Metropolitan Intelligent Transportation Systems (ITS) Infrastructure 2004 Public Safety (Fire Rescue) Survey

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Section I

FLEET CHARACTERISTICS

Please enter the current information for 2004 and the current estimate for 2005 in the boxes provided. We have entered the information your agency provided in 2002 to assist you.

	2002 Response	2005 Estimate in 2002	2004 Response	2005 Estimate
1. Total number of emergency response vehicles operated:				
2. Total number of emergency response vehicles equipped with on-board navigation capability (i.e., digital map):				
3. Total number of emergency response vehicles under a computer-aided dispatch system (CAD):				
4. Total number of emergency response vehicles with traffic signal system communications (i.e., signal preemption):				
5. Total number of emergency response vehicles with Automatic Vehicle Location (AVL)				

TRAFFIC INCIDENT MANAGEMENT TEAM

6. Does your agency participate in a team that meets on a regular basis to evaluate and improve coordinated incident response and to address traffic problems as well?

	2002 Response	2004 Response
Yes	☐	☐
No	☐	☐
Don't know	☐	☐

7. Does your agency participate in a formal multi-agency regional or statewide program to coordinate management of traffic incidents that contains all of the following elements?

Strategic Planning - A mutually agreed to statement of multi-agency program goals and measurable objectives.

Program Plan - A multi-year, multi-agency program plan that maps out the process toward meeting program goals and identifying initiatives, tasks and funding sources.

Annual Work Plan - A plan of tasks, projects, or initiatives for participating agencies to be done during the current year with funding secured.

Yes ☐
No ☐
Don't know ☐

8. Does your agency participate in a statewide disaster planning program?

Yes ☐
No ☐
Don't know ☐

Section II

TRAFFIC INCIDENT MANAGEMENT:

9. With what types of agencies does your agency electronically share real-time and/or after-the-fact reporting information on traffic incidents?

Real-Time Data	After-The-Fact Data	
☐	☐	Other Fire/Rescue agencies
☐	☐	Law enforcement agencies (local)
☐	☐	Law enforcement agencies (state)
☐	☐	Transportation agencies (local)
☐	☐	Transportation agencies (state)
☐	☐	Other
☐	☐	Do not electronically exchange information
☐	☐	Do not know

10. Has a multi-agency contact list been developed in your area containing the names, phone numbers, pager numbers, and other pertinent information for the appropriate response personnel?

- ☐ Yes
- ☐ No
- ☐ Don't know

11. Is an Incident Management (Incident Command) System used on-scene to manage traffic incidents?

- ☐ Yes, specified by state law
- ☐ Yes, through agreement
- ☐ No
- ☐ Don't know

12. Is there a legal specification by state law or formal agreement as to who is in charge at the scene of a traffic incident (Incident Commander)?

- ☐ Yes.who?
- ☐ No
- ☐ Don't know

13. Has a plan been developed and adopted by responding agencies for staging and parking response vehicles and equipment at a traffic incident site in a manner that minimizes lane blockage and facilitates the re-opening of lanes?

- ☐ Yes
- ☐ No
- ☐ Don't know

14. Are respondents protected through law or court opinion for liability claims for damages to vehicles or cargoes during clearance activities so long as the removal was not done in a careless or grossly negligent manner?

- ☐ Yes
- ☐ No
- ☐ Legislation or action being planned
- ☐ Don't know

15. Are there any policies and procedures to facilitate quick removal of heavily damaged vehicles and non-hazardous cargoes in your metropolitan area?

- ☐ Yes, please briefly describe the policy or procedures

- ☐ No
- ☐ Don't know

TRAFFIC INCIDENT MANAGEMENT (Cont.):

16. What agency usually directs traffic on-scene at major traffic incidents in your area?

- ☐ Law enforcement
- ☐ Fire and rescue
- ☐ Transportation
- ☐ Auxiliary or reserves (fire or police)
- ☐ Don't know

17. Are on-scene responders to traffic incidents from your agency familiar with standards for traffic control specified in the Manual on Uniform Traffic Control Devices (MUTCD)?

