

Metropolitan Intelligent Transportation Systems (ITS)
Infrastructure 2006 Arterial Management Survey

Birmingham

SURVEILLANCE INFRASTRUCTURE

1. Total number of arterial centerline miles with real-time traffic data collection technologies (includes CCTV) used to monitor key transportation facilities for security purposes operated by your agency in this metropolitan area:

CHARACTERISTICS OF SIGNALIZED INTERSECTIONS

	Previous Reponse	2006 Response
2. Total number of signalized intersections operated by your agency	<input type="text"/>	<input type="text"/>
3. Number of signalized intersections operated by your agency under closed loop or central system control	<input type="text"/>	<input type="text"/>
4. Number of signalized intersections operated by your agency that allow for signal preemption for emergency vehicles	<input type="text"/>	<input type="text"/>
5. Number of signalized intersections operated by your agency that allow signal priority for transit vehicles	<input type="text"/>	<input type="text"/>
6. Number of signalized intersections operated by your agency within 200 feet of a highway-rail intersection that adjust signal timing in response to train crossing to avoid vehicle entrapment	<input type="text"/>	<input type="text"/>
7. Total number of signalized intersections with automated photo red light running enforcement	<input type="text"/>	<input type="text"/>
8. Total number of signalized intersections under real-time traffic adaptive control using SCOOT/SCATS or other similar advanced software	<input type="text"/>	<input type="text"/>
9. Total number of signalized intersections with electronic data collection capabilities	<input type="text"/>	<input type="text"/>

LANE MANAGEMENT

10. Total number of arterial High Occupancy Vehicle (HOV) centerline miles equipped with automated lane management technologies (e.g., sensors detecting traffic conditions the use of dynamic message signs and moveable barriers [e.g., gates] to control the operation of HOV facilities) operated by your agency:	<input type="text"/>
11. Total number of arterial reversible lane centerline miles equipped with automated lane management technologies (e.g., traffic sensors and lane control signs used to implement reversible flow lanes) operated by your agency:	<input type="text"/>
12. Total number of arterial centerline miles under congestion pricing and equipped with traffic sensors, electronic payment, or automated enforcement technologies to support the implementation of congestion pricing strategies operated by your agency:	<input type="text"/>
13. Total number of arterial centerline miles equipped with lane control signs, supported by surveillance and detection technologies, to allow the temporary closure of lanes by your agency:	<input type="text"/>
14. Total number of arterial centerline miles equipped with variable speed limit technologies operated by your agency:	<input type="text"/>
15. Total number of arterial centerline miles equipped with lane management measures such as reversible flow lanes and lane control to support emergency evacuations operated by your agency:	<input type="text"/>

HIGHWAY-RAIL INTERSECTIONS

	Previous Reponse	2006 Response
16. Total number of highway-rail intersections	<input type="text"/>	<input type="text"/>
17. Total number of highway-rail intersections under electronic surveillance	<input type="text"/>	<input type="text"/>

18. Does your agency receive information on highway-rail intersections crossing blockages for the purpose of managing incident response?

Previous Reponse

2006 Response Yes No

INFORMATION DISSEMINATION

Previous Reponse	2006 Response
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19. Total centerline miles covered by Highway Advisory Radio (HAR)

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20. Is your Highway Advisory Radio (HAR) used to broadcast arterial incident information?

- Yes
- No

Previous Reponse	2006 Response
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21. Total number of permanent Dynamic Message Signs (DMS) deployed on arterials:

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22. What type of information is displayed on your DMS? (check all that apply)

- Travel time
- Average speed
- Congestion
- Diversions
- Incident information
- Maintenance and construction work site information
- Advisory speed limits
- Weather alerts
- HOV regulatory information
- Information from other states
- Transit operations
- Roadway status
- Special events impacting travel
- Local special events announcements
- Amber alerts
- Public Service Announcements
- Driver safety campaigns
- Parking availability
- Other (please specify):

23. Please check all the methods that your agency uses to distribute information to the public.

	Previous Reponse	2006 Response
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- | | | |
|--|--------------------------|--------------------------|
| Dedicated cable TV: | <input type="checkbox"/> | <input type="checkbox"/> |
| Automated telephone system: | <input type="checkbox"/> | <input type="checkbox"/> |
| Internet Web sites | <input type="checkbox"/> | <input type="checkbox"/> |
| Pagers or personal data assistants: | <input type="checkbox"/> | <input type="checkbox"/> |
| Interactive TV: | <input type="checkbox"/> | <input type="checkbox"/> |
| Kiosks: | <input type="checkbox"/> | <input type="checkbox"/> |
| E-mail or other direct PC communication: | <input type="checkbox"/> | <input type="checkbox"/> |
| In-vehicle navigation systems: | <input type="checkbox"/> | <input type="checkbox"/> |
| Facsimile: | <input type="checkbox"/> | <input type="checkbox"/> |
| 511 Telephone System: | <input type="checkbox"/> | <input type="checkbox"/> |
| Do not distribute information: | <input type="checkbox"/> | <input type="checkbox"/> |

