	2	2	2	2	0
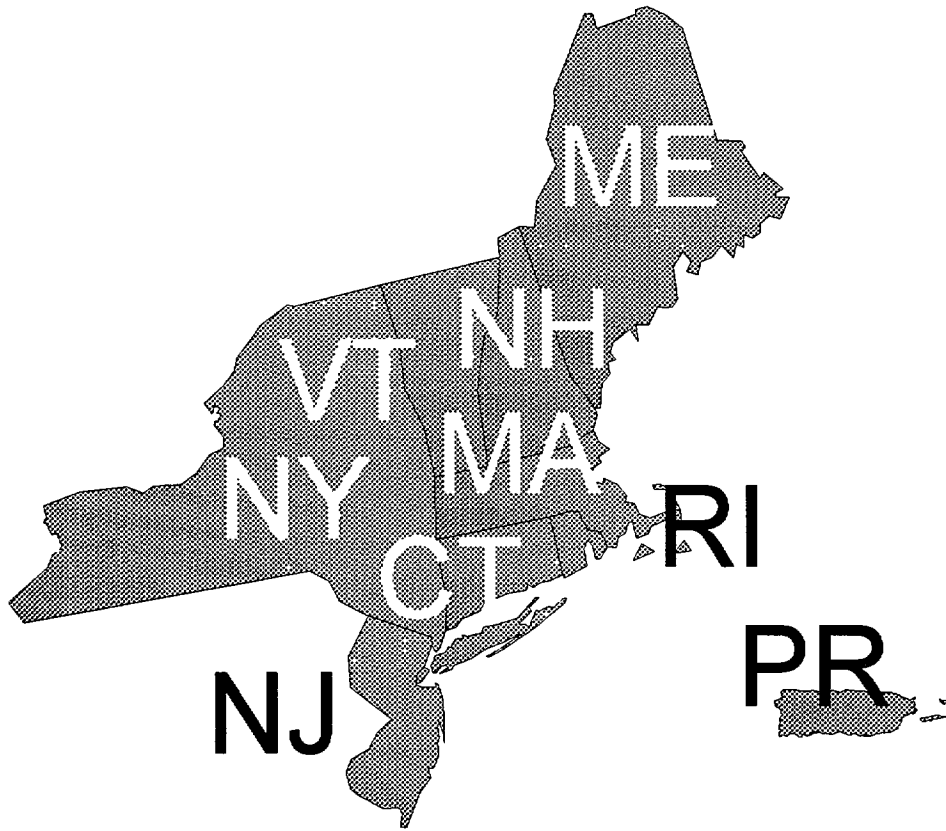
Region 1

Table 1 - Traffic Signal Control Systems

Metropolitan Area	Jurisdiction	# of Centrally Controlled Signals	CCTV	Call Boxes	Inductive Loops	Video Detection	Aircraft	Service Patrols	Cell-Phone	Vehicle Probes	CB Radio	Other	Coaxial Cable	Fiber Optic	Microwave	Other	NEMA	170	Other	ATC	SCOOT	SCATS	UTCS	Other	Special Events	Time of Day	Traff Responsive	Vehicle Preemption	General Comments
			Traffic Information Collection										Means of Comm.				Means of Control			System Software					System Operation				
Boston, MA	City of Boston	320			X								X				X						X		X	X	X		
Hartford, CT	City of Hartford	200	X		X							X	X				X	X					X		X	X	X		Radar Detectors
Hartford, CT	Newington Operations Center	400			X								X				X						X		X	X	X	X	
New Haven, CT	Bridgeport Operations Center	200			X								X				X							X	X	X	X	X	Closed Loop Distributed
New Haven, CT	New Haven Master Traffic Control Center	78			X								X				X							X	X	X			JHK Series 2000
New York	Nassau County																												
New York	NYC DOT Traffic Managemnet Center	6000	X		X								X						X				X		X	X	X	X	DEC 6240, Heurikon
New York	Westchester County	15			X								X				X						X		X	X	X		
New York	White Plains Trafffic Control Center	96	X		X							X	X	X			X	X	X					X	X	X	X	X	JHK Series 2000 Microwave

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Metropolitan Area	Jurisdiction	# of Centrally Controlled Signals	Traffic Information Collection										Means of Comm.				Means of Control			System Software					System Operation				General Comments
			CCTV	Call Boxes	Inductive Loops	Video Detection	Aircraft	Service Patrols	Cell-Phone	Vehicle Probes	CB Radio	Other	Coaxial Cable	Fiber Optic	Microwave	Other	NEMA	170	Other	ATC	SCOOT	SCATS	UTCS	Other	Special Events	Time of Day	Traff. Responsive	Vehicle Preemption	
New York	Traffic Operations Center- North Newark	40	X		X	X						X	X				X	X							X	X	X	X	
Providence, RI	State of Rhode Island																													In Design
Rochester, NY	Rochester/ Monroe County Traffic Control Cneter	381			X							X	X		X		X						X		X	X	X		Microwave Detectors

Table 2 - Freeway Management Systems

Metropolitan Area	Operation Name	Operator	Coverage Area	Ramp Metering	Traffic Detection & Verification								Motorist Information					General Comments
					Operation Center	Service Patrols	Inductive Loops	CCTV	CB-Radio	Cell-Phone	Call Boxes	Other	Alt. Routes	HAR	Media	VMS	Other	
Boston, MA	Traffic Operations Center	Mass. Highway Department	Southeast Expressway and the I-95/SR-128 corridor	None	X	X	X			X	X				X	X	X	SmarTraveler
Buffalo, NY	NITTEC Traffic Operations Center	NITTEC, NYSDOT	Under Design	None						X		X			X			
Hartford, CT	Newington Operations Center	CT DOT	19 miles of freeway in Hartford Metro Area	None	X			X				X	X	X	X			Roadside Mounted Radar, Real-time Data Collection
New Haven, CT	Bridgeport Operations Center	CT DOT	56 Miles of I-95	None	X			X			X	X		X	X			Radar Detectors
New York	INFORM																	
New York	Northern New Jersey Traffic Operations Center	New Jersey Turnpike Authority	44 miles of New Jersey Turnpike	Yes	X	X	X	X	X	X				X	X	X	X	Information Kiosks
New York	MAGIC		92 Miles	Construct		X	X	X	X	X	X			X		X	X	TRANSCOM
Providence, RI	I-95				X	X	X	X		X	X			X		X	X	Center in Design Phase

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Table 3 - Advanced Public Transportation Systems

Metropolitan Area	Transit Operator	# of Buses w/ ITS Tech.	Transit Vehicle Technology						Traveler Services						Rail System	General Comments
			AVL	On Board Display	2 Way Data Comm.	Transit Opers. Software	Automated Disp.	Other	Passenger Info Sys.	Ride Share Info.	Reservation & Billing Sys.	Integrated Fare Media	Electronic Payment	Other		
Albany, NY	Capital District Tranpsortation Authority (CDTA)	230	X		X		X	X					X		No	Silent Alarm System, Engine Componenet Probes, Interactive Voice Response
Boston, MA	Massachusetts Bay Transporation Authority (MBTA)	900							X						No	
Buffalo, NY	Metro (Buffalo, NY)	355							X						No	AVL will be installed
Buffalo, NY	Niagara Frontier Transportation Authority	375	X		X	X										Under Construction
Hartford, CT	Connecticut Department of Transportation - Hartford	220											X		No	
New Haven, CT	Connecticut Department of Transportation - New Haven	113											X		No	
New York	Connecticut Department of Transportation - Stamford	37											X		No	