- ☐ Yes
- ☐ No
- ☐ Don't know
- ☐ Don't know about MUTCD

OPERATIONS

18. Can you respond to emergencies, when required, without lights and siren using signal preemption?

- ☐ Yes
- ☐ No

19. How do you interface with traffic management?

- ☐ Face to face (co-located)
- ☐ Voice communication
- ☐ Data communication (compatible CAD, use of eXtensive Markup Language (XML) standards for web)
- ☐ Multimedia includes video sharing
- ☐ Other (please specify) _____
- ☐ Do not interface with traffic management

20. Do you have access to Automatic Collision Notification (ACN) data?

- ☐ Yes, which type?
  - ☐ Commercial systems (e.g., Onstar)
  - ☐ Advanced ACN (crash severity data)
  - ☐ Other (please specify) _____
- ☐ No

21. Do your ambulances have telemedicine capability?

- ☐ Yes, which type?
  - ☐ Data to hospital
  - ☐ Voice to hospital
  - ☐ Video to hospital
  - ☐ Other (please specify) _____
- ☐ No
- ☐ Do not have ambulances

22. Are operators answering emergency calls trained in Emergency Medical Dispatch (EMD) procedures?

- ☐ Yes
- ☐ No

23. Have you developed technical standards and procedures, and legal and ethical guidelines for telemedicine and advanced ACN

- ☐ Yes
- ☐ No

DISPATCH

24. Do you track vehicle location with AVL to aid CAD?

- ☐ Yes
- ☐ No
- ☐ Do not have CAD

25. Which agencies is your CAD interoperable with?

- ☐ Other Police
- ☐ Other Fire/rescue
- ☐ Traffic management
- ☐ CAD is not interoperable
- ☐ Do not have CAD

26. Can you share AVL data with other CAD systems?

- ☐ Yes
- ☐ No
- ☐ Do not have CAD and/or AVL

27. Do you get weather information to help in planning dispatch?

- ☐ Yes
- ☐ No

28. How do you compute travel time and distance?

- ☐ Direct (as the crow flies) distance
- ☐ Route distance
- ☐ Historic traffic info on route
- ☐ Real time info on traffic on route
- ☐ Other (please specify) _____
- ☐ Do not compute travel time and distance

NATIONAL ITS STANDARDS

29. Please check the ITS standards that you are using (deployed or in current RFP) or considering (assessing for use) in your operational emergency management systems. The U.S. DOT ITS Standards Program recognizes that there may be other ITS standards surveys being conducted by other entities. If this is the case, please pardon any overlap; however, your input to these surveys will help the U.S. DOT ITS Standards Program better serve your needs and requirements. If no standards are used, skip to the question 32.

List of standards to consider when deploying emergency management projects:

Traffic Management

Using	Considering	
☐	☐	NTCIP 1202 - Object Definitions for Actuated Traffic Signal Controller Units
☐	☐	NTCIP 1210 - Objects for Signal Systems Master
☐	☐	NTCIP 1211 - Objects for Signal Control Priority

Freeway Management

Using	Considering	
☐	☐	NTCIP 1203 - Object Definitions for Dynamic Message Signs
☐	☐	NTCIP 1204 - Object Definitions for Environmental Sensor Stations
☐	☐	NTCIP 1205 - Objects for CCTV Camera Control
☐	☐	NTCIP 1206 - Object Definitions for Data Collection and Monitoring (DCM) Devices
☐	☐	NTCIP 1207 - Object Definitions for Ramp Meter Control
☐	☐	NTCIP 1208 - Object Definitions for Video Switches

NATIONAL ITS STANDARDS (Cont.)

Using Considering

- ☐ ☐ NTCIP 1209 - Object Definitions for Transportation Sensor System
- ☐ ☐ NTCIP 1213 - Electrical and Lighting Mgmt System Interoperability & Intercommunications Std
- ☐ ☐ NTCIP 1301 - Weather Report Message Set for ESS

Advanced Transportation Controller

Using Considering

- ☐ ☐ ITE 9603-1 - Application Programming Interface (API) Standard for the Advanced Transportation Controller (ATC)
- ☐ ☐ ITE 9603-2 - Advanced Transportation Controller (ATC) Cabinet
- ☐ ☐ ITE 9603-3 - Advanced Transportation Controller (ATC) Standard Specification for the Type 2070 Controller

Profiles and Base Standards

Using Considering

- ☐ ☐ NTCIP 1201 - Global Object Definitions
- ☐ ☐ NTCIP 1102 - Octet Encoding Rules (OER)
- ☐ ☐ NTCIP 1103 - Transportation Management Protocol
- ☐ ☐ NTCIP 1104 - CORBA Naming Convention Specification
- ☐ ☐ NTCIP 1105 - CORBA Security Service Specification
- ☐ ☐ NTCIP 1106 - CORBA Near-Real Time Data Service Specification
- ☐ ☐ NTCIP 2101 - Point to Multi-Point Protocol Using RS-232 Subnetwork Profile
- ☐ ☐ NTCIP 2102 - Subnetwork Profile for PMPP using FSK Modems
- ☐ ☐ NTCIP 2103 - Subnet Profile for Point-to-Point Protocol using RS 232
- ☐ ☐ NTCIP 2104 - Subnetwork Profile for Ethernet
- ☐ ☐ NTCIP 2201 - Transportation Transport Profile
- ☐ ☐ NTCIP 2202 - Transport Profile for Internet (TCP/IP and UDP)
- ☐ ☐ NTCIP 2301 - Application Profile for Simple Transportation Management Framework (STMF)
- ☐ ☐ NTCIP 2302 - Application Profile for Trivial File Transfer Protocol
- ☐ ☐ NTCIP 2303 - Application Profile for File Transfer Protocol (FTP)
- ☐ ☐ NTCIP 2304 - Application Profile for Data Exchange ASN.1 (DATEX)
- ☐ ☐ NTCIP 2305 - Application Profile for Common Object Request Broker Architecture (CORBA)
- ☐ ☐ NTCIP 8003 - Profiles - Framework and Classification of Profiles
- ☐ ☐ NTCIP 9010 - XML Standard for Center-to-Center Communications
- ☐ ☐ IEEE P1488 - IEEE Standard for Message Set Template for Intelligent Transportation Systems
- ☐ ☐ IEEE P1489 - IEEE Standard for Data Dictionaries for Intelligent Transportation Systems - Part 1 Functional Area Data Dictionaries