24. Please check all the types of information that your agency distributes to the public

	Previous Reponse	2006 Response
Arterial travel times:	<input type="checkbox"/>	<input type="checkbox"/>
Arterial travel speeds:	<input type="checkbox"/>	<input type="checkbox"/>
Incident information:	<input type="checkbox"/>	<input type="checkbox"/>

25. Which of the following technologies does your agency use to distribute pre-trip traveler information? (Check all that apply)

- Internet or wireless systems
- 511
- Other (non-511) telephone systems
- TV/Radio
- Kiosks

26. Which of the following technologies does your agency use to distribute en-route traveler information? (Check all that apply)

- Wireless systems
- 511
- Other (non-511) telephone systems
- Radio
- In-vehicle systems

PARKING MANAGEMENT

27. Does your agency deploy parking management data collection systems that monitor the availability of parking?

- Yes
- No

28. Does your agency deploy parking management systems that disseminate parking availability information to drivers?

- Yes
- No

29. Does your agency deploy parking fee payment systems to simplify payment for customers and reduce congestion at exits to parking facilities?

- Yes
- No

INTEGRATION

30. Does your agency provide arterial travel time, speed, and condition information in real-time to the following type of agencies?

	<i>Previous Reponse</i>	2006 Response	
		Yes	No
Agencies involved in highway incident management:		<input type="checkbox"/>	<input type="checkbox"/>
Freeway Management Agencies:		<input type="checkbox"/>	<input type="checkbox"/>
Arterial Management Agencies:		<input type="checkbox"/>	<input type="checkbox"/>
Public Transit Agencies:		<input type="checkbox"/>	<input type="checkbox"/>

31. Does your agency receive, in real-time, arterial travel times derived from vehicle probes from any toll collection agency?

Previous Reponse

2006 Response

- Yes
- No
- No toll collection:

32. Does your agency share, in real-time, timing plans with another agency, coordinate changes to timing plans with another agency, and/or turn over control of signals to another agency?

	Previous Reponse	2006 Response	
		Yes	No
Share timing plans information in real-time:	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>
Coordinate changes to timing plans:	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>
Turn over control of signals:	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>

33. Which of the following field devices do you turn over or share control of to/with another agency? (Check all that apply)

- CCTV cameras
- Dynamic message signs
- Highway Advisory Radio
- Dynamic lane assignment

34. If your agency turns over or shares control of any field devices, how is integration achieved? (Check all that apply)

- Regional guidelines
- Non-binding or informal MOU
- Agency policy
- Formal legal interagency agreement
- Other (please specify):

TRAFFIC INCIDENT MANAGEMENT

Service Patrols:

	Previous Reponse	2006 Response
35. Total number of arterial miles patrolled by service patrols	<input type="text"/>	<input type="text"/>
36. Total number of vehicles operated	<input type="text"/>	<input type="text"/>

Incident Detection and Verification Methods:

Please provide the miles covered by each of the following incident detection/verification methods:

	Previous Reponse	2006 Response
37. Free cellular phone call to a dedicated phone number other than 911	<input type="text"/>	<input type="text"/>
38. Computer algorithms	<input type="text"/>	<input type="text"/>
39. CCTV	<input type="text"/>	<input type="text"/>

40. Are the CCTV images made available to the public?

Previous Reponse

2006 Response

- Yes
 No
 Don't know
 No CCTV

41. Which of the following technologies/methods are used by your agency to detect arterial incidents? (Check all that apply)

- Inductive loop or acoustic roadway detector technologies
 Wireless enhanced 911 systems
 Mayday or Advanced Crash Notification (ACN) systems
 Traveler reported information

42. Does your agency deploy variable speed systems?

- Yes
 No

43. Does your agency deploy speed enforcement technologies on arterials?

- Yes
 No

44. Do your agency deploy bicycle or pedestrian systems (e.g., pedestrian detectors, pedestrian activated lighted crosswalks, specialized pedestrian signals such as 'countdown' WALK/DON'T WALK signals and bicycle-actuated signals)?

Previous Reponse

- Yes
 No

45. Does your agency deploy special event systems (e.g., traffic signal operating plans, temporary lane restrictions, traveler guidance, or other measures)?

- Yes
 No

46. Does your agency use video imaging to assist with data collection at arterial incident scenes to speed the reopening of travel lanes?

- Yes
 No

47. Does your agency deploy temporary traffic control devices, such as portable message signs and lane control signs, to help ensure the safety of arterial incident scenes?

- Yes
 No

ITS STANDARDS AND REGIONAL ITS ARCHITECTURE

48. Please check the ITS Standards that you are using (deployed or in current RFP) or considering (assessing for use) in your agency's systems from the list below.