Metropolitan Area	Transit Operator	# of Buses w/ ITS Tech.	Transit Vehicle Technology						Traveler Services						Rail System	General Comments
			AVL	On Board Display	2 Way Data Comm.	Transit Opers. Software	Automated Disp.	Other	Passenger Info Sys.	Ride Share Info.	Reservation & Billing Sys.	Integrated Fare Media	Electronic Payment	Other		
New York	MTA Long Island Bus	318													No	AVL, Computer Aided Dispatch, Silent Alarm, and Passenger Info under Design
New York	New Jersey Transit	800	X		X		X	X	X					X	No	Silent Alarm System, Telephone Information System
New York	New York City Transit	170										X			No	Installing AVL, Silent Alarm, Computer Dispatching, Kiosks, and Passenger Info System
Rochester, NY	Rochester Genesee Regional Transit Authority	215					X	X	X					X	No	GPS Based Next Stop Messages, Interactive Voice Response
Springfield, MA	Pioneer Valley Transit Authority	178			X	X										AVL in design

Table 4 - Incident Management Programs

Metropolitan Area	Operation Name	Coverage Area	Participating Organizations	General Comments
Albany, NY	I-87/ Northway Corridor Incident Management Program	I-87 Corridor	Capital District Transportation Committee, New York Sate DOT, New York State Police	Effort is underway to set up a pilot incident management program.
Boston, MA	Boston Metropolitan Area Incident Management Program	Boston Metro Area including I-95/ Route 128 and I-93	MA Municipal Assoc., MA Turnpike Authority, State Fire Assoc., MEMA, Samaritania Inc., Statewide Towing Assoc., DEP, Mass. State Patrol, MassHighway	
Buffalo, NY	Western New York Incident Management Team	Expressways in the urban area, approx. 50 miles.	City of Buffalo Police Dept., NYS Thruway Authority, NYS Dept of Environmental Conservation, NY State Police, Erie and Niagara County Sheriffs, Erie and Niagara County Fire Dept., NYSDOT, Erie and Niagara County DPW, Niagara Frontier Traffic Safety Counsel, City of Buffalo Fire Dept., Niagara Frontier Transporation Authority, Niagara Transportation Committee Staff, Metro Networks, Adelphia Cable, AAA, Empire State Towing & Recoverey Association, Erie and Niagara County Disaster Preparedness	
New Haven, CT	Incident Management Program	I-95 from Greenwich to Branford	Local Planning/Engineering Representatives, Towing Operators, Emergency Medical Services, Local Police and Fire Departments, State Police, Southwest Regional Planning Association, CT DOT	
New York	Highway Emergency Local Patrol (HELP)	I-684, Sprain Brook Parkway and lower section of Bronx River Parkway	NYS Police, NYSDOT	
New York	New Jersey Turnpike Incident Management	New Jersey Turnpike	HAZMAT responders, wrecker companies, first aid squads, fire squads, New Jersey State Police - Troop D, New Jersey Turnpike Authority	

Metropolitan Area	Operation Name	Coverage Area	Participating Organizations	General Comments
New York	TRANSCOM	28 Counties in CT, NY, and NJ		
New York	Northern New Jersey Incident Management Program	Northern New Jersey		
Providence, RI	Statewide Incident Management Program			In Design

Table 5 - Electronic Toll Collection Systems

Metropolitan Area	Operation Name	Participating Organizations	Coverage Area	Antennae Location	In-Vehicle Equipment	General Comments
Albany, NY	New York State Thruway	New York State Thruway Authority	10 miles of NYS Thruway through Albany and Schenectady	Overhead	Tag Based Mark IV	
Boston, MA	3rd Harbor Tunnel	Massachusetts Turnpike Authority	3rd Harbor Tunnel	To be Deteremined	Tag Based	Currently under design
Boston, MA	Callahan & Sumner Tunnels	Massachusetts Turnpike Authority	Callahan & Sumner Tunnels	To be Determined	Tag Based	Currently under design
Buffalo, NY	New York State Thruway	NY State Thruway Authority	Niagra Section of the NYS Thruway	Overhead	Tag Based	
New York	Bayonne Bridge	Port Authority of NY and NJ	From NJ SR 501 to Willowbrook Expressway	Overhead	Tag Based	Not currently installed, should be installed by end of 1998
New York	Bronx - Whitestone Bridge	Triborough Bridge and Tunnel Authority	I-678 from Bronx to Queens	Overhead	Tag Base	Under Construction
New York	Brooklyn Battery Tunnel	Triborough Bridge and Tunnel Authority	I-478 from Manhattan to Brooklyn	Overhead	Tag Based	Under Construction
New York	Cross Bay Veteran's Memorial Bridge	Triborough Bridge and Tunnel Authority	Cross Bay Blvd across Jamaica Bay	Overhead	Tag Based	Under Construction
New York	Henry Hudson Bridge	Triborough Bridge and Tunnel Authority	From Manhattan to Bronx	Overhead	Tag Based	Under Construction
New York	Lincoln Tunnel	Port Authority of NY and NJ	SR -495 from Weehawken, NJ to Manhattan, NY	Overhead	Tag Based	In Design phase, begin installing mid-1997, to be completed end of 1998
New York	Marine Parkway Bridge	Triborough Bridge and Tunnel Authority	Flatbush Ave from Kings County to Queens County	Overhead	Tag Based	Under Construction

Metropolitan Area	Operation Name	Participating Organizations	Coverage Area	Antennae Location	In-Vehicle Equipment	General Comments
New York	New England Thruway	New York State Thruway Authority	I-95 from Pelham Parkway to Connecticut	Overhead	Tag Based	
New York	New York State Thruway	NY State Thruway Authority	Tappan Zee Bridge	Overhead	Tag Based	By May 1996, will operate on the NYS Thruway between New York City and Albany
New York	Outerbridge Crossing	Port Authority of NY and NJ	SR 440 from Perth Amboy, NJ to Staten Island, NY	Overhead	Tag Based	In Design phase, begin installing mid-1997, to be completed end of 1998
New York	Queens Midtown Tunnel	Triborough Bridge and Tunnel Authority	I-495 from Manhattan to Queens	Overhead	Tag Based	Under Construction
New York	Throngs Neck Bridge	Triborough Bridge and Tunnel Authority	I-295 from Bronx to Queens	Overhead	Tag Based	Under Construction
New York	Triborough Bridge	Triborough Bridge and Tunnel Authority	I-278 from Bronx to Queens	Overhead	Tag Based	Under Construction
New York	Verrazano - Narrows Bridge	Triborough Bridge and Tunnel Authority	I-278 from Staten Island to Brooklyn	Overhead	Tag Based	
Springfield, MA	Massachusetts Turnpike	Massachusetts Turnpike Authority	I-90 from NY state line to Boston	To be Determined	Tag Based	In Design Phase
Syracuse, NY	New York State Thruway	New York State Thruway Authority	NYS Thruway between Albany and Buffalo	Overhead	Tag Based	Under Construction

Region 3

Table 1 - Traffic Signal Control Systems

Metropolitan Area	Jurisdiction	# of Centrally Controlled Signals	Traffic Information Collection										Means of Comm.				Means of Control			System Software					System Operation				General Comments
			CCTV	Call Boxes	Inductive Loops	Video Detection	Aircraft	Service Patrols	Cell-Phone	Vehicle Probes	CB Radio	Other	Coaxial Cable	Fiber Optic	Microwave	Other	NEMA	170	Other	ATC	SCOOT	SCATS	UTCS	Other	Special Events	Time of Day	Traff Responsive	Vehicle Preemption	
Baltimore, MD	Baltimore DPW - Trans Engineering Div.	935			X								X						X						X	X			Custom Designed CCT, Proprietary Interval Based System
Norfolk, VA	City of Norfolk	100			X								X				X							X	X	X	X	X	Closed Loop Distributed Control Software
Pittsburgh, PA	City of Pittsburgh	93			X									X			X						X				X	X	
Richmond, VA	Richmond City	260			X								X						X						X	X		X	E Pact, MONARC: Eagle
Washington, DC	City of Alexandria	148			X						X		X				X						X		X	X			Microwave Detectors
Washington, DC	VA DOT	800			X								X	X												X	X	X	UTCS under construction
Washington, DC	Washington Department of Public Works	1350			X						X		X		X								X		X	X			Microwave Detectors