Center-to-Center Communications

Using Considering

- ☐ ☐ ITE TM 1.03 - Standard for Functional Level Traffic Management Data Dictionary (TMDD)
- ☐ ☐ ITE TM 2.01 - Message Sets for External TMC Communication (MS/ETMCC)
- ☐ ☐ NTCIP 1602 - Generic Reference Model for C2C Communications

Incident Management

Using Considering

- ☐ ☐ IEEE 1512-2000 Standard for Common Incident Management Message Sets for use by Emergency Management Centers
- ☐ ☐ IEEE P1512.1 - Standard for Traffic Incident Management Message Sets for Use by EMCs
- ☐ ☐ IEEE P1512.2 - Standard for Public Safety Incident Management Message Sets for Use by EMCs

NATIONAL ITS STANDARDS (Cont.)

Using	Considering	
☐	☐	IEEE 1512.3-2000 - Standard for Hazardous Material Incident Management Message Sets for Use by Emergency Management Centers
☐	☐	IEEE 1512.4 - Standard for Emergency Management to Emergency Vehicle Subsystems Use by Emergency Management Centers
☐	☐	IEEE P1556 - Standard for Security and Privacy of Vehicle/Roadside Communication Including Smart Card Comm.

Advanced Traveler Information System

Using	Considering	
☐	☐	SAE J2354 - Message Set for Advanced Traveler Information System (ATIS)
☐	☐	SAE J2540-2 - ITIS Phrase Lists (International Traveler Information Systems)
☐	☐	SAE J2630 - Converting ATIS Message Standards from ASN.1 to XML

Transit

Using	Considering	
☐	☐	APTA - TCIP Dialogs
☐	☐	NTCIP 1400 - TCIP - Framework Standard
☐	☐	NTCIP 1401 - TCIP - Common Public Transportation (CPT) Business Area Standard
☐	☐	NTCIP 1402 - TCIP - Incident Management (IM) Business Area Standard
☐	☐	NTCIP 1403 - TCIP - Passenger Information (PI) Business Area Standard
☐	☐	NTCIP 1404 - TCIP - Scheduling/Runcutting (SCH) Business Area Standard
☐	☐	NTCIP 1405 - TCIP - Spatial Representation (SP) Business Area Standard
☐	☐	NTCIP 1406 - TCIP - Onboard (OB) Business Area Standard
☐	☐	NTCIP 1407 - TCIP - Control Center (CC) Business Area Standard
☐	☐	NTCIP 1408 - TCIP - Fare Collection (FC) Business Area Standard

Commercial Vehicle Operations

Using	Considering	
☐	☐	ANSI TS284 - Commercial Vehicle Safety Reports
☐	☐	ANSI TS285 - Commercial Vehicle Safety and Credentials Information Exchange
☐	☐	ANSI TS286 - Commercial Vehicle Credentials

Dedicated Short Range Communications

Using	Considering	
☐	☐	IEEE 1609.1 - Standard for Dedicated Short Range Communications (DSRC) Resource Manager
☐	☐	IEEE 1609-2 - Standard for Dedicated Short Range Communications (DSRC) Application Layer
☐	☐	IEEE 1609.3 - Standard for IP Interface for Dedicated Short Range Communications (DSRC)
☐	☐	IEEE 1609.4 - Standard for Dedicated Short Range Communications (DSRC) Medium Access Control (MAC) Layer
☐	☐	E2213-02 Standard Specification for Telecommunications and Information Exchange Between Roadside and Vehicle Systems - 5 GHz Band Dedicated Short Range Communications (DSRC) Medium Access Control (MAC) and Physical Layer (PHY) Specifications
☐	☐	SAE J2xxx - Standard for Data Dictionary and Message Sets for Dedicated Short Range Communications (DSRC)
☐	☐	E2158-01 Standard Specification for Dedicated Short Range Communication (DSRC) Physical Layer using Microwave in the 902 to 928 MHz Band
☐	☐	ASTM E17.54.00.1 - Standard Guidelines for Archiving ITS-Generated Data
☐	☐	PS 105-99: Standard Provisional Specification for Dedicated Short Range Communication (DSRC) Data Link Layer