- | Using | Considering |
|--------------------------|---|
| <input type="checkbox"/> | <input type="checkbox"/> AASHTO-ITE TM 2.1, Standards for Traffic Management Center-to-Center Communications (TMDD) (http://www.standards.its.dot.gov/fact_sheet.asp?f=17) |
| <input type="checkbox"/> | <input type="checkbox"/> IEEE 1512 – Family of Standards for Incident Management Message Sets (http://www.standards.its.dot.gov/fact_sheet.asp?f=12) |
| <input type="checkbox"/> | <input type="checkbox"/> SAE J2354 – Message Set for Advanced Traveler Information System (ATIS) (http://www.standards.its.dot.gov/fact_sheet.asp?f=54) |
| <input type="checkbox"/> | <input type="checkbox"/> APTA TCIP Dialogs – Transit Communications Interface Profile (http://www.standards.its.dot.gov/StdSummary.asp?ID=411) |

49. Please check the equipment packages (from the list below) define in the ATIS1-Broadcast Traveler Information Market Package that are featured in your Regional ITS Architecture (if any).

- Basic Information Broadcast
- ISP Traveler Data Collection
- Personal Basic Information Reception
- Remote Basic Information Reception
- Basic Vehicle Reception

TRANSPORTATION MANAGEMENT CENTER

50. Does your agency operate a Traffic Operations Center (TOC) or Transportation Management Center (TMC)?

- Yes. What is its name?
- No

Please answer questions 52 through 62 only if you operate a TOC/TMC

51. Center location (address):

52. What is the geographical area of coverage or area of responsibility?

53. Which of the following items describe the functional capabilities of your TOC/TMC? (Check all that apply)

- Network or roadway surveillance and data collection
- Incident management (e.g., detection, verification and monitoring of incident status)
- Information dissemination to other agencies (public, private and/or interagency)
- En-route driver information (dynamic message signs, highway advisory radio, in-vehicle systems)
- Environmental monitoring (e.g., air quality, noise and weather)
- Special event traffic management
- Evacuation management and traffic coordination
- Emergency services traffic control coordination
- Ramp management and control
- Lane management and control (e.g., HOV, reversible lanes)
- Corridor management/traffic signal coordination or control
- Network performance monitoring, evaluation and reporting
- Road Weather Management
- Other (please specify):

54. Select the 3 most important factors in making a decision to invest in a TOC/TMC from the list below. Please rank your choices using a scale of 1-3 where 1 = most important.

	Agency cost savings
	Incident management
	Voter or customer satisfaction
	Improved environment
	Improved travel reliability
	Improved safety
	Evacuation management
	Other (please specify): <input style="width: 350px; height: 20px;" type="text"/>

55. What tools, resources, or support mechanisms are most helpful for implementing ITS standards? (Check all that apply)

- Training courses
- Published standards provided for free
- Workshops
- Web sites
- Forums
- E-Mail bulletins
- Software tools
- Case studies
- Peer to peer
- Guidance documents
- Other (please specify):

56. Select the 3 most effective methods in persuading the public to support deployment of your TOC/TMC from the list below. Please rank your choices using a scale of 1-3 where 1 = most effective.

	Open meeting with the public
	Contractor provided briefings
	Emergency situation
	Public involvement
	Newspaper articles and other local media (e.g. radio, TV)
	Scanning tours for elected officials
	On-line message boards
	Other (please specify): <input style="width: 350px; height: 20px;" type="text"/>

57. Approximately what percentages of the following funding sources are used to finance ongoing TOC/TMC operations?

Percent

	% Local (Including toll revenue)
	% State
	% Federal
	% Private
	% Other(please specify): <input style="width: 350px; height: 20px;" type="text"/>

58. What methods (e.g., the use of a common technology) has your agency employed to facilitate interoperability with other agencies? (Check all that apply)

- Use of ITS standards
- Purchase of the same hardware
- Purchase of the same software
- Use of contractor developed interface
- Development of regional standards
- Other (please specify):

59. What measures have you used to manage the potential for technological obsolescence of your TOC/TMC technology?
(Please describe)

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60. Select the 3 most important legal issues involved with making a decision to deploy a TOC/TMC from the list below. Please rank your choices using a scale of 1-3 where 1 = most important.

<input type="checkbox"/>	Rules and regulations	
<input type="checkbox"/>	Contract disputes and claims	
<input type="checkbox"/>	Intellectual property	
<input type="checkbox"/>	Liabiliby	
<input type="checkbox"/>	Privacy	
<input type="checkbox"/>	Other (please specify):	<input type="text"/>

61. Select the 3 most effective methods for recruiting TOC/TMC personnel from the list below. Please rank your choices using a scale of 1-3 where 1 = most effective.

<input type="checkbox"/>	College outreach	
<input type="checkbox"/>	Advertising in local media	
<input type="checkbox"/>	Recruiting services	
<input type="checkbox"/>	Notices in trade publications	
<input type="checkbox"/>	Other (please specify):	<input type="text"/>