Metropolitan Area	Jurisdiction	# of Centrally Controlled Signals	Traffic Information Collection											Means of Comm.				Means of Control			System Software					System Operation				General Comments
			CCTV	Call Boxes	Inductive Loops	Video Detection	Aircraft	Service Patrols	Cell-Phone	Vehicle Probes	CB Radio	Other	Coaxial Cable	Fiber Optic	Microwave	Other	NEMA	170	Other	ATC	SCOOT	SCATS	UTCS	Other	Special Events	Time of Day	Traff. Responsive	Vehicle Preemption	
Washington, DC	Montgomery County ATMS	650	X		X									X									X				X	X	

Table 2 – Freeway Management Systems

Metropolitan Area	Operation Name	Operator	Coverage Area	Ramp Metering	Traffic Detection & Verification								Motorist Information					General Comments
					Operation Center	Service Patrols	Inductive Loops	CCTV	CB-Radio	Cell-Phone	Call Boxes	Other	Alt. Routes	HAR	Media	VMS	Other	
Baltimore, MD	SHA Traffic Operations Center(TOC) Golden Ring Mall	Maryland SHA	I-695, I-95, I-83, I-795, MD-295 & various arterials	None	X	X	X	X	X	X		X		X	X	X		Wide Area Radar Detector, Incident Management Program
Baltimore, MD	Statewide Operations Center (SOC)	Maryland SHA	Statewide	None	X	X	X	X	X	X		X		X	X	X		Overhead Radar Detector, Incident Management Program
Norfolk, VA	Elizabeth River Downtown & Midtown Tunnels	VA DOT	I-264 Downtown Tunnel	None	X		X	X				X	X			X		Vehicles as probes, Incident Management Program
Norfolk, VA	Hampton Roads Bridge-Tunnel	VA DOT	I-64 Hampton Roads Bridge Tunnel	None	X	X	X	X				X	X			X		Vehicles as probes, Incident Management Program
Norfolk, VA	Monitor-Merrimac Memorial Bridge-Tunnel	VA DOT	I-64 Monitor - Merrimac Memorial Bridge - Tunnel	None	X	X	X	X				X	X			X		Vehicles as probes, Incident Management Program
Norfolk, VA	Traffic Management System of Hampton Road	VA DOT	I-64 between I-564 & I-264/VA-44	None	X	X	X	X	X					X	X	X	X	Info available on personal computer via modem, Incident Management Program

Metropolitan Area	Operation Name	Operator	Coverage Area	Ramp Metering	Traffic Detection & Verification								Motorist Information					General Comments
					Operation Center	Service Patrols	Inductive Loops	CCTV	CB-Radio	Cell-Phone	Call Boxes	Other	Alt Routes	HAR	Media	VMS	Other	
Philadelphia, PA	I-476 Ramp Metering Project	PA DOT	I-476 between I-95 and the Pennsylvania Turnpike	Under Construction	X		X	X				X						Spread Spectrum Radio, Fiber Optic, Collection system under construction
Philadelphia, PA	Traffic and Incident Management System	PA DOT, Delaware River Port Authority, METRO, Philadelphia Highway Patrol	I-95 from SR-420 to Bridge Street	Under Construction	X	X		X				X			X	X		Surveillance Aircraft, Vehicle Probes
Washington. DC	I-66/I-95/I-395 Traffic Management System	VA DOT	I-66, I-95, I-395	Yes	X	X	X	X	X			X		X	X	X		Surveillance Aircraft
Washington, D.C	Northern Virginia Traffic Operations Center	VA DOT	I-66, I-395, I-95/495	None	X	X						X		X				Traffic Info. Collection via Surveillance Aircraft, Incident Management Program
Washington, D.C.	SHA Traffic Operations Center (TOC-3) College Park	Maryland SHA	I-95/495, I-270, US-50, US-29, MD-295, and various arterials	None	X	X	X	X	X	X		X		X	X	X		Traffic Info. Collection via Wide Area Radar Detector, Incident Management Program

Metropolitan Area	Operation Name	Operator	Coverage Area	Ramp Metering	Traffic Detection & Verification								Motorist Information					General Comments
					Operation Center	Service Patrols	Inductive Loops	CCTV	CB-Radio	Cell-Phone	Call Boxes	Other	Alt. Routes	HAR	Media	VMS	Other	
Washington, D.C.	Montgomery County Advanced Transportation Management Center	Montgomery County	I-270 & various arterials	None	X			X				X		X	X			Traffic Info Coll. via Surveillance Aircraft, Incident Mngt Prog

Table 3 - Advanced Public Transportation Systems

Metropolitan Area	Transit Operator	# of Buses w/ ITS Tech.	Transit Vehicle Technology						Traveler Services						Rail System	General Comments
			AVL	On Board Display	2 Way Data Comm	Transit Opers. Software	Automated Disp.	Other	Passenger Info Sys.	Ride Share Info.	Reservation & Billing Sys.	Integrated Fare Media	Electronic Payment	Other		
Baltimore, MD	Mass Transit Administration	935	X		X		X	X	X	X		X				Silent Alarm System, Automated Enunciation System
Norfolk, VA	Tidewater Regional Transit	200	X		X			X	X							Silent Alarm System
Pittsburgh, PA	Beaver County Transit Authority	36	X		X			X	X							Silent Alarm System
Scranton, PA	County of Lakawanna Transit System (COLTS)	32	X				X	X	X							Silent Alarm, GPS based next stop messages
Washington , DC	Potomac and Rappahannock Tranpsortation Commission	75	X		X	X	X									
Washington, DC	Montgomery County Ride-On	250						X						X		Ailent Alarm, Interactive Voice Response. AVL, Two-way data under construction, Passenger Info system in design phase.
Washington, DC	WMATA	1322						X				X	X		Yes	Automated Enunciation System

Table 4 - Incident Management Programs

Metropolitan Area	Operation Name	Coverage Area	Participating Organizations	General Comments
Baltimore, MD	Chesapeake Highway Advisory Routing Traffic (CHART)	All State Routes	Montgomery TMC, Maryland Toll Authorities, Maryland State Police, Maryland State Highway Authority	
Philadelphia, PA	Traffic and Incident Management System	I-95 from SR-420 to Bridge Street	Philadelphia Highway Patrol, Pennsylvania State Patrol, Pennsylvania DOT	
Washington, DC	I-66 Joint Operations Center	I-66, I-495, I-395, I-95	Montgomery County, Virgina State Police, Fairfax County Police, Fairfax County Fire and Rescue, Arlington County, Alexandria City, Prince William County, VA DOT, Washington DC, Prince Georges County, Maryland State Police, Maryland Department of Highways, I-66/I-95/I-395 Traffic Management System, Northern Virginia Traffic Operations Center, Loudon County	
Washington, DC	Chesapeake Highway Advisory Routing Traffic (CHART)	All State Routes	Maryland Toll Authorities, Maryland State Police, Maryland State Highway Authority, Montgomery County TMC	