Archived Data User Service (ADUS)

Using	Considering	
☐	☐	ASTM E2259-03 -Standard Guidelines for Archiving
☐	☐	ASTM E-17.54.02.1 Standard Specifications for Metadata Content for ITS-Generated Data
☐	☐	ASTM E-17.54.02.2 Standard Specifications for Archiving ITS-Related Traffic Monitoring Data

Location Referencing

Using	Considering	
☐	☐	SAE J2266 - Location Referencing Message Specification

30. What factors helped your agency decide to use ITS standards? Please pick top three factors, check only one item in each column.

1	2	3	
☐	☐	☐	Options offered in the standards
☐	☐	☐	Products employ standards
☐	☐	☐	Regional architecture document requirements
☐	☐	☐	Additional funding provided
☐	☐	☐	Integration opportunities
☐	☐	☐	Consultant or integrator’s recommendation
☐	☐	☐	My agency's participation on standard committees
☐	☐	☐	Training and Technical Assistance support provided by US DOT
☐	☐	☐	Responding to the rule to use ITS Standards
☐	☐	☐	Compliance testing is readily available

31. Do you feel that using the standards helped with the integration needs for your agency? Please list project name(s) next to each option.

Absolutely

Somewhat

Not exactly

32. If no ITS standards are currently used, what factors will ensure that your agency uses ITS standards? Please pick top three factors, check only one item in each column (if your are using standards, please move to the next question).

1	2	3	
☐	☐	☐	We are already committed to using standards when they are complete
☐	☐	☐	Vendors provide standard-compliant products
☐	☐	☐	Standards being accepted by the ITS community and being used in deployments
☐	☐	☐	Training and technical support being provided to my agency
☐	☐	☐	Standards are developed that apply to my system
☐	☐	☐	Additional funding being provided to use the standards
☐	☐	☐	Standards use enables interoperability of systems
☐	☐	☐	Other:

33. What tool, resource, or support mechanism was/would be most helpful for implementing the standards? Please pick top three, check only one item in each column.

1	2	3	
☐	☐	☐	Training courses
☐	☐	☐	Published standards provided for free
☐	☐	☐	Published standards are easily available
☐	☐	☐	Support documents (i.e. procurement and implementation guides) are available
☐	☐	☐	Workshops
☐	☐	☐	Standards Web site
☐	☐	☐	Standards forum
☐	☐	☐	Software tools to assist with correctly specifying and procuring the standard
☐	☐	☐	E-mail bulletins
☐	☐	☐	Resource documents (i.e., user guides and reference notebooks)
☐	☐	☐	Testing tools
☐	☐	☐	Case studies of other similar projects that used standards successfully
☐	☐	☐	Other:

34. Who can we contact in your agency regarding ITS standards?

Name:

Affiliation:

Phone:

E-mail:

35. May FHWA follow up with this agency contact for possible peer networking?

☐ Yes
☐ No

WEATHER:

36. Does your agency receive weather products tailored to your particular requirements?

☐ Yes
☐ No

EVALUATION:

37. The U.S. DOT is interested in networking with evaluators of Intelligent Transportation Systems (ITS) nationwide. Is there a point of contact in your state for ITS evaluations?

☐ Yes. Please provide the name, e-mail, and phone number

☐ No
☐ Don't know

38. The U.S. DOT ITS JPO actively collects data on the benefits and costs of ITS implementations and makes this information available at the following URL: http://www.benefitcost.its.dot.gov/. Are you aware of any locally produced and funded evaluations that could be added to this national database?

- ☐ Yes. Please provide a point of contact (name, phone number and e-mail) or reference (e.g., URL) for the evaluation report.

- ☐ No
- ☐ Don't know

COST AND BENEFITS:

39. Is your agency willing to share COST information on ITS-related equipment and projects (i.e., capital and O&M cost, project component breakdown, and brief description)? This information will be used to update the ITS JPO sponsored ITS costs database.

- ☐ Yes. Please provide name, phone number, and e-mail of the cost information contact if different from respondent. This person will be contacted for the cost information at a later date.

- ☐ No

40. Is your agency willing to share BENEFITS information from ITS deployments? This information will be used to update the ITS JPO sponsored ITS benefits database.

- ☐ Yes. Please provide name and phone number of the benefits information contact if different from respondent. This person will be contacted for the benefits information at a later date.

- ☐ No