Table 5 - Electronic Toll Collection Systems

Metropolitan Area	Operation Name	Participating Organizations	Coverage Area	Antennae Location	In-Vehicle Equipment	General Comments
Baltimore, MD	Susquehanna Bridge	Maryland Transportation Authority	US-40 across Susquehanna River	Focused Beam	Tag Based	
Philadelphia, PA	Ben Franklin Bridge	Delaware River Port Authority	I-676 from Camdon, NJ to Philadelphia, PA	Focused Beam	Bar Code, IC Card	passenger cars only weighing less than 7000 pounds
Philadelphia, PA	Betsy Ross Bridge	Delaware River Port Authority	SR-90 from Pennsauken, NJ to Philadelphia, PA	Focused Beam	Bar Code, IC Card	passenger cars only weighing less than 7000 pounds
Philadelphia, PA	Commodore John Barry Bridge	Delaware River Port Authority	US-322 from Bridgeport, NJ to Philadelphia, PA	Focused Beam	Bar Code, IC Card	passenger cars only weighing less than 7000 pounds
Philadelphia, PA	Walt Whitman Bridge	Delaware River Port Authority	I-76 from Gloucester, NJ to Philadelphia, PA	Focused Beam	Bar Code, IC Card	passenger cars only weighing less than 7000 pounds
Washington, DC	Dulles Greenway	TRIP II	Dulles Toll Road from Dulles Airport to Leesburg	Overhead	Tag Based: Mark IV	
Washington, DC	Dulles Toll Road	VA DOT	Dulles Toll Road from SR-28 to I-495	Overhead	Tag Based: Mark IV	

Region 4

Table 1 - Traffic Signal Control Systems

Metropolitan Area	Jurisdiction	# of Centrally Controlled Signals	Traffic Information Collection										Means of Comm.				Means of Control			System Software					System Operation				General Comments
			CCTV	Call Boxes	Inductive Loops	Video Detection	Aircraft	Service Patrols	Cell-Phone	Vehicle Probes	CB Radio	Other	Coaxial Cable	Fiber Optic	Microwave	Other	NEMA	170	Other	ATC	SCOOT	SCATS	UTCS	Other	Special Events	Time of Day	Traff. Responsive	Vehicle Preemption	
Atlanta, GA	City of Atlanta TrafficControl Center																												Awaiting Survey Response
Atlanta, GA	Clayton County Traffic Control Center																												Awaiting Survey Response
Atlanta, GA	Cobb County Traffic Control Center																												Awaiting Survey Response
Atlanta, GA	DeKalb County Traffic Control Center																												Awaiting Survey Response
Atlanta, GA	Fulton County Traffic Control Ceter																												Awaiting Survey Response
Atlanta, GA	Gwinnett County Traffic Control Center																												Awaiting Survey Response
Charleston, SC	City of Charleston	180	X		X								X	X				X						X	X	X	X	X	QUICNET

Metropolitan Area	Jurisdiction	# of Centrally Controlled Signals	Traffic Information Collection										Means of Comm.				Means of Control			System Software					System Operation				General Comments
			CCTV	Call Boxes	Inductive Loops	Video Detection	Aircraft	Service Patrols	Cell-Phone	Vehicle Probes	CB Radio	Other	Coaxial Cable	Fiber Optic	Microwave	Other	NEMA	170	Other	ATC	SCOOT	SCATS	UTCS	Other	Special Events	Time of Day	Traff Responsive	Vehicle Preemption	
Charlotte, NC	Charlotte Traffic Signal Control Center	410	X		X	X						X	X				X	X					X	X	X	X		X	Traconet
Greensboro, Winston-Salem, High Point, NC	Greensboro Traffic Management Center	300	X		X								X	X	X		X						X		X	X		X	
Greensboro, Winston-Salem, High Point, NC	Highpoint Signal System	135			X								X				X	X					X	X		X			Closed Loop Distributed
Greensboro, Winston-Salem, High Point, NC	Winston-Salem Traffic Control Center	300			X								X				X						X		X	X	X		
Greenville, Spartanburg, SC	City of Greenville																												Awaiting Survey Response
Greenville, Spartanburg, SC	City of Spartanburg Traffic Signal Control Center	60			X								X				X						X		X	X	X		Smartways
Jacksonville, FL	Jacksonville Urban Traffic Control Center	140			X								X				X						X			X			

Metropolitan Area	Jurisdiction	# of Centrally Controlled Signals	Traffic Information Collection										Means of Comm.				Means of Control			System Software					System Operation				General Comments
			CCTV	Call Boxes	Inductive Loops	Video Detection	Aircraft	Service Patrols	Cell-Phone	Vehicle Probes	CB Radio	Other	Coaxial Cable	Fiber Optic	Microwave	Other	NEMA	170	Other	ATC	SCOOT	SCATS	UTCS	Other	Special Events	Time of Day	Traff. Responsive	Vehicle Preemption	
Lousiville, KY	City Wide Traffic Signal System	580			X								X	X				X							X	X	X	X	
Miami, Fort Lauderdale, FL	Broward County Traffic Control Center	896			X								X				X						X		X	X			
Miami, Fort Lauderdale, FL	Dade County Traffic Control Center	2090			X								X	X			X	X					X		X	X	X		
Nashville, TN	Metro Nashville Traffic Control Center	376			X								X				X		X				X	X	X				Smartways, MIST
Orlando, FL	SEMTAC	89											X	X		X	X							X		X	X	X	TRANSYT
Orlando, FL	Traffic Management Center	400			X							X	X				X						X			X		X	Radar Detector
Raleigh-Durham, NC	Raleigh Traffic Control Center	400	X		X								X				X						X		X	X		X	
Tampa, FL	City of Clearwater	130			X								X				X						X		X	X	X		

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Metropolitan Area	Jurisdiction	# of Centrally Controlled Signals	Traffic Information Collection										Means of Comm.				Means of Control			System Software					System Operation				General Comments
			CCTV	Call Boxes	Inductive Loops	Video Detection	Aircraft	Service Patrols	Cell-Phone	Vehicle Probes	CB Radio	Other	Coaxial Cable	Fiber Optic	Microwave	Other	NEMA	170	Other	ATC	SCOOT	SCATS	UTCS	Other	Special Events	Time of Day	Traff Responsive	Vehicle Preemption	
Tampa, FL	City of St Petersburg	285			X								X				X						X		X	X			
Tampa, FL	City of Tampa	500			X								X				X						X		X	X			
Tampa, FL	Pinellas County	280			X								X				X						X		X	X	X		
West Palm Beach, Fl	Palm Beach County Traffic Control Signal Center	383			X								X	X			X						X			X		X	

Table 2 - Freeway Management Systems

Metropolitan Area	Operation Name	Operator	Coverage Area	Ramp Metering	Traffic Detection & Verification								Motorist Information					General Comments
					Operation Center	Service Patrols	Inductive Loops	CCTV	CB-Radio	Cell-Phone	Call Boxes	Other	Alt. Routes	HAR	Media	VMS	Other	
Atlanta, GA	Transportation Management Center	Georgia DOT	I-75, I-85	Under Construct	X		X	X				X					X	Traffic Information Distribution System Under Construction
Charleston, SC								X								X		Awaiting Survey Response
Charlotte, NC	CARAT	NC DOT	I-77	None	X	X			X	X				X		X		
Greensboro, Winston-Salem, High Point, NC	Greensboro Freeway Management Center	NC DOT	I-40, I-40/I-85, I-87, I-40	None	X	X			X	X	X			X		X		
Greensboro, Winston-Salem, High Point, NC	Winston-Salem Freeway Management Center	NC DOT	US 52, I-40	None	X	X	X		X			X	X	X	X			Surveillance Aircraft
Jacksonville, FL	Jacksonville Traffic Control Center	FDOT	I-10, I-95, I-295	None							X							CCTV, HAR, Kiosks in design phase
Miami, FL	Golden Glades Interchange Control Center	FDOT	I-95, SR 826, Florida Turnpike, SR 441	None	X			X	X	X					X			
Miami, FL	I-595 Changeable Message Sign System	FDOT	I-595	None														Under Construction

Metropolitan Area	Operation Name	Operator	Coverage Area	Ramp Metering	Traffic Detection & Verification								Motorist Information					General Comments
					Operation Center	Service Patrols	Inductive Loops	CCTV	CB-Radio	Cell-Phone	Call Boxes	Other	Alt. Routes	HAR	Media	VMS	Other	
Miami, FL	Pompano Traffic Operations Center	FDOT	To be determined	None	X	X	X	X		X	X			X		X		
Orlando, FL	I-4 Surveillance and Motorist Information System	FDOT, FL Highway Patrol	I-4	None	X		X	X	X	X		X			X	X		Surveillance Aircraft
Tampa, FL	Sunshine Skyway Bridge	FDOT	I-275	None				X		X					X	X		

Table 3 - Advanced Public Transportation Systems

Metropolitan Area	Transit Operator	# of Buses w/ ITS Tech.	Transit Vehicle Technology						Traveler Services						Rail System	General Comments
			AVL	On Board Display	2 Way Data Comm.	Transit Opers. Software	Automated Disp.	Other	Passenger Info Sys.	Ride Share Info.	Reservation & Billing Sys.	Integrated Fare Media	Electronic Payment	Other		
Atlanta,GA	MARTA	670							X			X				AVL, Computer Dispatching, Two-way Data Communications under construction
Charleston, SC																Awaiting Survey Response
Greensboro, Winston-Salem, High Point, NC	WSTA	17	X		X		X	X					X	X		Silent Alarm System, Telephone Info Number
Louisville, KY	TARC	257	X				X	X								Silent Alarm System
Miami, FL	Broward County Transit	200														RFP Issued in July 1995
Miami, FL	Metro-Dade Transit Agency	634	X		X	X	X	X	X		X					
Orlando, FL	LYNX								X							AVL, Two Way Data in Design
Raleigh-Durham, NC	Capital Area Transit	45												X		Interactive Cable Access Channel
Tampa, FL	Hartline	175	X		X			X								Silent Alarm System

Table 4 - Incident Management Programs

Metropolitan Area	Operation Name	Coverage Area	Participating Organizations	General Comments
Atlanta, GA	Atlanta Regional Commission Incident Management Task Force	Fulton, Dekalb, Clayon, Gwinnett, Cobb, Douglas, Henry, Fayett, Rockdale, and Cherokee Counties	AAA, Georgia State Patrol, Georgia Environmental Protection Department, Georgia Emergency Management, Georgia Department of Transportaton, Atlanta Regional Commission, City and County Transportation Departments, City and Couny Fire, Police, and EMS Departments	
Charleston, SC				Awaiting Survey Response
Charlotte, NC	Incident Management Program	I-77	Gaston County Fire Marshall, Gaston County Emergency Management, Gastonia EMS, Gastonia Fire Dept , Gastonia DOT, Charlotte/Mechlenburg Police Dept., MEDIC, Charlotte Fire Dept., Charlotte/ Mechlenburg Emergency Management, NC DOT, NC Emergency Management, NC State Highway Patrol	
Greensboro, Winston-Salem, High Point, NC	Forsyth County Incident Management Program	US 52, I-40	Motorist Assistance Patrol, NC DOT	
Greensboro, Winston-Salem, High Point, NC	Guilford County Incident Management Program	I-40/I-85, I-85, I-40, US 29	Guilford County Volunteer Fire Dept, Guilford County Emergency Management, NC Emergency Management, Guilford Fire Dept., Greensboro Police Dept., NC State Highway Patrol	
Greenville, Spartanburg, SC	Motorist Assistance Patrol	I-85, I-26	Fire, EMS, Police, State Troopers, Spartanburg Area Transportation Study, SC DOT	
Jacksonville, FL	Jacksonville Freeway Management Team	Duval County Freeways	Local Emergency Preparedness, Local Fire and Rescue, Traffic Center, FL DNR, City of Jacksonville, Jacksonville Sheriff, Florida Highway Patrol, Florida DOT	

Metropolitan Area	Operation Name	Coverage Area	Participating Organizations	General Comments

Miami, FL	Freeway Management Committee	Dade and Monroe Counties	FDOT , Metro Dade Public Works and Traffic Design, Metro Dade Communications, Metro Dade Police Dept., Kauff's Towing & Transportation, Metro Traffic Control, FDOT Haz Mat, DERM, Metro Dade Fire Dept., FL Highway Patrol Troops E & K, FDOT Turnpike, FDOT Traffic Ops.	
Orlando, FL	Tri-County Freeway Management Team	I-4	Local Police, Traffic Engineering, Fire/Rescue, and others. Florida Highway Patrol, FL DOT - District 8/Turnpike	
Raleigh-Durham, NC	Motor Assistance Patrol	I-40, I-440, I-85	Traffic Control Broadcasting Corp., FHWA, City DOT's in Wake and Durham, State and County Emergency Management, Towing Association, City and Volunteer Fire Dept., Wake County Sheriff, City Police, NC Highway Patrol	
Tampa, FL	Tampa Bay Area Freeway Management Team	I-4, I-275, I-75	Tampa Fire Department, Hillsborough EMS, Hillsborough Fire Dept., Tampa Police, Hillsborough Sheriff Dept., Metro Traffic, Contractors, FL DOT, FL Highway Patrol	

Table 5 - Electronic Toll Collection Systems

Metropolitan Area	Operation Name	Participating Organizations	Coverage Area	Antennae Location	In-Vehicle Equipment	General Comments
Atlanta, GA	Georgia 400 Extension	Georgia DOT	GA 400	Focused Beam, Overhead	IC Card	
Miami, FL	Broad Causeway	Town of Bay Harbor Islands	Broad Causeway	Roadside	Bar Code	
Miami, FL	Florida Turnpike	Florida DOT - District 8/Turnpike	Florida Turnpike	To be Determined	To be Determined	
Miami, FL	Rickenbacker Causeway	Dade County Public Works	Rickenbacker Causeway	Overhead	Tag Based: Amtech	
Miami, FL	Venetian Causeway	Dade County Public Works	Venetian Causeway	Overhead	Tag Based: Amtech	
Orlando, FL	Florida Turnpike	Florida DOT	Florida Turnpike	To be Determined	To be Determined	
Orlando, FL	SR 408	Orlando - Orange County Expressway Authority	SR 408	In-Pavement	Tag Based: Mark IV	
Orlando, FL	SR 417	Florida DOT	SR 417	In-Pavement	Tag Based: Mark IV	
Orlando, FL	SR 528	Florida DOT, Orlando - Orange County Expressway Authority	SR 528	In-Pavement	Tag Based: Mark IV	
Tampa, FL	Florida Turnpike	Florida DOT - District 8/Turnpike	Florida Turnpike	To be Determined	To be Determined	
West Palm Beach, Boca Raton, Delray, Fl	Florida Turnpike	Florida DOT - District 8/Turnpike	Florida Turnpike	To be Determined	To be Determined	

Region 5

Table 1 - Traffic Signal Control Systems

Metropolitan Area	Jurisdiction	# of Centrally Controlled Signals	Traffic Information Collection										Means of Comm.				Means of Control			System Software					System Operation				General Comments
			CCTV	Call Boxes	Inductive Loops	Video Detection	Aircraft	Service Patrols	Cell-Phone	Vehicle Probes	CB Radio	Other	Coaxial Cable	Fiber Optic	Microwave	Other	NEMA	170	Other	ATC	SCOOT	SCATS	UTCS	Other	Special Events	Time of Day	Traff. Responsive	Vehicle Preemption	
Chicago, IL	IDOT	1068																				X			X	X	X	X	Awaiting Survey Response
Cincinnati, OH	City of Cincinnati	80			X								X	X			X					X				X			
Columbus , OH	City of Columbus	400			X							X	X				X					X	X		X	X	X		Radar Detector, Closed Loop Distributed
Dayton, OH	City of Dayton	340			X								X				X						X		X	X	X		Closed Loop Distributed
Dayton, OH	City of Kettering	72			X							X	X		X		X						X		X	X		X	Smartways
Detroit, MI	Oakland County		X		X	X							X				X					X	X		X		X	X	Eagle
Grand Rapids, MI	City of Grand Rapids	230			X								X				X						X		X	X	X	X	
Minneapolis, MN	City of St. Paul	340	X		X								X	X			X						X		X	X	X	X	

Metropolitan Area	Jurisdiction	# of Centrally Controlled Signals	Traffic Information Collection										Means of Comm.				Means of Control			System Software					System Operation				General Comments
			CCTV	Call Boxes	Inductive Loops	Video Detection	Aircraft	Service Patrols	Cell-Phone	Vehicle Probes	CB Radio	Other	Coaxial Cable	Fiber Optic	Microwave	Other	NEMA	170	Other	ATC	SCOOT	SCATS	UTCS	Other	Special Events	Time of Day	Traff Responsive	Vehicle Preemption	
Minneapolis, MN	Minneapolis Traffic Engineering	790	X		X	X						X	X				X		X					X	X	X	X	X	Electro-Mechanical, T2000C, Radar Detection
Toledo, OH	City of Toledo Division of Transportation	540			X								X		X		X		X						X	X			

Table 2 – Freeway Management Systems

Metropolitan Area	Operation Name	Operator	Coverage Area	Ramp Metering	Traffic Detection & Verification								Motorist Information					General Comments
					Operation Center	Service Patrols	Inductive Loops	CCTV	CB-Radio	Cell-Phone	Call Boxes	Other	Alt. Routes	HAR	Media	VMS	Other	
Chicago, IL	IDOT Traffic Systems Center	IL DOT	136 centerline miles	Yes	X	X	X		X	X				X	X	X	X	Personal Computer via Modem, Telephone Info Number
Chicago, IL	INDOT Traffic Management Center	INDOT	I-80, I-94	None	X	X	X	X	X	X		X	X		X			Vehicle Probes
Cincinnati, OH	Cincinnati ARTMIS	TRW, KY DOT, ODOT	I-71, I-75, I-77, I-275, SR-562, and Cross County	None	X	X		X		X		X	X	X	X	X	X	Surveillance Aircraft, Vehicle Probes, Scanners, WWW Home Page
Columbus, OH	Columbus Freeway Operations Center	City of Columbus	I-71, I-70, I-270, I-670, SR-325, SR-104, US 33	Yes	X			X			X			X				
Detroit, MI	Michigan Intelligent Transportaton Systems Center	MI DOT	I-75, I-94, M-10	Yes	X	X	X	X								X		

Metropolitan Area	Operation Name	Operator	Coverage Area	Ramp Metering	Traffic Detection & Verification								Motorist Information					General Comments
					Operation Center	Service Patrols	Inductive Loops	CCTV	CB-Radio	Cell-Phone	Call Boxes	Other	Alt Routes	HAR	Media	VMS	Other	
Milwaukee, WI	Monitor Traffic Operations Center	Wisconsin DOT, Milwaukee Co. Highway Dept., Milwaukee Co. Sheriff's Dept.	I-43, I-94, I-794, US 45, US 41	Yes	X		X	X				X			X	X	X	Microwave Detectors, Video Imaging Detectors, FAX Service to Media, Personal Computer via Modem, Telephone Information Number
Minneapolis, MN	MN/DOT Traffic Management Center		I-94, I-35, US212, US169, SR5, SR36, SR62, SR77, SR100	Yes	X	X	X	X		X	X	X		X	X	X		Aircraft, Autoscope

Table 3 - Advanced Public Transportation Systems

Metropolitan Area	Transit Operator	# of Buses w/ ITS Tech.	Transit Vehicle Technology						Traveler Services						Rail System	General Comments
			AVL	On Board Display	2 Way Data Comm	Transit Opers. Software	Automated Disp	Other	Passenger Info Sys.	Ride Share Info.	Reservation & Billing Sys.	Integrated Fare Media	Electronic Payment	Other		
Chicago, IL	Chicago Transit Authority	2080														Installation of Bus Service Management System will begin March 1996
Chicago, IL	PACE	600						X								Automatic Passenger Counters
Cincinnati, OH	Southwest Ohio Regional Transit Authority (SORTA)	379				X										Kiosks, Passenger Info System in design phase AVL, Two-way Data Communications in design phase
Cleveland, OH	Laketran	17														AVL, two-way data communications, and passenger information is in design phase
Columbus, OH	Central Ohio Transit Authority	349					X						X			Automatic Passenger Counters, Telephone Information Number
Detroit, MI	Ann Arbor Transportation Authority	80														AVL, Two-Way Data, Operators Software, Automated Dispatch under consturction. Electronic Payment, Fare Media, and Reservation system under construction.

Metropolitan Area	Transit Operator	# of Buses w/ ITS Tech.	Transit Vehicle Technology						Traveler Services						Rail System	General Comments
			AVL	On Board Display	2 Way Data Comm	Transit Opers. Software	Automated Disp	Other	Passenger Info Sys	Ride Share Info.	Reservation & Billing Sys.	Integrated Fare Media	Electronic Payment	Other		
Detroit, MI	City of Detroit Department of Transportation	513														Automated Telephone Help Service under construction. Currently writing RFP for upgrading system.
Detroit, MI	Suburban Mobility Authority for Regional Transit (SMART)	400					X									AVL, Silent Alarm, Two-Way Data under construction. Kiosks in design phase.
Milwaukee, WI	Milwaukee County Transit System	540	X		X	X		X								Silent Alarm System
Minneapolis, MN	Metropolitan Council Transit Operations	900	X		X	X		X	X	X						

Table 4 - Incident Management Programs

Metropolitan Area	Operation Name	Coverage Area	Participating Organizations	General Comments
Chicago, IL	Hoosier Helpers	I-80, I-94 from IN/IL State Line to I-90	Chicago ATMS System, Indiana DOT	
Chicago, IL	Illinois Emergency Traffic Patrol ("Minutemen")	I-90, I-94, I-190, I-290, I-55, I-80	Illinois DOT	
Columbus, OH	Incident Response Team	Columbus Metro Area	Columbus Police, City of Columbus - Engineering and Construction, City of Columbus - Traffic Engineering	
Detroit, MI	Michigan Intelligent Transportation System Center	Southeast Michigan Freeways	Michigan Emergency Patrol, Road Commision for Oakland County, City of Troy, City of Detroit, Michigan State Police, Michigan DOT	
Detroit, MI	FAST-TRAC	Oakland County		
Milwaukee, WI	Milwaukee		Milwaukee County Sheriff	Plans to develop *911 system
Minneapolis, MN	Twin Cities Metropolitan Area Incident Management Program	I-94, I-35, US212, US169, SR5, SR36, SR62, SR77, SR100		

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Table 5 - Electronic Toll Collection Systems

Metropolitan Area	Operation Name	Participating Organizations	Coverage Area	Antennae Location	In-Vehicle Equipment	General Comments
Chicago, IL	East-West Tollway	Illinois State Toll Highway Authority	I-88 from US-80 to I-290			Electronic Toll Collection on 50% of total mileage
Chicago, IL	Indiana East-West Toll	Indiana DOT	I-90	To Be Determined	To Be Determined	Currently in design
Chicago, IL	North-South Tollway	Illinois State Toll Highway Authority	I-355	Overhead	Tag Based: AT Comm	
Chicago, IL	Tri-State Tollway	Illinois State Toll Highway Authority	I-94, I-294, I-80	Overhaed	Tag Based: AT Comm	50% of total mileage covered
Cleveland, OH	Ohio Turnpike	Ohio Turnpike Commission	I-80, I-90			Awaiting Survey Response
Detroit, MI	Ambassador Bridge	Detroit International Bridge Authority	Ambassador Bridge	Overhead	Type 3 Transponder	In design phase
Detroit, MI	Windsor Tunnel	Detriot & Canada Tunnel Corporation	Winsor Tunnel (SR-3)	In-Pavement	Tag Based: Mark IV	In design phase
Youngstown, OH	Ohio Turnpike	Ohio Turnpike Authority	I-76 from junction of I-80 east to Pennsylvania line			Awaiting Survey Response

Region 6

Table 1 - Traffic Signal Control Systems

Metropolitan Area	Jurisdiction	# of Centrally Controlled Signals	Traffic Information Collection										Means of Comm.				Means of Control			System Software					System Operation				General Comments
			CCTV	Call Boxes	Inductive Loops	Video Detection	Aircraft	Service Patrols	Cell-Phone	Vehicle Probes	CB Radio	Other	Coaxial Cable	Fiber Optic	Microwave	Other	NEMA	170	Other	ATC	SCOOT	SCATS	UTCS	Other	Special Events	Time of Day	Traff Responsive	Vehicle Preemption	
Austin, TX	City of Austin	627			X								X					X							X	X		X	Wapitti
Dallas/ Fort Worth, TX	City of Dallas	500			X							X	X	X	X		X	X							X	X	X	X	Bitrans, ESCORT Sonex, Microwave Radio
Dallas / Fort Worth , TX	City of Fort Worth	240	X		X								X				X								X	X			Closed Loop Distributed, Quicknet 4
Dallas / Fort Worth, TX	City of Garland	104			X								X				X								X	X		X	Zone Monitor IV: Econolite
Dallas / Fort Worth, TX	City of Irving																												Awaiting Survey Response
Dallas / Fort Worth, TX	City of Plano	96			X								X					X							X	X		X	RMEA
Dallas / Fort Worth, TX	City of Richardson	96			X								X				X								X	X		X	Naztec control software under construction
El Paso, TX	City of El Paso	263			X								X				X	X						X	X	X	X		

Metropolitan Area	Jurisdiction	# of Centrally Controlled Signals	Traffic Information Collection										Means of Comm.				Means of Control			System Software					System Operation				General Comments
			CCTV	Call Boxes	Inductive Loops	Video Detection	Aircraft	Service Patrols	Cell-Phone	Vehicle Probes	CB Radio	Other	Coaxial Cable	Fiber Optic	Microwave	Other	NEMA	170	Other	ATC	SCOOT	SCATS	UTCS	Other	Special Events	Time of Day	Traff. Responsive	Vehicle Preemption	
Little Rock, AR	City of Little Rock	123			X								X				X		X				X		X	X		X	Honeywell 1000
New Orleans, LA	City of New Orleans	38	X		X							X	X	X			X	X	X					X	X	X	X	X	
Oklahoma City, OK	Oklahoma City Traffic Control Center				X							X	X	X			X								X	X		X	
San Antonio, TX	City of San Antonio				X													X						X	X	X	X	X	QUICNET
Tulsa, OK	City of Tulsa	90			X								X				X	X					X		X	X	X		

Table 2 - Freeway Management Systems

Metropolitan Area	Operation Name	Operator	Coverage Area	Ramp Metering	Traffic Detection & Verification								Motorist Information					General Comments
					Operation Center	Service Patrols	Inductive Loops	CCTV	CB-Radio	Cell-Phone	Call Boxes	Other	Alt. Routes	HAR	Media	VMS	Other	
Dallas / Fort Worth, TX	TXDOT Satellite Operations Center (SOC)	TX DOT - Fort Worth			X	X	X	X								X		
Dallas/ Fort Worth, TX	Transportation Management Satellite - Dallas					X	X	X	X			X	X	X	X	X		Under Construction
El Paso, TX	El Paso Freeway Management Center	TX DOT - El Paso	I-10, US 54, I-375	None	X	X	X									X		Ramp Meters, CCTV in Design Phase
Houston, TX	TranStar	Harris County, City of Houston, METRO Transit, TXDOT, TRS		Yes	X	X	X	X	X	X		X			X	X	X	Video Imaging Detectors, Roadside Mounted Radar, Information Kiosks, Information available on Internet
San Antonio, TX	TransGuide	TX DOT	I-10, I-35, US 281	None	X	X	X	X				X			X	X	X	Sonic Detectors, Low Power Television, Internet Home Page. HAR and Kiosks in Design phase

**Table 3 - Advanced Public Transportation Systems**

Metropolitan Area	Transit Operator	# of Buses w/ ITS Tech.	Transit Vehicle Technology						Traveler Services						Rail System	General Comments
			AVL	On Board Display	2 Way Data Comm	Transit Opers Software	Automated Disp	Other	Passenger Info Sys	Ride Share Info	Reservation & Billing Sys	Integrated Fare Media	Electronic Payment	Other		
Dallas / Fort Worth, TX	Dallas Area Rapid Transit (DART)	1300	X				X	X								Silent Alarm System
El Paso, TX	Sun Metro	222														AVL, Computer Dispatch, Silent Alarm in design phase
Houston, TX	Houston Metro	1200														AVL, Computer Dispatch, Silent Alarm, Kiosks, and Passenger Info System in design phase
San Antonio, TX	VIA	529	X		X	X										Kiosks in design phase

Table 4 - Incident Management Programs

Metropolitan Area	Operation Name	Coverage Area	Participating Organizations	General Comments
Austin, TX	Courtesy Patrol	To be determined	TX DOT	Will be implemented in 1997
Dallas / Fort Worth, TX	Courtesy Patrol - Fort Worth	I-820, I-30, I-35W, US-287, I-20, SH-183, SH-360	Tarrent County Sheriff Department, Texas Department of Public Safety, Arlington Police Department, Fort Worth Police Department, TX DOT Incident Management	
Dallas/ Fort Worth, TX	Dallas Area Incident Management Program	Dallas County	TxDOT, Dallas Police Dept., Dallas County and other Police Depts.	
Houston, TX	Motorist Assistance Program (MAP)			Awaiting Survey Response
San Antonio, TX	TransGuide - Courtesy Patrol	San Antonio Metro Area	911, San Antonio Fire/EMS, San Antonio Police, TX DOT	No documented procedure for Incident Management Police will have full dispatch from TransGuide.

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Table 5 - Electronic Toll Collection Systems

Metropolitan Area	Operation Name	Participating Organizations	Coverage Area	Antennae Location	In-Vehicle Equipment	General Comments
Dallas / Fort Worth, TX	Dallas North Tollway	Texas Turnpike Authority	I-35E to I-70	Overhaed	Tag Based Amtech	
Houston, TX					Tag Based Amtech	Awaiting Survey Response
New Orleans, LA	Crescent City Connection	Louisiana Department of Transportation and Development	US 90	Roadside	Tag Based: Amtech	
New Orleans, LA	Lake Pontchartrain Causeway	Greater New Orleans Expressway Commission	Lake Pontchartrain Causeway	Roadside	Tag Based· Amtech	
Oklahoma City, OK	H E Bailey Turnpike	Oklahoma Turnpike Authority	US 62, SR 26, US 70	Overhead	Tag Based: Amtech	
Oklahoma City, OK	Kilpatrick Turnpike	Oklahoma Turnpike Authority	I-35	Overhead	Tag Based. Amtech	
Oklahoma City, OK	Turner Turnpike	Oklahoma Turnpike Authority		Overhead	Tag Based: Amtech	
Tulsa, OK	Creek Turnpike	Oklahoma Turnpike Authority	US 75 to US 64	Overhead	Tag Based. Amtech	
Tulsa, OK	Muskogee Turnpike	Oklahoma Turnpike Authority	SR 51 to SR 165	Overhead	Tag Based Amtech	
Tulsa, OK	Will Rogers Turnpike	Oklahoma Turnpike Authority	Tulsa to Missouri State Line	Overhead	Tag Based: Amtech	
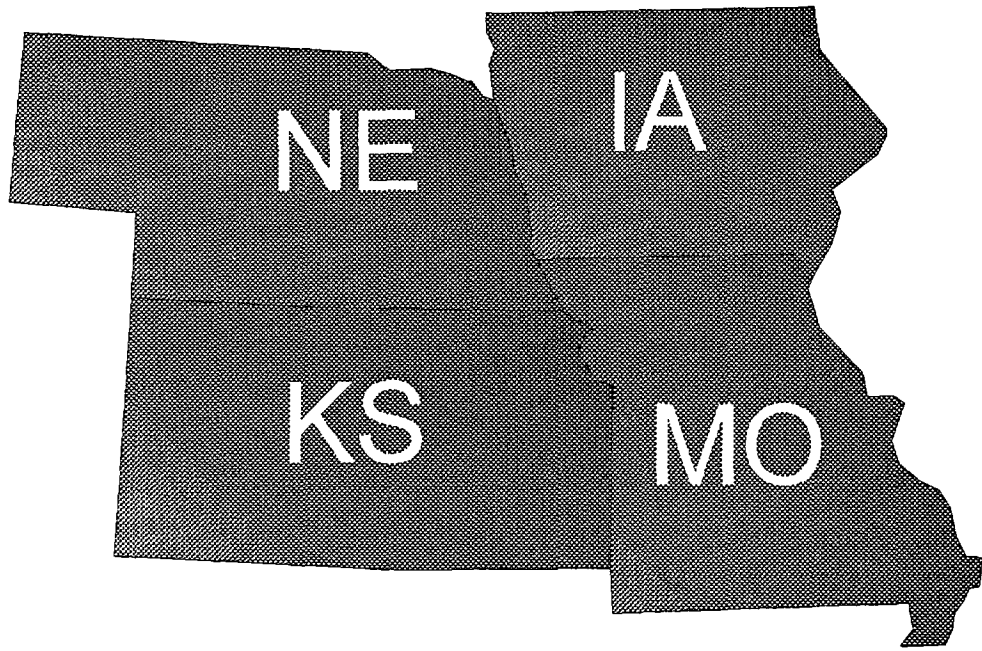
Region 7

Table 1 - Traffic Signal Control Systems

Metropolitan Area	Jurisdiction	# of Centrally Controlled Signals	Traffic Information Collection										Means of Comm.				Means of Control			System Software					System Operation				General Comments
			CCTV	Call Boxes	Inductive Loops	Video Detection	Aircraft	Service Patrols	Cell-Phone	Vehicle Probes	CB Radio	Other	Coaxial Cable	Fiber Optic	Microwave	Other	NEMA	170	Other	ATC	SCOOT	SCATS	UTCS	Other	Special Events	Time of Day	Traff. Responsive	Vehicle Preemption	
Kansas City, MO	City of Lenexa, KS	25	X		X									X				X							X	X		X	Translink
Kansas City, MO	City of Overland Park, KS	94			X								X					X							X	X		X	WAPITI/D.M.
Omaha, NE	City of Omaha	500			X							X						X							X	X	X	X	WAPITI/D.M., Radar

Table 2 – Freeway Management Systems

Metropolitan Area	Operation Name	Operator	Coverage Area	Ramp Metering	Traffic Detection & Verification								Motorist Information					General Comments
					Operation Center	Service Patrols	Inductive Loops	CCTV	CB-Radio	Cell-Phone	Call Boxes	Other	Alt Routes	HAR	Media	VMS	Other	
St. Louis, MO	MHTD Traffic Center	Missouri Highway and Transp. Dept	I-64/US 40, I-270, I-70, I-44, I-55, I-170 134 Miles Total	None		X		X		X	X	X		X		X	X	Video Imaging Detectors. Center expected to be completed in 1997

Table 3 – Advanced Public Transportation Systems

Metropolitan Area	Transit Operator	# of Buses w/ ITS Tech.	Transit Vehicle Technology						Traveler Services						Rail System	General Comments
			AVL	On Board Display	2 Way Data Comm.	Transit Opers. Software	Automated Disp.	Other	Passenger Info Sys.	Ride Share Info.	Reservation & Billing Sys.	Integrated Fare Media	Electronic Payment	Other		
Kansas City, MO	Kansas City Area Transit Authority	250	X		X			X							No	Silent Alarm System. Kiosks and Passenger Information Systems in design phase.

Table 4 - Incident Management Programs

Metropolitan Area	Operation Name	Coverage Area	Participating Organizations	General Comments
Kansas City, MO	Kansas City Regional Incident Management Coalition	I-70, I-35, I-435, US 71	City of Independence MO, Kansas State Police, Missouri Highway Patrol, City of Kansas City KS, City of Kansas City MO, Kansas DOT, Missouri Highway and Transportation Department	
St. Louis, MO	St. Louis Regional Incident Management Coalition	I-55, I-270, I-70, I-170, I-64/US 40, I-44	St Louis County Police Dept, St Louis County Dept Of Highways and Traffic, FHWA - Illinois Division, Auto Club of Missouri, FHWA - Missouri Division, Kirkwood Fire Dept, City of St. Louis, Illinois DOT - District 8, Missouri Highway and Transportation Dept.	Will utilize technologies of the MHTD Traffic Center

Table 5 - Electronic Toll Collection Systems

Metropolitan Area	Operation Name	Participating Organizations	Coverage Area	Antennae Location	In-Vehicle Equipment	General Comments
Kansas City, MO	Kansas Turnpike	Kansas Turnpike Authority	14.9 Miles from Bonner Springs, KS to Kansas City, KS	Overhead	Tag Based	42,000 to 43,000 in-vehicle transponders in operation on entire turnpike
Wichita, KS	Kansas Turnpike	Kansas Turnpike Authority	I-35, I-135, I-335, I-470, I-70 total of 237.5 miles	Overhead	Tag Based	

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The Next Step for the ITI Deployment Monitoring System

Two Questions arise, now that the FHWA is going to have a nation wide inventory of Intelligent Transportation Infrastructure. The first being: "How are we going to make the information available for public use?" . The second being: "How do we propose to keep such a monitoring system updated with current, useful information?". The solution to both questions is making the ITI Deployment Monitoring System available on the World Wide Web (WWW).

The ITI Deployment Monitoring System WWW home page will have the capability of being accessed by anyone with an Internet connection interested in the information on Intelligent Transportation Systems. The WWW home page will eventually have links leading to and from other transportation and engineering related web sites. The ITI Deployment web site will therefore be very accessible to Transportation Professionals, and Government Officials as well as the general public.

A WWW home page will also establish an avenue of information exchange, which could make the ITI Deployment Monitoring System almost a self maintained database. For example, State and City DOT officials would not want to "short-change" themselves when it comes to the scope of ITI their state or city has operational. The incentive is there for State and City DOTs to give us the necessary information via the Internet to maintain such a deployment monitoring system.